Polaris Charter School

Facility Management Plan

2020-2024 Five Year Facility Master Plan

And Educational Specification

2019 Charter Application

Executive Summary

Polaris School Overview

Polaris School is a grade 6, 7, and 8 mid-school applying to Public Education Commission (PEC) for state authorization during summer 2019. The Notice of Intent was submitted to New Mexico Public Education Department and to Los Alamos Public School District before January 8, 2019.

Search for a suitable school facility has begun. Written requests in Attachment 1 inquiring about potential school sites were sent to Superintendent Kurt Steinhaus at Los Alamos Public Schools on 26 March 2019.

No formal response has yet been received.

At capacity enrollment for Polaris School is potentially 240 students after fifth year of operation. However, based on enrollment table later in this FMP, Polaris School may not reach that level of enrollment.

Polaris School Founding Team acknowledges reviewing the Statewide Adequacy Standards (NMAC 6.27.30) and the Charter-Alternative School Statewide Adequacy Standard Variance.

1 Mission and Goals

1.1 Goals

1.1.1 Mission

Polaris School's mission is to engage students in the community, environment, history and culture of Northern New Mexico through personalized hands-on learning experiences that strengthen and support student well-being and intellectual growth.

[Refer to I. Academic Framework A. Mission]

1.1.2 General Educational Philosophy

We believe that the complex challenges facing our world require active citizens who are competent critical thinkers, innovators, collaborators and communicators. Polaris will prepare

young people for success by personalizing learning and engaging students in real world experiences that require deep learning and application of skills. Students will be empowered with the knowledge, skills, mindsets, and confidence vital to successfully navigate through the future and shape our local, regional, and global communities.

We believe that each person plays an essential role in shaping our society. Our targeted student population is a group of students who do not have "buy-in" to their own education and often fail to see the relevance in the day-to-day learning of traditional schooling, and we believe that a place-based learning experience will help students be more academically proficient than they might have been otherwise.

Polaris School seeks to accomplish the following outcomes

1) Academic Outcomes
   Students will demonstrate measurable academic growth that meets or exceeds annual yearly progress goals in Math and English Language Arts as measured by state assessment tools.
2) Social Emotional Learning Outcomes
   Students will become agents of their own learning, engaged and prepared with the skills and knowledge to become confident learners prepared for future challenges.
3) Active Citizenship Outcomes
   Students will develop skills to engage and innovate and become prepared with tools to realize that they are an essential part of their own community and to realize the impact they can have as a global citizen.

How Polaris School will achieve these outcomes

Our stated academic, social-emotional and active citizenship outcomes will be realized through a place-based learning model that leverages the local community and landscape as a framework for learning. This place-based model uses projects, student mastery, personalized learning, and habits of success/social emotional learning to focus school decisions regarding school climate and culture, curriculum and instruction, teacher capacity, assessment, organization, and school leadership in order to achieve our three outcomes.

Mastery: Polaris School puts the learner at the center of our program. A competency-based system ensures that students move through the program only by demonstrating mastery of learning targets for a performance indicator at a particular grade level. Performance indicators are linked to New Mexico and national academic standards. Competency-based learning enable students, teachers and families to clearly understand the needs of each student and allows them to tailor learning to achieve academic growth. Since every student will be individually monitored, educators will be able to identify students who are struggling and adjust learning strategies throughout the year to keep students moving forward. This will ensure that Polaris achieves high academic outcomes.

Habits of Success and Social-Emotional Learning: Students need opportunities to develop positive study habits and social-emotional skills to succeed professionally and personally. Polaris will teach and support development and practice of these skills through advisory time and restorative practices that are integrated into the school day. Students will learn how to set and achieve their own goals, practice self awareness, develop positive relationships, and work collaboratively.

"Children who are better able to self-regulate have better relationships with teachers and peers and are seen by teachers as more academically and socially competent (Blair & Diamond, 2008). These factors are associated with greater engagement in school." (Farrington et al., 2012; Murray et al., 2015; Zelazo, 2015)

"Self-regulation-related skills and attributes are associated with greater likelihood of graduating from college, and better health and wealth in adulthood." (Osher, Cantor, Berg, Steyer, Rose, 2017)

"Research also shows that students are more motivated when they experience support and belonging." (Osher, Cantor, Berg, Steyer, Rose, 2017, p.18)

"Studies have shown that when students perceive their classrooms as encouraging personal autonomy, their engagement increases." (Armstrong, 2016, p.40)

Projects: Authentic interdisciplinary learning experiences and projects provide opportunities for students to practice 21st century skills in their local community. Projects provide opportunities for students to practice active citizenship through collaboration, complex problem solving, leadership, and perseverance. Students will use Design Thinking as an iterative process and framework to solve problems.

"Unfortunately, middle schools and high schools often are organized in a way that does not fit the developmental needs of youth in this age group." (Eccles & Roeser, 2009; Juvonen, Le, Kaganoff, Augustine, & Constant, 2004; Lee & Smith, 1997).

"Although adolescents need more autonomy and connectedness, they often experience a loss of autonomy, as rules become harsher and connections to adults—who now must work with more students—become more difficult to maintain. Providing enriching opportunities in homes, schools, and communities helps adolescents fulfill their potential and experience increasing independence. In addition, investing in adolescence means investing in the next generation of parents and other adults who will be contributing to the positive development of young children. All adolescents need positive and sustained relationships with competent and caring adults who can provide exposure to life-skill-building activities; opportunities to actively participate and take leadership in family, school, and community activities; and provide clear standards for behavior and norms." (Bond, 1999; Geisz & Nakashian, 2016; Lerner, 2004)

"In addition, studies of young adults suggest that mindfulness training may promote increases in neural integration. These studies have found that mindfulness training is correlated with increased interconnectivity of the connectome, and growth of the corpus callosum, the hippocampus, and the prefrontal region." (Cole, 2014)

Personalized: Learning is personalized to ensure that all students demonstrate mastery of competencies in a variety of ways at a variable pace. Along with these personalized pathways related to skill mastery, voice and choice will be a key component to achieving student-centered learning. With instructor guidance, students will grow the capacity to begin driving project direction that helps make them agents of their own learning. A report by the RAND corporation and commissioned by the Bill & Melinda Gates Foundation "found that students in schools using personalized learning strategies made greater academic progress, over the course of two years, than a comparison group of students with similar academic performance and from schools with similar demographic profiles." (Pane, Steiner, Baird, Hamilton, 2015)

[Refer to I. Academic Framework]

1.1.3 Community Engagement

Polaris School directly engages the community through educational project based learning experiences, use of community places as educational resources, and during student service projects. Community members will be part of classroom learning and projects. Students will venture into community places to learn from community members and conduct project activities.

Essential Facility Components

Each Place School learning environment will support student demonstration and community assessment of student work. To this end, the facility should have the following elements:

1. Dedicated Maker Space or Create Space that includes Art Lab for students to build, design, and prototype. This space can range from a location in the classroom with clear supplies available to build and make to a dedicated fabrication lab.
2. Access to technology at the age determined by the school.
3. Clear space for mapping of community connections. Schools may choose to have a regional map to articulate community partnerships and projects on public display at the school entrance.
4. Documentation wall for community members to see project documentation and reflection. A dedicated space(s) (such as a wall) in the school should be used for project curation.

[See Essential Space discussion in Section 3.1 Facility Goals and Concepts of this document]

1.2 Process

1.2.1 Data Gathering and Analysis

Authorized contact on issues and questions related to this document is:

Bill Hargraves
velarde.vines@gmail.com
505 695 0001

Capital Planning and Decision Making Process

After Polaris School is authorized, the Governing Board will be responsible for capital planning and decision making. The Facilities Committee will continue to search for school facility. The Finance Committee will analyze costs and revenue sources to use for facility lease or purchase. Both Committees will during this process work closely with the Education & Culture Director and the Operations Director; involve community, parents, and students; and report monthly to the Governing Board.

Community Input

The Polaris School founding team has a long history of dialogue with the community about educational options.

For the past three years members of the community and Los Alamos Public Schools have been in open dialogue about new educational options for its students. Initially in 2015 a diverse team of community members and educational professionals embarked on a nine-month journey to reimagine our high school as part of the national XQ Foundation's competition.

Since the Polaris Founding Team began meeting in May 2017 our members have presented to more than a dozen local groups including the Family Strengths Network, Informal Educators, Los Alamos School Board, Partnership in 21st Century Education, VOICES Los Alamos, Los Alamos Historical society, Pajarito Environmental Education Center, and the Los Alamos Public Schools Foundation. As well as many one-on-one meetings with individual community stakeholders to gather feedback and community support for the school.

A public Launch event on December 1, 2017 attracted approximately 120 participants who were invited to participate in hands-on, place-based activities to simulate the kind of learning students at Polaris will engage in.

During 2018 Founding Team members continued community dialog, identified Governing Board members, and reached out to Los Alamos County Council for facility support.

Similar community engagement activities will continue after authorization and will be lead by the Facilities committee of the Polaris School Governing Board.

[See IV. Evidence of Support]

Facilities Committee

Membership of the Facilities standing committee of the Polaris School Governing Board is:

Name	Position
Facility Committee Chair	Governing Board Member
Trish Maes	Community Member
Kelly Meyers	Community Member

Finance Committee
Membership of the Finance Committee of the Polaris School Governing Board is:

Name	Position
Finance Committee Chair	Governing Board Member
Hugo Hinojosa	Community Member

2 Protected Conditions

2.1 Educational Programs and Delivery Methods

2.1.1 Programs Overview

Polaris School will adopt a place-based learning model that leverages the local community and landscape as a framework for learning. Academic achievement will be realized through a design thinking process. The future requires individuals who can collaborate and tackle complex challenges. Therefore our faculty and students will focus on new ways of thinking and working through real-world issues at the school, local and global levels. Using design thinking we will learn to embrace challenges, explore new strategies,value input from others, and innovate solutions. Our innovation driven learning culture will be supported by continuous iterative cycles of investigation, design, implementation, and evaluation.

Potential Joint Use Facilities:
Polaris School facilities plan to keep some school spaces open after school hours for community use. While details need to be defined after the school opens, some school spaces available to the community may be: Maker Space and Art Lab, outdoor gardens and learning spaces. Polaris

School expects to use community spaces such as Mesa Public Library, Family YMCA, Teen Center, and other spaces as arranged.

General Instructional Organization and Scheduling:

Polaris School proposes an maximum enrollment capacity of 240 students split among grades 6, 7, and 8. Depending on demand and facility space, first year enrollment will be small, approximately 75 students. Growth is planned to be slow to maximize potential for success given the high number of innovations being used in Polaris School.

Daily Schedule:

8:30 - 9:00 Advisory time
9:05 - 10:35 Math Skills
10:35 - 10:50 Brain Break
10:50 - 12:20 Language Arts Skills
12:25 - 12:55 Lunch
1:00 - 2:20 Integrated Learning/Group work (SS/Sci)/Collaborative Teaching
2:25 - 3:35 Studio Elective- Visual and Performing Arts Art/Music/Student Choice
3:35 - 4:30 After School- Open Studio/Maker Space

Teacher collaboration (8-8:30, 2:00-4:00 and some Wednesday afternoon)
Elective Teachers- part time or aide in the morning/special teacher in afternoon

[See Polaris School Application Section 1 E. (2) Calendar & Schedules]

These calendars and schedules support the Education program.

The Polaris daily schedule creates an environment that is optimal for implementing the innovations, curriculum, and instruction methods needed to achieve the high outcomes of engagement and academic achievement. It uses a block schedule, that allows for advisory time, academic core skills instruction every day, and large blocks of time in the afternoon for project-based integrated learning through independent learning projects and community impact projects.

Academic Core Skills
Polaris School begins with morning time blocks dedicated to building individual academic core skills in mathematics and literacy. During these hour-long blocks of time students will focus on

achieving academic competencies and goals. The purpose of the development of these core skills is to provide the skills and content to implement during projects.

Integrated Learning Time

Integrated learning time is a longer class period to promote deep learning and creative problem solving. This provides time for students to complete authentic place-based projects, such as community impact projects. These complex interdisciplinary projects require students to collaborate with community partners and explore and experiment in authentic settings. Longer blocks of integrated learning time will provide an opportunity for students to work on campus or at off-site learning locations. They also provide time for complex projects, designing solutions, and creating products that require more time to complete.

Block schedules are currently being used by other successful place-based schools, including the Teton school, and are recommended by PEEC, so we believe that it is a reasonable schedule for achieving our mission. Decreasing the number of class periods per day reduces cognitive overload, or the amount of new information that students are exposed to each day, and allows students to focus for deeper learning. A block schedule also reduces the amount of academic time lost due to transitions.

An Example of an Authentic Learning Project

One example of a program that uses authentic project based integrated learning is the National History Day program. This project-based program requires students to do authentic historical research, interpret information, and creatively express and present their findings. The National History Day program has grown from a small competition in 1974 to over half a million students participating in 2018. This popularity demonstrates that many teachers find this kind of project-based learning reasonable. However, even though this program has stood the test of time, the real question is does it work? Research from the National Program Evaluation Summary in 2011 shows that middle and high school students from Colorado, New Jersey, South Carolina and Texas, who participate in the National History Day Program not only outperform their peers on state standardized social studies tests, but also reading, science and math. "In the Colorado middle school, more NHD students than comparison-group students consistently received Advanced performance on CSAP in writing; 57 percent vs. 42 percent (2007), 46 percent vs. 21 percent (2008); 60 percent vs. 57 percent (2009); and 53 percent vs. 32 percent (2010)." (Sloan and Rockman, 2011). This data indicates that knowledge and skills developed in this kind of project-based program are transferable to other disciplines. Our integrated learning time will provide time for students to successfully participate in this kind of authentic project that leads to higher academic achievement.

This schedule is optimal for achieving high outcomes for our middle school population.

Polaris is designed to serve the needs of adolescent students in grades 6-8. There has recently been significant research into understanding the developmental needs and function of the adolescent brain. Polaris's curriculum, instructional strategies and a schedule are supported by the brain-friendly practices recommended by Thomas Armstrong (2016) and supported by brain-based learning (Jensen, 2008). Our school schedule ensures that there is time to implement these brain-based practices.

[See Polaris School Application Section 1 E. (2) Calendar & Schedules]

2.2 Proposed Enrollment

2.2.1 Enrollment and Phasing of Enrollment

Polaris School proposes a maximum enrollment capacity of 240 students split among grades 6, 7, and 8. Depending on demand and facility space, first year enrollment will be small, approximately 75 students. Growth is planned to be slow to maximize potential for success given the high number of innovations being used in Polaris School. Polaris School enrollment may never reach maximum capacity.

Polaris School Five Year Enrollment Chart

Grade	Year 1	Year 2	Year 3	Year 4	Year 5
6	25	25	75	75	75
7	50	50	50	75	75
8	0	50	50	50	75
Total	75	125	175	200	225

2.2.2 Classroom Loading

During year 1 with 75 students in grades 6 and 7, Polaris School plans for 5 teachers and average student to teacher ratio of 15. Real world classroom teacher to student ratio may vary due to student personalized learning plans and team teaching methods being used in Polaris School.

Year 2 will have 9 teachers and student to teacher ratio of 14. Year 3 will have 12 teachers and student to teacher ratio of 15. Year 4 will have 14 teachers and student to teacher ratio of 14. Year 5 will have 16 teachers and student to teacher ratio of 14.

2.2.3 Classroom and Space Needs

Polaris School proposes Teaching Clusters which are small "neighborhoods" of adjacent seminar rooms, studio spaces, and teachers' offices, designed to promote team teaching as well as a sense of ownership and place.

It's not possible to design these Clusters during the application stage of authorization. However, based on NMSA 6.27.30 with additional square footage for project based learning Polaris School proposes 35 square feet per student with 15 students per traditional classroom as follows:

Year	Number of Classrooms	Sq Ft/ Classroom	Total Square Foot
1	5	525	2625
2	7	575	4025
3	9	544	4900
4	10	560	5600
5	12	525	6300

In best case of being able to build a school, square footage should be based on year of highest need which is year two at 575 square feet per classroom.

However, it's likely that first school year will be in an existing public building and the facility will dictate the enrollment and number of students.

Other School Spaces

Space	Approximated Square Footage Needed
Administrative Office	400-600

Cafeteria	2400
Serving Kitchen, if needed	200-300
Student Supports Pull-out Room	300-600
High Bay: Art Education and Maker Space	800-1000
Library and Technology space	600-800
School Entrance: Community Connection Maps	400
Hallways: Project Display for Community Viewing	As provided
Total Additional Indoor SqFt	5100-6100
Outdoor Greenhouse/Garden	300

2.3 Site and Facilities

Polaris School founding team has been working with local realtor estate professionals to identify potential buildings for a school facility. No public facilities are currently available. Outreach to private building owners has not resulted in any potential facility being identified.

The Polaris School founding team has written letters (see Attachment 1) asking about building availability to Los Alamos Public School District. To date, no building has been identified.

3 Proposed Facility Requirements

3.1 Facility Goals and Concepts

Polaris School facility design facilitates and enables learning using place based methods, self to local to global awareness, project based learning, competency based assessment, leadership and self assessment, community based projects, team teaching, integrated curriculum, student exhibitions and demonstrations, and math, literacy, and technology pathways.

Polaris School will use design concepts for facilities built at the High Tech High schools in San Diego which use similar learning framework. Reference is to the "HTH Facilities and Educational Philosophy" in Attachment 2.

Essential Spaces

Using HTH guidelines, essential spaces in the Polaris school building include:

1. The Commons Room—a centrally located meeting area for student gatherings, exhibitions, presentations, performances, and community meetings.
2. Teaching Clusters—small, adjacent seminar rooms, studio spaces, and teachers' offices, designed to promote team teaching as well as a sense of ownership and place.
3. Multi-Purpose Seminar Rooms—learning spaces with flexible furniture and walls that adapt to accommodate direct instruction, independent student research, group project work, and presentations.
4. Studio Areas—multi-purpose spaces for shared use by groups from adjacent seminar rooms to support individual, small group, and large group activities.
5. Shared Teacher Offices—individual teacher workstations and storage areas, clustered by teaching team and offering direct visual and physical access to adjacent teaching spaces.
6. Gallery Spaces—exhibition walls and areas for display of student work, often located in or along corridors and circulation routes.
7. Specialty Labs—labs and project rooms with access to technology and equipment for learning in specialized areas.
8. Outdoor Learning Spaces—study areas, courtyards, amphitheaters, and performance spaces that extend learning beyond the walls of the school.

At Polaris School a Speciality Labs will be a dedicated Maker Space and Art Lab for students to build, design, and prototype. This space can range from a location in the classroom with supplies available to build and make to a dedicated fabrication lab.

One gallery space at Polaris School will be located at the school entrance and is hallways for community viewing and demonstration. A mapping of community connections will be displayed in the school entrance gallery. This map can be local or regional to articulate community partnerships and projects on public display at other locations in the school building.

The outdoor Greenhouse/Garden supports project based learning and is a pleasant space to use for community and student interactions.

Polaris School design should consider the environment of the site and include site-specific elements as part of security, safety, and learning. Green materials used to build Polaris School should be environmentally safe and sustainable.

Modular or prefabricated buildings should be considered to reduce cost and speed implementation. Sources to consider include:

- ProjectFrog at http://projectfrog.com
- Gen7 at http://www.gen7schools.com
- Oregon Solutions at http://orsolutions.org/osproject/green-portable-classrooms
- Triumph Modular at https://triumphmodular.com/classrooms/custom-modular-schools/
- Ecosteel at http://ecosteel.com/

4 Capital Plan

After Polaris School is authorized, the Governing Board will be responsible for capital planning and decision making. The Facilities committee and the Finance Committee will continue to search for school facility, report regularly to, and recommend a facility to the Governing Board.

5 Master Plan Support Material

5.1 Sites and Facilities Data Table

Not Applicable

5.2 Site Plan

Not Applicable

5.3 Floor Plan

An example floor plan showing design elements meeting the Facility Goals is in Attachment 3. This floor plan is from High Tech Middle in San Diego, CA. Among the specific design elements supporting Facility Goals are:

Teaching Cluster

Rooms numbered 101 through 107 form a teaching cluster. Four seminar rooms (classrooms 101, 102, 106, 107) surround a studio and commons space (room 103) with shared teacher space adjacent (rooms 104, 105).

Commons Area

A large commons area (numbered 148) is a place for students to gather and a demonstration space for project work, theater, and music. A stage with sound and lighting systems may be part of the commons area. The **mapping of community connections** may be displayed in this common area or in the school entry gallery.

Speciality Lab

Speciality Labs (numbered 128 and 133) support a Maker Space, Art Studio, Music, Theater and other special use and demonstration needs.

Gallery and Display

Exhibition of student work is displayed throughout the school - in corridors, studios, labs, and commons area.

Outdoor Learning Spaces

Outdoor learning spaces should include garden and greenhouse areas, an amphitheater for outdoor performances and demonstrations and an age appropriate play area.

Physical Education

A gymnasium should be sufficient to support the student population at capacity and to meet the physical educational requirements of New Mexico PED. Intramural sports are an important component of Polaris School. The Family YMCA may be engaged to support the PE program and intramural program at Polaris School. The gymnasium may be designed as part of the cafeteria area. However, gymnasium floor must be suitable for team sports such as basketball and volleyball, not be concrete unless outer surface is different and is safe for team sports, and should allow multi-use activities.

Cafeteria and Food Preparation

Cafeteria and Food Preparation should be designed to support the needs of Polaris School as specified in the Charter Application.

High Bay

A high bay is not part of the High Tech Middle design although it is important to support large scale project work, such as for example a tiny house build, or large three dimensional art applications, or multi-stage theater and music shows. Roll up doors provide vehicle access for delivery of materials and removal of completed work. An elevated wrap around walkway with small meeting spaces supports small group collaboration. A high bay might contain some of the Speciality Lab space uses and include the Maker Space and Art Studio.

Library

Library should contain all the traditional support for books and reading areas. Additionally, the library or the commons area may also contain a Self Organized Learning Space (SOLE) as imagined by educational researcher Dr. Sugata Mitra. More information is available at https://startsole.org/ and https://startsole.org/about/ and other web sites.

5.8 Detailed Space and Room Requirements (Ed Spec)

5.8.1 Technology and Communications criteria

Wireless internet access should be available in all rooms of the school. State standard testing requires high speed throughput. General use computers will be located throughout the school including in the high bay and speciality labs to support project work.

5.8.2 Power Criteria

Adequate electrical power should be located throughout the school. High bay and speciality labs should have both 220v and 110v supply to support equipment needs. Charging stations for computers and other equipment should be conveniently located throughout the school.

5.8.3 Lighting and Day Lighting Criteria

Electrical lighting throughout the school should meet the New Mexico State Adequacy Standards. Natural lighting is important. All exterior walls should have ample windows to allow natural light into seminar, commons, and other school areas. Second story windows in high bay should be designed for natural light entry into the elevated walkway and to filter into the floor level of the high bay.

5.8.5 Classroom Acoustics Criteria

New Mexico State Adequacy Standards for noise should be met in all areas of the school.

5.8.6 Furnishing and Equipment Criteria

All areas of the school should be furnished to support each space's purpose. Seminar, common areas, speciality labs, and studios should contain marking board on all walls, hard surface floors, desks, seating, and other work areas that are multipurpose, flexible and easily rearranged by students to accommodate multiple uses.

5.8.9 Criteria Sheets

Instead of replicating material in this document, see Attachment 4, "High Tech Middle Clairemont: Owner Project Requirements" for detail and examples of criteria and requirements for spaces identified in 5.8.3 and that support the Facility Goals.

Polaris School building renovation or new build design should use the referenced criteria during facility design work that will be specific to the Polaris School building. New Mexico State Adequacy Standards should be meet in the design and construction of Polaris School facilities.

Attachment 1

Letters to LAPS

Superintendent Kurt Steinhaus

2075 Trinity Drive

P.O. Box 90

Los Alamos, NM 87544

Dear Superintendent Steinhaus:

We write on behalf of the founding board for Polaris Charter School (PCS), to inquire again about Los Alamos Public Schools (LAPS) facilities, per the requirements of New Mexico Public Schools Facilities Authority (PSFA).

If authorized, the PCS will be locating within Los Alamos County with a school opening date of August 2020. The search for a suitable school facility has begun. Ideally at operating year five Polaris needs about 12,400 square feet; however, for opening the school in year one, Polaris needs only 3000 square feet. To that end, the PCS founding team requests a list of LAPS owned facilities that are presently unoccupied, partially unoccupied or anticipated to become unoccupied within the next 18 months. Secondly, the PCS founding team requests a list of land owned by LAPS indicating the number of acres of each parcel and number of building, if any, located on each parcel.

Thank you for being willing to cooperated with the PCS founding team during our search for a suitable facility and/or location.

Respectfully,

Trish Maes Kelly Myers

Trish Maes, RE/MAX First

Kelly Myers, RE/MAX First

116 Central Park Square

Los Alamos, NM 87544

505-412-9877, trishmaes@outlook.com

505-412-9683, kmyers4@gmail.com

Cc: LAPS School Board: Jenny McCumber, Ellen Ben-Naim, Andrea Cunningham, Bill Hargraves, Stephen Boerigter

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3451450544

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Product Description	Sale Qty	Final Price
First-Class Mail Letter	1	$0.55
(Domestic)		
(LOS ALAMOS, NM 87544)		
(Weight:0 Lb 0.30 Oz)		
(Estimated Delivery Date)		
(Thursday 03/28/2019)		
Affixed Postage	1	($0.55)
(Affixed Amount:$0.55)		
Total		$0.00

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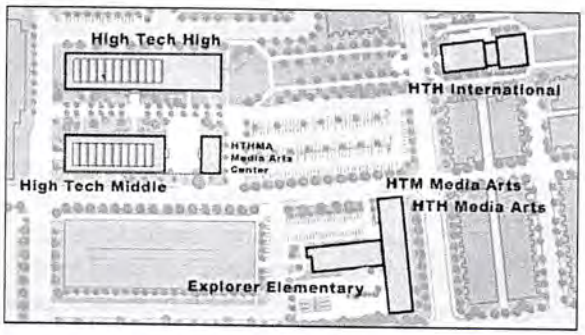
Attachment 2

HTH Facilities and Educational Philosopy

HTH Facilities and Educational Philosopy

The original High Tech High opened in September 2000 in a newly renovated 38,500 square foot facility at the former Naval Training Center in San Diego (Point Loma), CA. Since then HTH has opened five additional schools on the same campus, creating a "village" of three high schools, two middle schools, and an elementary school.



Whether renovating or building anew, HTH develops facilities that support its design principles of personalization, common intellectual mission, and adult-world connection. The facilities are attractive, economical, flexible, professional, and responsive to the needs of their inhabitants.

HTH buildings are visited by architects, school planners, and builders nationwide, who see our facilities development approach as a highly successful model. The original High Tech High received a "2001 Educational Design Excellence Award" from the American School & University Architectural Portfolio. The High Tech High, High Tech Middle, and High Tech High International buildings received prestigious Honor Awards in the 2002, 2003 and 2005 Design Share Competitions respectively. The Silicone Valley/San Jose Business Journal named High Tech High Bayshore the 2005 "Redevelopment Public Project of the Year."

HTH has won these awards while achieving great economies. The average student seat cost is approximately $16,500/seat, which is as much as 75% less than student seat costs of other public school facilities now being built across the state.

A Transparent, High-Performance Work Environment

Visitors to any High Tech High remark that it looks and feels more like a high-performance workplace than a school. With beautiful textures and colors, lofty ceilings, comfortable furniture, informal meeting areas, and lots of interior and exterior windows, our facilities communicate a high level of trust and respect for the work of teachers and students. Visitors are struck by the effect on students of all ages, who can be seen interacting with adults in collegial, respectful, and engaged ways.

HTH facilities have been designed to support key program elements: team teaching, integrated curriculum, project-based learning, community-based internships, frequent student presentations and exhibitions. Our buildings aim for a high level of "transparency", to make each school's particular culture of learning readily visible to its inhabitants. To this end, every wall surface in the school's public and circulation spaces offers a place either to exhibit student projects or to look (through abundant expanses of glass) into the school's dynamic seminar rooms, conference rooms, and specialty labs. Even the ceilings are used to showcase student work, with projects such as human powered submarines, mobiles, and sculptures suspended from the exposed truss systems. Fifteen minutes of wandering through any High Tech High building should be enough to give any newcomer a strong sense of what that particular HTH learning community is about.

Essential Spaces

School design in the United States has remained largely unchanged for the past 100 years. By changing the types of space in HTH schools, and the terminology we use to refer to them, we encourage our faculty and students to find new ways to teach and learn. Creating a new language of design, both spatially and verbally, helps give form to the HTH vision.

The key spaces within HTH buildings that are generally not found in traditional school facilities include:

1. The Commons Room—the intellectual hub of the school, a centrally located meeting area for student gatherings, exhibitions, presentations, performances, and community meetings.
2. Teaching Clusters—small "neighborhoods" of adjacent seminar rooms, studio spaces, and teachers' offices, designed to promote team teaching as well as a sense of ownership and place.
3. Multi-Purpose Seminar Rooms—learning spaces with flexible furniture and walls that adapt to accommodate direct instruction, independent student research, group project work, and presentations.
4. Studio Areas—multi-purpose spaces for shared use by groups from adjacent seminar rooms to support individual, small group, and large group activities.
5. Shared Teacher Offices—individual teacher workstations and storage areas, clustered by teaching team and offering direct visual and physical access to adjacent teaching spaces.
6. Gallery Spaces—exhibition walls and areas for display of student work, often located in or along corridors and circulation routes.
7. Specialty Labs—labs and project rooms with access to technology and equipment for learning in specialized areas such as biotechnology, mechanical engineering, and graphic design.
8. Outdoor Learning Spaces—study areas, courtyards, amphitheaters, and performance spaces that extend learning beyond the walls of the school.

HTH Design Considerations and Buildings

One important characteristic of High Tech High buildings is their adaptability to the changing needs of HTH students and faculty. Our thinking about how best to achieve this evolves with each new building we design. Our students and teachers are quick to tell us what works and what doesn't. From the planning of commons rooms, to seminar rooms, to studio spaces, to storage areas, we have learned that it's important to try new things and not be afraid to make mistakes along the way. The design considerations that inform our thinking include:

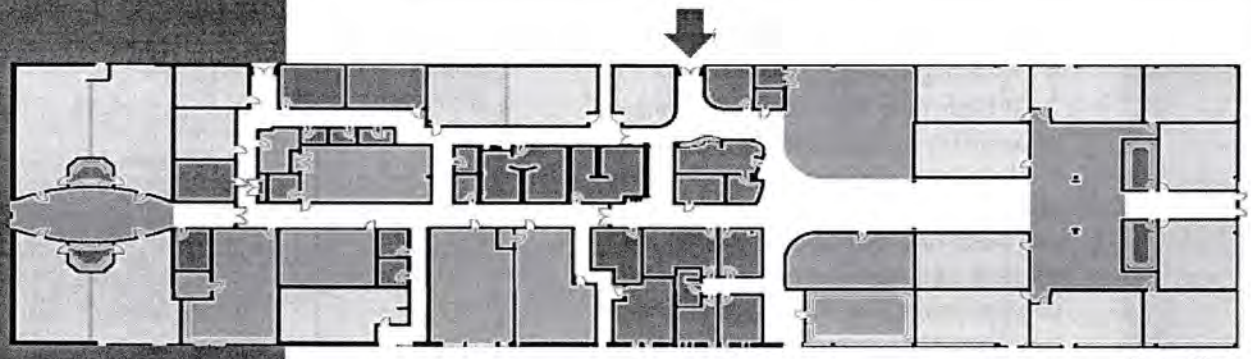
1. Flexibility
Seminar rooms and public spaces must adapt to multiple uses. For all spaces, this means wireless laptop access and sturdy but easily reconfigurable furniture. Seminar rooms and specialty labs must have hard surfaced floors for easy cleaning (projects are messy); sinks for project clean-up; adequate locked storage; good control of ambient light; plentiful electrical outlets; dependable sound and projection systems; data and voice access; and movable walls for team teaching.

2. Ownership
HTH achieves a personalized environment by creating small learning clusters within its already small learning community. This approach promotes a high degree of ownership, as students and teachers decorate and customize their classrooms and studio areas to reflect who they are and what they are working on. Public spaces such as commons rooms and gallerias are used by the larger school community in the same way.

3. Transparency
Unlike traditional school buildings, HTH facilities are transparent, with easy viewing to and from all offices, conference rooms, and seminar rooms. Copious amounts of glass create an atmosphere of "visible learning." Large areas such as commons rooms and studios are located along main circulation routes to promote a sense of openness and coherence.

4. Originality
Although HTH facilities may appear simple and unassuming from the outside, the interiors elicit an immediate "wow" upon entering. For some visitors it is the openness that is most surprising. For others it's the unexpectedly non-institutional look and feel. In any case, as our teachers and students push the boundaries of active, project-based learning, we are happy to communicate the message to all that, when it comes to school, this is not business as usual.

High Tech High 2861 Womble Road, San Diego, CA 92106



Floor Plan

Room Key

- Seminar Rooms
- Specialty Labs
- Administration
- Commons/Studios
- Support

Costs
Total Cost
$6,485,000.00

Renovation Cost
$4,785,000.00

Building Cost
$1,700,000.00

Total Square Footage
43,500 sf

Cost PSF
$149.00

Collaborating Architects:
The Stichler Group
San Diego, CA

Awards:

***2001 Educational Design Excellence Award* - American School & University Architectural Portfolio**

***2002 Honor Award* - Design Share and School Construction News International Design Competition**

Launched in September 2000 by an industry and educator coalition, High Tech High is a bold innovation in public education. A small, diverse learning community with 450 students grades 9-12, this cutting-edge school is founded on three design principles: personalization, adult world connection, and a common intellectual mission. Innovative features of the academic program include performance-based assessment, daily shared planning time for staff, an emphasis on project-based learning, availability of technology in all classrooms, internships for all students, and close links to the high tech workplace.

Designed as a collaborative effort between the HTH Design Team and The Stichler Group, the project is a textbook project for future, technology-focused educational spaces. In addition to boasting one of the most advanced animation labs in the country, the facility houses state-of-the-art biochemistry and engineering labs and flexible classroom space, all connected to an advanced electronic infrastructure to allow the use of laptops,

audio and visual systems, and Smartboards®. A unique infrastructure places it at the forefront of technology for teaching and learning.

The 43,500 square foot building was formerly a U.S. Navy technical training center, and includes 18 multi-purpose seminar rooms, 7 science and technology labs, a centralized Commons, shared offices for teaching teams, and a large, high-ceilinged open area known as the "Great Room." Students have access to networked laptop computers, and move easily between seminar, lab, and group meeting spaces, both large and small.

High Tech Middle 2861 Womble Road, San Diego, CA 92106

Room Key

- Seminar Rooms
- Specialty Labs
- Administration
- Commons/Studios
- Support

Costs

Total Cost
$4,970,000.00

Renovation Cost
$3,285,000.00

Building Cost
$1,685,000

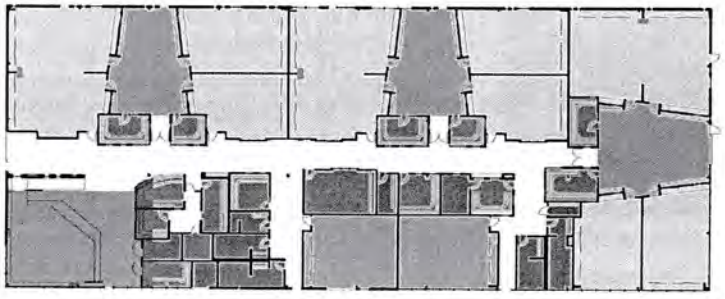
Total Square Footage
27,500 sf

Cost PSF
$180.70

Collaborating Architects:
Carrier Johnson
San Diego, CA

Awards:

2004 Honor Award -
Design Share and School Construction News International Design Competition



Floor Plan

Opened in September 2003, High Tech Middle is the middle school partner of the Gary and Jerri-Ann Jacobs High Tech High in San Diego, CA. A small, diverse learning community with 320 students in grades 6-8, the school is founded on three design principles: personalization, adult world connection, and a common intellectual mission. Innovative features of the HTM academic program include performance-based assessment, daily shared planning time for staff, an emphasis on project-based learning, availability of technology in all classrooms, community-service experiences for all students, and close links to the high tech workplace.

Designed as a collaborative effort between the HTH design team and Carrier Johnson Associates, the project utilizes a completely renovated former warehouse

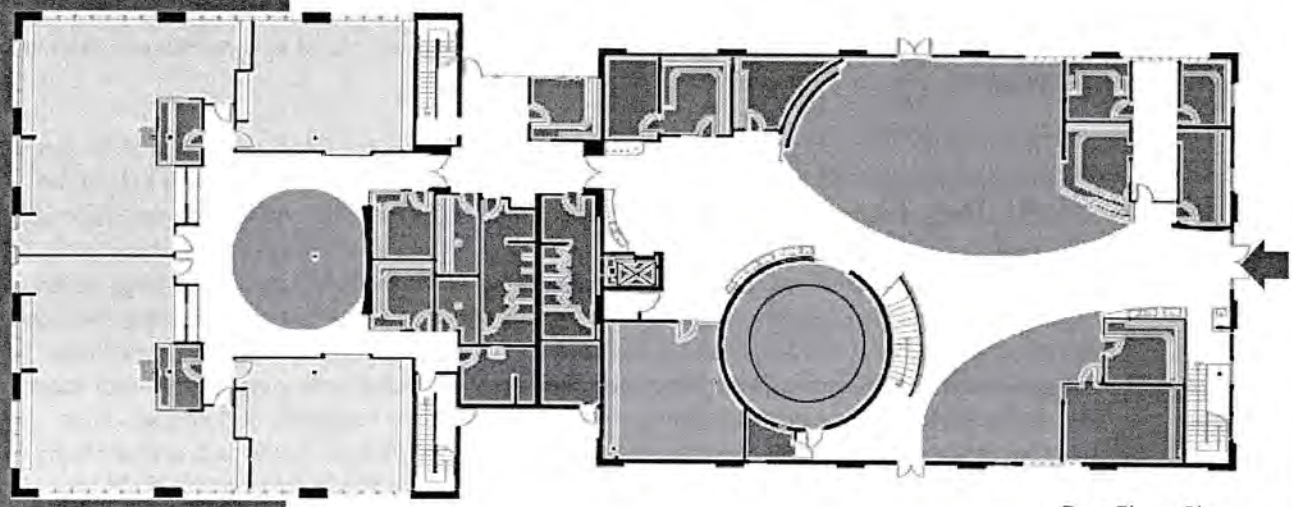
High Tech Middle 2861 Womble Road, San Diego, CA 92106

building adjacent to High Tech High on the grounds of the former Navel Training Center in Point Loma, CA. The 27,000 square foot structure, formerly an air-conditioning training center, boasts saw-tooth skylights and an exposed steel structural system that run its entire length.

The school's interior is a wireless laptop environment designed for ubiquitous technology and maximum flexibility. A large "commons" room serves as the intellectual hub of the school, a space for whole-school meetings, and a backdrop for the formal and informal presentation of student work. Circulation through the building takes place along a sky-lit "gallery" that offers wall space for the exhibition of student work, as well as large vistas into the school's classrooms and administrative spaces. Three learning clusters are located off of the gallery. Each include: a centrally located "studio" space for group meetings, exhibitions, small-group work, and independent study; four multi-purpose seminar rooms designed for project-based learning and integrated team-teaching, and shared office spaces for two teams of three teachers. Other spaces include an Art Lab and a Media Center. An outdoor dining area and amphitheater immediately adjacent to HTM serve to extend its learning environment and take advantage of San Diego's temperate climate.

High Tech High International

2855 Farragut Road, San Diego, CA 92106



First Floor Plan

Room Key

- Seminar Rooms
- Specialty Labs
- Administration
- Commons/Studios
- Support

Costs
Total Cost
$6,485,000.00

Renovation Cost
$4,288,000.00

Building Cost
$2,000,000.00

Total Square Footage
32,000

Cost PSF
$196

Collaborating Architects:
Carrier Johnson
San Diego, CA

Awards:

005 Honor Award -
Design Share and School Construction News International Design Competition

High Tech High International is the third HTH facility to be renovated on the grounds of the former Naval Training Center in San Diego, CA. By completely renovating a former Navy foundry built in 1952, the project team created a collaborative learning space that reinforces the school's emphasis on team teaching, integration of technology, and assessment through presentation and exhibition.

The design solution takes full advantage of the building's large volume and abundant windows to create an open and natural light-filled environment. The result is a series of spaces that allow for both structured and informal interaction between students and faculty — from classrooms and studios, to informal seating areas and multi-purpose function spaces. Varying wall setbacks, heights, textures, along with an abundance of internal windows and natural light, recalls an urban streetscape.

The school's entrance opens on to the Commons, a grand double-height space that includes the school's main reception, a

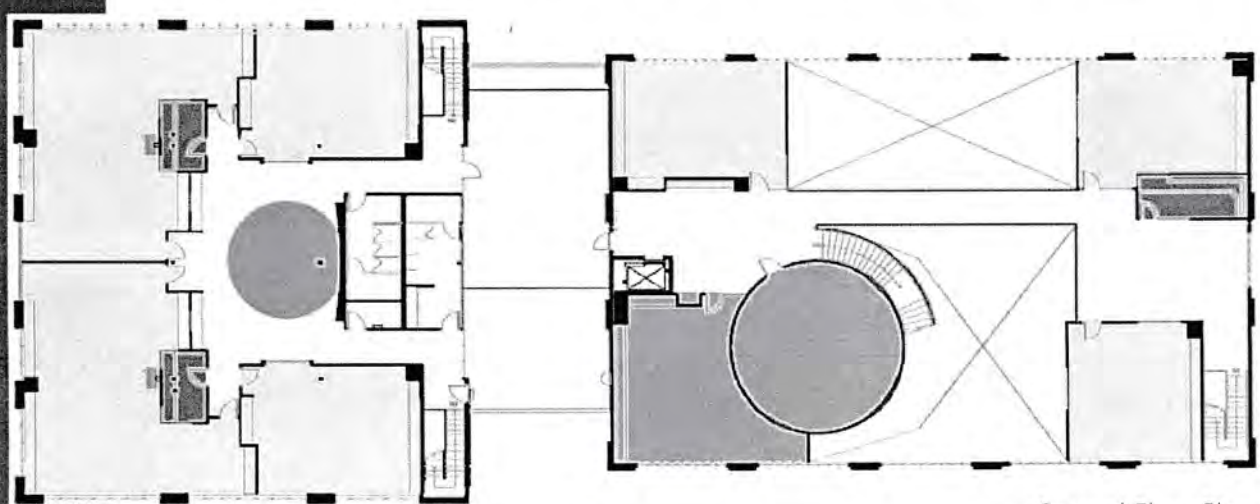
High Tech High International

performance stage, and flexible seating groups. This light-filled room is the main circulation space and is used for entire school gatherings and as an alternative teaching venue. It also serves as a performance space and display gallery for student art work. Administrative offices and conference rooms are located off this space with windows for close monitoring of student activity.

Rising from the Commons floor and wrapped by the main staircase is a cylindrical form that houses the "UN Theater." This classroom in-the-round is a focal point for the internationally-focused school curriculum and includes integrated technology that allows for dynamic teaching and presentation methods.

Classrooms are clustered into grade-specific neighborhoods centered around a studio area. The studios allow for both entire-grade gatherings and additional teaching space. Teacher offices are located adjacent to their corresponding classrooms — a plan that decentralizes the faculty in order to create strong teacher-student connections. Windows from the teacher offices allow for observation of not only classrooms and studios, but also the circulation spaces. This visual connection carries through to the rest of the rooms, and together with the clustering, creates a sense of ownership over the immediate area. Operable partitions that separate classrooms can be opened to accommodate team teaching. These 25-foot wide doors also incorporate marker board writing surfaces and projection screens. Additional media display is introduced with the use of homasote and multi-colored cork tackable surfaces.

Throughout the project, unconventional and environmentally responsible interior finishes are implemented to further reinforce the urban streetscape feeling of the interior space.

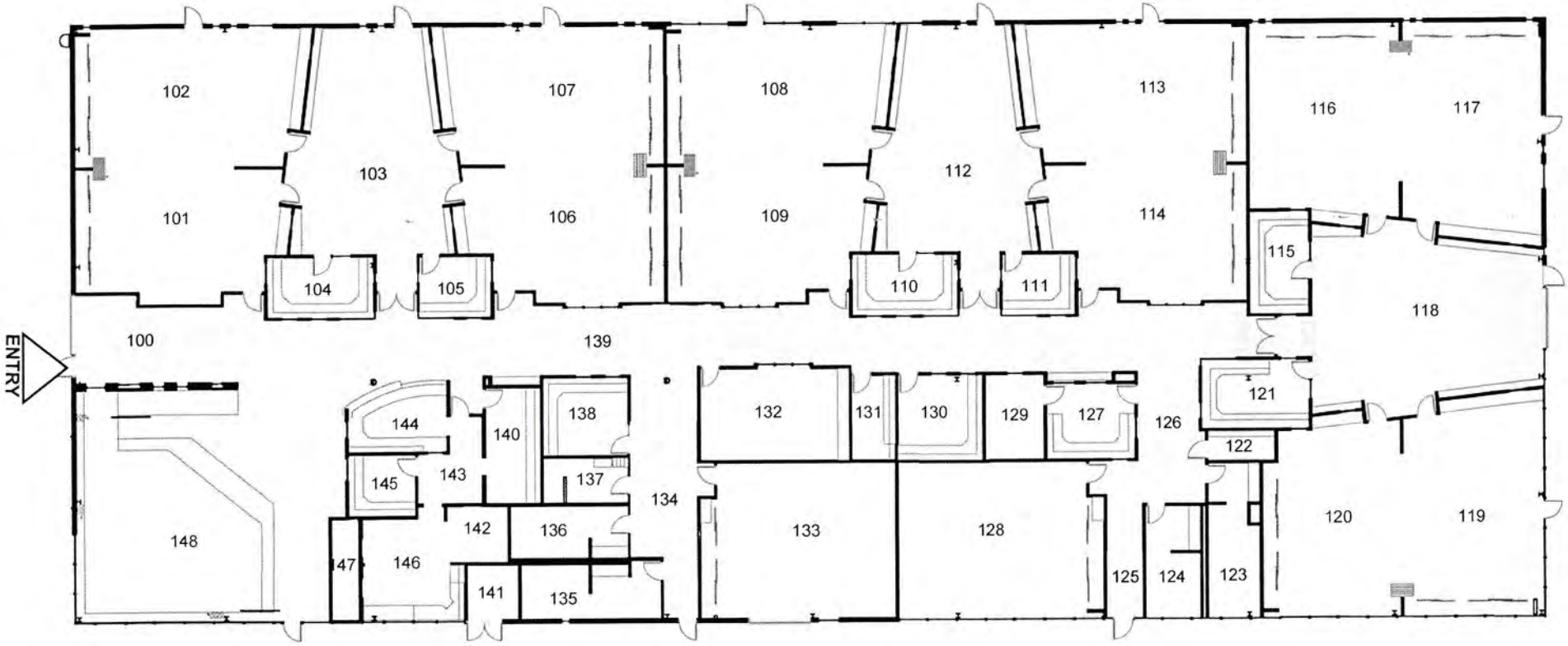


Second Floor Plan

Attachment 3

High Tech Middle Floor Plan

36 HIGH TECH MIDDLE
2359 Truxtun Road



Attachment 4

High Tech Middle Clairemont Owner Project Requirements

HIGH TECH MIDDLE

HIGH TECH MIDDLE CLAIREMONT
SAN DIEGO, CALIFORNIA

OWNER PROJECT REQUIREMENTS

Updated: August 28, 2017 for 288 Students

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Project Description

This project is the development of a new middle school at HTH's Clairemont Mesa Village site. The middle school will share the approximately 20-acre site with an elementary and high school. The property currently has nine buildings that were built by the San Diego Unified School District in 1958-59, and also a full-sized gym built in 1987. Existing campus amenities include a 720-seat theater, a full-sized gym, and an artificial turf, multi-use sports field. It is anticipated that the elementary and middle schools will be housed within the existing classroom and administration buildings, and that the high school will be housed within existing buildings and a newly constructed building. The goal is to have the campus fully developed, and be fully operational no later than the 2019-2020 school year. Below is a table summarizing the projected total enrollment of the campus.

School	Grades	Students	Classrooms	Exploratories	Admin	Support	Appox SF
Elementary	K-5	402	18	3	1	1	29,550
Middle	6-8	288	12	3	1	1	18,330
High	9-12	400	18	8	1	1	50,340
Totals		**1,090**	**46**	**14**			**98,220**

This Owner Project Requirements (OPR) document focuses on the 6th through 8th grade middle school.

The Village of schools will operate during the peak period of approximately 8:00 AM to 4:00 PM. The start and end times for the schools will be staggered to minimize traffic congestion around drop-off and pick-up times.

Many campus amenities will be shared, including student drop-off/pick-up areas, parking, the theater, drama and music rooms, assembly areas, recreation facilities, food services, and some campus-wide staff members, such as Facilities Technicians.

Owner and User Requirements:

This campus will be built following HTH's educational and facilities Design Principles. The Design Principles permeate every aspect of life at High Tech High: the small size of the school, the openness of the facilities, the sustainable design attributes, the personalization through advisory, the emphasis on integrated, project-based learning and student exhibitions, the requirement that all students complete internships in the community, and the provision of ample planning time for teacher teams during the work day.

HTH facilities are designed to support key program elements: team teaching, integrated curriculum, project-based learning, community-based internships, frequent student presentations, and exhibitions. HTH students make use of the flexibility that the buildings afford them, working individually and in groups large and small. Teachers work in teams to design integrated projects that cut across subject area boundaries. Each team shares an office adjacent to the "seminar" rooms in which they teach. These rooms have movable walls that support a variety of room configurations and activities.

HTH interiors aim for a high level of transparency to make each school's particular culture of learning readily visible to its inhabitants. To this end, every wall surface in the school's public and circulation spaces offers a place either to exhibit student projects or to look through, into the school's dynamic seminar rooms, conference rooms, and specialty areas. Even the ceilings are used to showcase student work, as projects such as aircraft, sculptures, or mobiles, may be suspended.

The key spaces within HTH buildings include:

1. Commons Area—the intellectual hub of the school, a centrally located meeting area for student gatherings, exhibitions, presentations, performances, and community meetings.

2. Neighborhoods—small clusters of adjacent seminar rooms, studio spaces, and teachers' prep areas, designed to promote team teaching as well as a sense of ownership and place.

3. Multi-Subject Seminar Rooms—learning spaces with flexible furniture and walls that adapt to accommodate direct instruction, independent student research, group project work, and presentations.

4. Studio Areas—multi-purpose spaces adjacent to Seminar Rooms to support individual, small group, and large group activities such as project work or exhibitions.

5. Shared Teacher Offices—individual teacher workstations and storage areas, clustered by teaching team and offering direct visual and physical access to adjacent teaching spaces.

6. Gallery Spaces—exhibition walls and areas for display of student work, often located in or along corridors and circulation routes.

7. Exploratories—specialty project rooms with access to tools and equipment for learning in specialized areas such as biotechnology, languages, drama, and graphic design.

8. Outdoor Learning Spaces—study areas, courtyards, amphitheaters, and performance spaces that extend learning beyond the walls of the school.

One important characteristic of High Tech High buildings is their adaptability to the changing needs of HTH students and faculty. Reflecting on best practices informs our approach, and students and teachers are quick to tell us what works and what doesn't. Lessons learned are incorporated into our existing schools, not just new ones. The design considerations that inform our thinking include:

1. Flexibility
Seminar rooms and public spaces must adapt to multiple uses. For all spaces, this means wireless access and sturdy but easily reconfigurable furniture. Seminar rooms and Exploratories must have hard surfaced floors for easy cleaning (projects can be messy); sinks for project clean-up; adequate locked storage and recharging of laptops; good control of ambient light; plentiful electrical outlets; dependable sound and projection systems; data and voice access; and movable walls for team teaching with copious amounts of markerboard and pin-up space.

2. Ownership
HTH achieves a personalized environment by creating small learning clusters within its already small learning community. This approach promotes a high degree of ownership, as students and teachers decorate and customize their classrooms and studio areas to reflect who they are and what they are working on. Public spaces such as Commons Area and Galleries are used by the larger school community in the same way. Studios are adjacent to the neighborhood they serve, and are designed such that only those students assigned to that neighborhood generally access the Studio. This secures their long-term work and belongings, as well as allows them to personalize their space.

3. Transparency
Facilities are transparent both literally with large expanses of glass, and figuratively with support mechanisms for curating student work. Easy viewing around corners, to and from all rooms, and distribution of adult areas such as offices and support rooms, ensures that the entire building is easily-managed passively, rather than actively. The large amounts of glass create an atmosphere of "visible learning." Commons Areas and Studios are located along main circulation routes to promote a sense of openness and coherence.

Environmental and Sustainability Goals
Supporting the educational mission, the facilities follow sustainable development guidelines. While many recently built HTH schools have achieved high LEED certification status, the current goal is to meet California's Green Code and not spend valuable construction dollars on other certifications. That being said, HTH expects that all of its buildings will utilize the highest standards of energy efficiency and sustainabilty that are available in today's market.

Energy Efficiency Goals
This project shall exceed California Title 24 Energy Code requirements by a minimum of 12.5%. This will be achieved through efficient building siting, landscaping, building envelope features, fenestration, and a Building Management System which monitors and adjusts the lighting, mechanical, and site irrigation systems.

Equipment and System Expectations
Though not intended to be exhaustive, the following standards provide specific direction regarding issues that have historically proven to be problem areas. Where these Standards exceed minimum code requirements, the Standards shall apply.

Restrooms

A. **Durable Construction:** Restrooms, shower rooms and locker rooms should be constructed to be significantly more durable than most other public areas since they are exposed to heavy usage, frequent cleanings and occasional abuse. This applies to floors, walls and fixtures, as well as any accessories. Construction in these areas should be designed to a significantly higher standard than the minimal requirements of the Life Safety Code.

B. **Cleanable Construction:** Restrooms, shower rooms and locker rooms should also be constructed to be as "cleanable" as possible since they require cleaning so frequently and intensively. As mentioned above, this applies to floors, walls, fixtures, and amenities. For example, the installation of ceramic tile floors, walls and coved ceramic base improve the ability of custodial staff to use heavy duty cleaning equipment and methods (including sanitizing chemicals, disinfectants, etc.) to insure adequate sanitation.

C. **Countertops:** The installation of countertops in restrooms should be avoided. The presence of a countertop significantly increases the surface area to be cleaned and presents an unnecessary labor-intensive task for members of the custodial staff who are trained to clean all surfaces of all restroom fixtures, including piping. Countertops also prevent custodians from being able to clean restroom mirrors safely. Custodians do not routinely carry with them (nor are they recommended to do so) the small step stool required to do such work.

D. **Wall-Hung Fixtures:** All water-closets, waterless-urinals and lavatories should be of the wall hung type. Wall hung fixtures allow for the entire fixture to be cleaned and removes junctures between the fixture and the floor where accumulations of urine salt, dirt, etc. are guaranteed to promote odors. Thus, wall hung fixture significantly enhance the cleanable nature of a restroom. Example allowable fixtures include:
    a. Lavatories: Vitreous china basins with hard-wired sensored faucets and dispensers
    b. Urinals: Vitreous china waterless urinals
    c. Flush Valves: Hard-wired automatic sensor flush valves, dual-flush at females

E. **Restroom Partitions:** All stall partitions should be of a solid-phenolic, floor supported type. Although ceiling-hung partitions facilitate cleaning by avoiding contact with the floor, thus providing unhindered access for cleaning operations, they do not have sufficient structural rigidity for the harsh service environment they must endure. Hardware shall be institutional grade, full-length attachments.

F. **Hand Drying Equipment:** All student accessed restrooms shall have one electric hand dryer per 3 lavatories. In unisex restrooms, provide a roll-type paper towel dispenser in lieu of a hand dryer. The standard hand dryer is the Mitsubishi JetTowel High Speed Air Hand Dryer.

G. **Dispensers:** Toilet tissue, sanitary napkin, soap, and paper towel dispensers should be installed in appropriate numbers and locations in each restroom. A single make and model of each to be installed within all buildings on the campus. This prevents the unnecessary purchase and stocking of unique supply items to accommodate various styles of dispensers. The installation of recessed dispensers or accessories of any type should be avoided since they are very difficult to replace once they become obsolete. Example allowable dispensers include:

a. Toilet Tissue: Kimberly-Clark Professional Windows Twin dispenser for interfolded tissue.
b. Paper Towels (unisex restrooms and classrooms): Georgia Pacific enMotion automated touchless 10" roll paper towel dispenser.

c. Soap Dispenser: Georgia Pacific Enmotion automated touchless foam soap dispenser.

d. Water Closet Seat Covers: Bobrick B-4221 Contura-series seat cover dispenser, wall mounted.

Partitions

A. **Material:** Walls and partitions should be constructed to be more durable than a typical office building, but less durably than a hospital. Since the lower 48" are subject to the most abuse, abuse and mold-resistant gypsum wallboard is required at the lower 48", minimum.

B. **Wall Base:** Custodial crews and students frequently spill liquids on the floor, especially when cleaning up some other mess. All wall base shall be a minimum of 6" high, not 4". Rolled, smooth, coved rubber base is preferred over sectional, textured bases. Rubber wall base shall not be confused with vinyl.

C. **Paints and Coatings:** Walls with a semi-gloss sheen are more easily cleaned than walls with an eggshell finish. All wall, door, and ceiling paints shall be semi-gloss. Pipes and metal frames shall be gloss.

Roofs

A. **Compliance:** The installation/construction and repair/modification of all roofing/water-protection systems should be in complete compliance with the current revision of the NRCA Roofing and Waterproofing Manual. This manual is to be viewed as the "final authority" for establishing the minimum requirements for roofing and waterproofing systems. The requirements of these Guidelines often exceed the minimum requirements of the Manual. When they do, they should be complied with.

B. **Sloped Roofs:** Shingle roofing is not allowed on permanent HTH buildings. Metal roofing is preferred. In order to be considered for approval, a metal roofing system must be warranted for leak-tightness for a minimum of 20 years.

C. **Flat Roofs:** A slope of ¼" per ft. (minimum) is required on all flat roofs. Sloping the deck is preferred to sloping the insulation. Polyurethane foam roofing systems are required unless written authorization is obtained from HTH due to a particular waterproofing detail issue. The roof system must have a 10 year No-Dollar-Limit warranty.

Floors

A. **Standard Hard Surface Areas:** Flooring for standard hard surfaces within HTH buildings shall be polished, lapidolith-hardened concrete floors, which do not require ongoing additional finishes such as "wax" or "sealants" to be periodicallly re-applied. Sheet flooring shall be avoided in hallways because it is difficult to patch. Wood and VCT shall be avoided because of their high life-cycle costs. Classrooms may remain as natural grey, but public areas should receive a penetrating stain color pattern for at least 25% of the floor surface area.

B. **Standard Soft Surface Areas**: Installation of carpeting shall generally be avoided, except in offices. Carpeting is avoided in Galleries, Studios, Commons', Classrooms, and Hallways due to major cleaning problems. Flooring for standard soft surfaces within HTH buildings shall be direct glue broadloom carpet, not carpet tile. Carpet tile has proven to require more maintenance than broadloom. Light colored carpet should be avoided to the greatest extent possible. Mottled patterns that incorporate a variety of "earth tones" are preferrred. They help to mask spots, spills, dirt accumulation, traffice wear, etc. This is especially important in high traffic areas.

Keying Systems

A. Lockset Functions: Lockset functions should be typically as follows:

a. Offices: "Office/Entry Function" (ANSI #F04).
b. Classrooms, Exploratories, etc.: "Classroom Function" (ANSI #F05).
c. Conference Rooms: "Office/Entry Function" (ANSI #F04).
d. Equipment/Custodial Rooms: "Storeroom Function" (ANSI #F07) - Non-optional.
e. Storage Rooms: "Storeroom Function" (ANSI #F07)
f. Public Restrooms: No door. If door is required per Building Code, then the door shall be on an approved hold-open device.
g. Private Restrooms: "Privacy Function" with occupied indicator

B. "Knox" Boxes: A flush mounted "Knox" box shall be installed in the exterior wall of each building. Its purpose is to provide secure storage of critical keys (e.g. for great grandmaster key(s), outside door(s), key cabinet(s), etc.) to enable emergency response personnel to quickly gain access to all areas of the building. It should be located near the building entrance that provides the quickest access to the building fire alarm panel. It should be located approximately 6' above grade, securely anchored internally to the exterior wall structure. Approval of exact location should be obtained from Fire Department prior to installation.

Building Occupant and O&M Personnel Requirements

The HTH Clairemont Mesa Campus will be one of four San Diego County HTH Campuses managed by the High Tech High Charter Management Organization (CMO). The CMO headquarters are located at the Liberty Station Campus in San Diego. At full occupancy, there will be two full-time Day Porters, at least one full-time Facilities Technician, and two gardeners. The Day Porter's duties will include custodial, event setup, and minor maintenance responsibilities. The Facilities Technician will address larger repair issues that arise. There will be five custodians on the campus: two for the high school, one for middle, one for elementary, and one for common spaces (Theater, Gym, Commons).

Training and orientation is mandatory for all building systems prior to acceptance.

For Facilities, the focus for information transfer will be on well-labeled system components such as piping, circuits, light fixtures, receptacles, and panels. In addition, there must be hands-on training, including performance targets linked to the commissioning process, documented on video. Binders with manuals for the installed equipment are mandatory, as are as-built drawings, notes about the design intent, and guidance on operating the building as a holistic system.

For Users, the focus for information transfer will be on emergency response and evacuation procedures, as well as brochures and signage explaining the building's features and benefits to users and the environment. Interpretive signs, literature, and other materials explaining the building's high-performance features should be created to maximize benefits of those features.

Plans and schedules for Post-Occupancy Evaluations are mandatory. Periodic commissioning of building's systems and surveying of occupants on critical issues should be documented, along with the results to identify modifications to this and other projects.

Program Summary

Space Description	a.s.f. per space	Space Quantity	Space Total a.s.f.
Lobby and Waiting Area	600	x 1.0	600
Front Desk	300	x 1.0	300
Director Office	180	x 1.0	180
Dean's Office	120	x 1.0	120
Large Conference Room	450	x 1.0	450
CMO Office	120	x 1.0	120
IT Office	200	x 1.0	200
Inclusion Office	200	x 1.0	200
Speech Path./Occ.Therapy/Social Worker	150	x 1.0	150
Support Area	330	x 1.0	330
	ASF Subtotals		2,650
Seminar Room	800	x 12.0	9,600
Exploratory	960	x 3.0	2,880
Teacher Prep Area	140	x 6.0	840
Studio Area	600	x 3.0	1,800
	ASF Subtotals		15,120
School Storage	100	x 1.0	100
Housekeeping	100	x 1.0	100
Facilities Services	100	x 1.0	100
Data / Elec / Phone Switch Closet	60	x 1.0	60
Building Electrical Room	100	x 1.0	100
Multi-occupant Male Restroom	240	x 1.0	240
Multi-occupant Female Restroom	240	x 1.0	240
Single-occupant Restroom	90	x 1.0	90
	ASF Subtotals		1,030

Interior ASF Totals		**18,800**
Circulation and Grossing Factors	**= 0%**	**0**
Building GSF Totals		**18,800**

Lobby and Waiting Area

Example Space: HTMNC
Space Purpose: Entrance and waiting area for the school, as well as alternate location for staff eating lunch.
Adjacency: Mandatory adjacency to Executive Assistant Workstation.
ASF: 150 asf

Occupancy: 0
Utilization Rate: 0%

Built-in Cabinetry

- None.

Finishes

- Entry Floor: Integral walk-off mat at exterior entry (min. 6' x 6' per 3' wide door)
- Main Floor: Polished concrete with accent stain colors (min. 25% stained)
- Base: May vary.
- Ceiling: May vary.
- Walls: May vary.

Furniture and Furnishings

- Soft seating for 6 persons
- Occasional tables near seating group
- Potted interior plants
- Wastebasket, blue 23-gallon for recyclables, and black 23-gallon for non-recyclables – higher quality than regular rooms
- Signage, after-hours checkin/out sheet on wall-mounted clipboard

Equipment

- Clipboard, clear translucent on hook
- LCD screens for displaying work (2)
- Wireless keyboard for LCD screens

Mechanical

- Shared temperature zone control with similar adjacent spaces
- Integrated with central Building Management System

Electrical

- Lighting may vary.
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.
- Security keypad for alarm system

Systems

- Duplex LAN connection adjacent to each general purpose receptacle around perimeter walls.
- Security Keypad near entry door with instructional signage
- Fire alarm control panel near entry door
- Security camera viewing entry door

Plumbing

- None.

Front Desk

Example Space: HTMNC
Space Purpose: Open workstation to serve as security checkpoint, attendance monitor, and greeter for the school. Should not be "completely exposed" to Commons area, so that they may continue to work while the Commons Area is in use. Should have strong sight lines to entry doors, and at least some sight lines into the Commons Area. Health-related elements may be in separate, but adjacent and visible, space as a "health area".
Adjacency: Mandatory adjacency to Lobby and Copy Room. Preferred adjacency to Commons Area.
ASF: 200 asf

Occupancy: 1 full-time staff and 1 part-time staff
Utilization Rate: 100%

Built-in Cabinetry

- Higher-level transaction surface (min 6 l.f. of 12" deep)
- Lower-level transaction surface (min 3 l.f. of 12" deep)
- Countertop (min 12 l.f. of 24" deep)

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: may vary.
- Walls: may vary.

Furniture and Furnishings

- Lockable Box-Box-File undercounter pedestal
- Lockable undercounter lateral file (2)
- Task arm chairs with casters for specified flooring (2)
- Wastebasket, blue 7-gallon for recyclables, and black 7-gallon for non-recyclables

Equipment

- Manual roller shades, at exterior windows
- Desktop computer
- Telephone with PBX
- Telephone
- Wall-mounted Automatic External Defibrillator and sign
- Wall-mounted first-aid kit

Mechanical

- Shared temperature zone control with similar adjacent spaces
- Integrated with central Building Management System

Electrical

- Lighting may vary
- General purpose receptacles spaced at max 12' o.c. around perimeter walls, and 6' o.c. below counter top
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Duplex LAN connection adjacent to each power receptacle

Plumbing

- None.

Director Office

Example Space: HTMNC
Space Purpose: Office for the head of the school
Adjacency: Preferred adjacency to the Executive Assistant, accessible to primary circulation paths
ASF: 180 asf

Occupancy: 1 staff and 4 guests
Utilization Rate: 100%

Built-in Cabinetry

- Shelves for books and other materials (min 18 l.f. of 12" deep)
- Wardrobe cabinet for books and other materials (min 3 l.f. of 18" deep)
- Countertop with grommets for cabling (min 8 l.f. of 24" deep)

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board
- Windows between office and circulation path(s).

Furniture and Furnishings

- Lockable Box-Box-File undercounter pedestal
- Lockable undercounter lateral file (2)
- Task arm chair with casters for specified flooring
- Armless side chair with casters for specified flooring (3)
- Upholstered side arm chair (1)
- Occasional table (9 sf min.)
- Wastebasket, blue 7-gallon for recyclables, and black 7-gallon for non-recyclables

Equipment

- Manual roller shades, at exterior windows and interior windows
- Telephone with speakerphone connected to LAN
- Printer connected to LAN
- Laptop
- LCD screen (17")
- Wall-mounted markerboard with tack rail and chalk tray (min 6 l.f. x 4' high)

Mechanical

- Independent temperature zone control
- Design system to achieve NC-40 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Dedicated quad receptacle below counter
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Duplex LAN connection adjacent to each quad receptacle below counter

Plumbing

- None.

Dean of Students Office

Example Space: HTHNC
Space Purpose: Office to meet with students and parents
Adjacency: Preferred adjacency to Executive Assistant, accessible to primary circulation paths
ASF: 120 asf

Occupancy: 1 staff and 4 guests
Utilization Rate: 100%

Built-in Cabinetry

- Shelves for books and other materials (min 18 l.f. of 12" deep)
- Upper cabinet for books and other materials (min 6 l.f. of 15" deep)
- Countertop with grommets for cabling (min 10 l.f. of 24" deep)

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board (min STC 43 partitions)
- Windows between office and circulation path(s).

Furniture and Furnishings

- Lockable Box-Box-File undercounter pedestal
- Lockable undercounter lateral file (2)
- Lockable wardrobe cabinet (24x36x84)
- Task arm chair with casters for specified flooring
- Upholstered side arm chair (3)
- Occasional table (9 sf min.)
- Wastebasket, blue 7-gallon for recyclables, and black 7-gallon for non-recyclables

Equipment

- Manual roller shades, at exterior windows, horizontal mini blinds at interior windows.
- Telephone with speakerphone
- Printer
- Laptop
- LCD screen (17")
- Wall-mounted first aid kit
- Wall-mounted markerboard with tack rail and chalk tray (min 6 l.f. x 4' high)

Mechanical

- Independent temperature zone control
- Design system to achieve NC-40 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Dedicated quad receptacle below counter
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Duplex LAN connection adjacent to each quad receptacle below counter

Plumbing

- None.

Large Conference Room

Example Space: HTMNC
Space Purpose: Conference room for 20 persons, video conference with at least 4 other remote sites.
Adjacency: Accessible to primary circulation paths.

ASF: 450 asf
Occupancy: 20 staff
Utilization Rate: 20%

Built-in Cabinetry

- Base cabinet with locks (min 6 l.f. of 24" deep)

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board
- Windows to circulation path(s).

Furniture and Furnishings

- Side arm chair with casters for specified flooring (20 chairs)
- Oval-shaped conference table to seat 20, with media and power connections in 4 areas of top
- Wastebasket, blue 7-gallon for recyclables, and black 7-gallon for non-recyclables

Equipment

- Manual roller shades at exterior windows
- Electrically-operated roll-down projection screen (min 96" diagonal with 16:9 aspect ratio)
- Wall-mounted ultra-short-throw LCD projector
- Video Conferencing camera, speakers, and speaker phone
- Wall-mounted low-gloss markerboard surface with tack rail and chalk tray (min 9 l.f. x 4' high)
- Wall-mounted tackable surface near entry (min 4 l.f. x 4' high)
- Ceiling-mounted monaural speakers

Mechanical

- Independent temperature zone control
- Design system to achieve NC-40 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Receptacle above countertop
- Receptacle in ceiling for LCD projector
- Flush floor-mounted quad power receptacle beneath table
- General purpose receptacles spaced at max 8' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room

Systems

- Conference table-mounted duplex LAN, video, and audio connection

Plumbing

- None.

CMO Office

Example Space: HTHNC
Space Purpose: Office for volunteers, interns, and/or part-time staff
Adjacency: None.
ASF: 120 asf

Occupancy: 1 staff
Utilization Rate: 100%

Built-in Cabinetry

- Shelves for books and other materials (min 18 l.f. of 12" deep)
- Countertop with grommets for cabling (min 8 l.f. of 24" deep)

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board

Furniture and Furnishings

- Lockable Box-Box-File undercounter pedestal
- Lockable undercounter lateral file
- Task arm chair with casters for specified flooring
- Wastebasket, blue 7-gallon for recyclables, and black 7-gallon for non-recyclables

Equipment

- Manual roller shades, at exterior windows
- Telephone with speakerphone
- Desktop computer

Mechanical

- Shared temperature zone control with similar adjacent spaces
- Design system to achieve NC-40 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Dedicated quad receptacle below counter
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Duplex LAN connection adjacent to each quad receptacle below counter

Plumbing

- None.

IT Office

Example Space: HTeNC
Space Purpose: Office for CMO staff, volunteers, and/or interns
Adjacency: None.
ASF: 200 asf

Occupancy: 1 staff
Utilization Rate: 100%

Built-in Cabinetry

- Shelves for books and other materials (min 18 l.f. of 12" deep)
- Locking, full-height storage cabinets (min 8 l.f. of 24" deep)
- Countertop with grommets for cabling (min 8 l.f. of 24" deep)

Finishes

- Floor: carpet
- Base: rubber base
- Ceiling: suspended acoustical tile (8'-0" min. height)
- Walls: may vary

Furniture, Furnishings, and Equipment

- Wall-mounted tackable surface above countertop (min 24" high)
- Manual roller shades at exterior windows (3% openness factor)
  - Lockable Box-Box-File undercounter pedestal
  - Lockable 30" undercounter lateral file
  - Task arm chair with casters for specified flooring
  - Wastebasket, blue 7-gallon for recyclables, and black 7-gallon for non-recyclables
  - Telephone with speakerphone
  - Desktop computer

Mechanical System

- Shared temperature zone control with similar adjacent spaces

Electrical and Data Systems

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Dedicated quad receptacles below counter (3 min.)
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.
  - Duplex data receptacle adjacent to each quad receptacle below counter

Plumbing

- None.

Inclusion Office

Example Space: HTMNC
Space Purpose: Office to meet with up to 4 students, or parents, in a small group setting.
Adjacency: Preferred adjacency to a conference room.
ASF: 200 asf

Occupancy: 1 staff and up to 3 students
Utilization Rate: 100%

Built-in Cabinetry

- Shelves for books and other materials (min 18 l.f. of 12" deep)
- Upper cabinet for books and other materials (min 6 l.f. of 15" deep)
- Countertop with grommets for cabling (min 8 l.f. of 24" deep)

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board
- Windows between office and circulation path(s).

Furniture and Furnishings

- Lockable Box-Box-File undercounter pedestal
- Lockable undercounter lateral file (1)
- Task arm chair with casters for specified flooring
- Side arm chair with casters for specified flooring (3)
- Wastebasket, blue 7-gallon for recyclables, and black 7-gallon for non-recyclables
- Stackable letter-size plastic file trays for (6) laptop storage

Equipment

- Manual roller shades, at exterior windows
- Manual mini-horizontal shades, at interior windows
- Telephone with speakerphone
- Laptop (6)
- Printer
- Wall-mounted markerboard surface with tack rail and chalk tray (min 6 l.f. x 4' high)

Mechanical

- Shared temperature zone control with similar adjacent spaces
- Design system to achieve NC-40 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Dedicated quad receptacle below counter and at tables
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room

Systems

- Duplex LAN connection adjacent to each quad receptacle below counter

Plumbing

- None.

Speech Pathologist/Occupational Therapist/Social Worker

Example Space: HTHNC
Space Purpose: Office for one person, shared by three
Adjacency: Accessible to primary circulation paths
ASF: 150 asf

Occupancy: 1 staff (shared) and 2 students
Utilization Rate: 100%

Built-in Cabinetry

- Shelves for books and other materials (min 12 l.f. of 12" deep)
- Upper cabinet for books and other materials (min 6 l.f. of 15" deep)
- Countertop with grommets for cabling (min 10 l.f. of 24" deep)

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board (min STC 43 partitions)
- Windows between office and circulation path(s).

Furniture and Furnishings

- Lockable Box-Box-File undercounter pedestal
- Lockable undercounter lateral file (2)
- Task arm chair with casters for specified flooring
- Upholstered side arm chair (2)
- Occasional table (9 sf min.)
- Wastebasket, blue 7-gallon for recyclables, and black 7-gallon for non-recyclables

Equipment

- Manual roller shades, at exterior windows
- Telephone
- Laptop
- LCD screen (17")
- Wall-mounted markerboard with tack rail and chalk tray (min 3' x 4' high)

Mechanical

- Independent temperature zone control
- Design system to achieve NC-40 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Dedicated quad receptacle below counter
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Duplex LAN connection adjacent to each quad receptacle below counter

Plumbing

- None.

Support Area

Example Space: HTMNC
Space Purpose: Storage of supplies, student records, mail distribution, and small workspace for copying, printing, warming a meal, and speaking with colleagues.
Adjacency: Preferred adjacency to Executive Assistant and easily accessible to major circulation route.

ASF: 330 asf
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry

- Upper cabinets for supplies and equipment (min 10 l.f. of 15" deep)
- Mail slots, min. 40 total (12"w x 4"h x 15"d)
- Lockable base cabinet for supplies (min 6 l.f. of 30" deep)
- Lockable wardrobe cabinets for large supplies (min 9 l.f. of 24" deep)
- Center work island with copy paper storage and lateral files below (min. 8'x3')

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board

Furniture and Furnishings

- Lockable 2-drawer lateral file (6 units)
- Wastebasket, blue 16-gallon for recyclables, and black 16-gallon for non-recyclables

Equipment

- Tackable surface bulletin board near entry (min 15 sf)
- Occupational Signage Display
- Photocopier with stapling, duplexing, scanning, and email functions
- Table-top Hot Laminating Machine on cart (25" roll)
- Administrative Supply Kit (Heavy Duty stapler, 24" paper cutter, etc.)
- Side-by-side refrigerator with in-door ice maker and water dispenser (20 cf min.)
- Microwave oven, 1200 watts (2)

Mechanical

- Shared temperature zone control with similar adjacent spaces
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Dedicated receptacle for refrigerator
- Dedicated receptacle for photocopier
- Dedicated receptacle for microwaves
- Occupancy sensor
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Duplex LAN connection adjacent to each general purpose receptacle

Plumbing

- Single-basin, 6" deep, stainless steel bar sink with hot and cold water
- Deck-mounted filtered water dispenser
- Reverse osmosis water filtration system with valve to refrigerator

Seminar Room

Example Space: HTMNC
Space Purpose: Standard classroom for project-based, team-taught, liberal arts instruction, weighted towards soft-sciences. Serves 6, 7th and 8th grade general humanities
Adjacency: Mandatory adjacency to teamed Seminar room and Studio. Preferred adjacency to teacher workstations.

ASF: 800 asf
Occupancy: 27 students and 1 instructor
Utilization Rate: 80%

Built-in Cabinetry

- Shelves for books and other class materials (min 12 l.f. of 12" deep)
- Teaching Wall cabinet with (2) sliding low-gloss markerboard doors, integrated laptop recharging area for 20 laptops, lockable base cabinet with adjustable shelves, adjustable shelves behind sliding markerboard doors and cabinet-mounted ultra-short throw lens projector. (min 12 l.f. of 18" deep)

Finishes

- Floor: washable surface (polished concrete)
- Base: rubber base (min 4" high)
- Ceiling: 2x2 tegular suspended ceiling tiles or open to roof with exposed structural system when possible (min NRC .7, 10'-0" min. preferred height).
- Walls: painted gypsum board with backsplash behind sink to a minimum of 4' a.f.f.
- Operable partition between this seminar room and its team seminar room, min. 12' wide x 7' high with min STC-43 rating, 4' high x full width markerboard, and tackable surfaces above and near markerboard
- Windows between Seminar room and Teacher Office, and between Seminar room and Studio.

Furniture and Furnishings

- Student nesting, flip-top, chem-surf finish mobile tables (14 tables at 24"x60")
- Stackable Z-base chairs with glides designed for specified flooring (27)
- Blue 16-gallon wastebasket for recyclables, and black 16-gallon wastebasket for non-recyclables

Equipment

- A/V system with interactive projector, ceiling-mounted speakers, and controls near teaching wall
- Bulletin board near entry (min 15 sf)
- Manual roller shades, at exterior windows only. None at interior windows.
- Laptops and extra A/C adapters to be stored and charged in teaching wall cabinet (13)
- Power distribution unit in teaching wall cabinet, 20 ports (3)

Mechanical

- Independent temperature zone control
- Design system to achieve NC-35 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent lighting with switching for multiple light levels
- Occupancy sensor and daylight sensor with over-ride in-room near other lighting switches
- Dedicated quad receptacle at A/V patch panel
- Dedicated flush-mounted floor quad power/dual data receptacle in center of room.
- Power receptacle and A/V poke-through above teaching wall cabinet for LCD projector
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Ceiling-mounted wireless LAN access point, centered on ceiling
- Duplex LAN connection adjacent to each general purpose receptacle, at max 12' o.c. around perimeter walls

- Wall-mounted A/V patch panel above project prep countertop with duplex LAN, video for LCD projector, volume and projector controls, and 2-channel speaker connections.

Plumbing

- Single compartment stainless steel sink with hot and cold water.

Exploratory

Example Space: HTMNC
Space Purpose: Specialty classroom
Adjacency: Mandatory adjacency to Outdoors.

ASF: 960 asf
Occupancy: 27 students and 1 instructor
Utilization Rate: 80%

Built-in Cabinetry

- Adjustable height wire shelves for class materials (min 60 l.f. of 12" deep)
- Teaching Wall cabinet with (2) sliding low-gloss markerboard doors, integrated laptop recharging area for 20 laptops, lockable base cabinet with adjustable shelves, adjustable shelves behind sliding markerboard doors and cabinet-mounted ultra-short throw lens projector. (min 12 l.f. of 18" deep)
- Plastic laminate countertop for teacher prep area (min 6 l.f. of 24" deep)

Finishes

- Floor: washable surface (polished concrete)
- Base: rubber base (min 4" high)
- Ceiling: 2x2 tegular suspended ceiling tiles or open to roof with exposed structural system when possible, with black finish (min NRC .7, 10'-0" min. preferred height).
- Walls: painted gypsum board with backsplash behind sink to a minimum of 4' a.f.f., black
- Windows to adjacent circulation spaces

Furniture and Furnishings

- Butcher block-top fixed leg workbenches, 36"x60" (9)
- 18" padded metal stools with no backs (27)
- Lockable Box-Box-File undercounter pedestal
- Lockable undercounter lateral file (1)
- Task arm chair with casters for specified flooring
- Task arm chair with casters for specified flooring
- Blue 16-gallon wastebasket for recyclables, and black 16-gallon wastebasket for non-recyclables

Equipment

- A/V system with interactive projector, ceiling-mounted speakers, and controls near teaching wall
- Bulletin board near entry (min 15 sf)
- Manual roller shades, at exterior windows only. None at interior windows.
- Laptops and extra A/C adapters to be stored and charged in teaching wall cabinet (13)
- Power distribution unit in teaching wall cabinet, 20 ports (3)

Mechanical

- Independent temperature zone control
- Design system to achieve NC-35 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent lighting with switching for multiple light levels
- Occupancy sensor and daylight sensor with over-ride in-room near other lighting switches
- Dedicated quad receptacle at A/V patch panel
- Dedicated flush-mounted floor quad power/dual data receptacle in center of room.
- Power receptacle and A/V poke-through above teaching wall cabinet for LCD projector
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Ceiling-mounted wireless LAN access point, centered on ceiling
- Duplex LAN connection adjacent to each general purpose receptacle, at max 12' o.c. around perimeter walls

- Wall-mounted A/V patch panel above project prep countertop with duplex LAN, video for LCD projector, volume and projector controls, and speaker connections.

Plumbing

- Double basin utility sink with hot and cold water, dual faucets, and solids interceptor trap on drain.

Teacher Prep Area

Example Space: HTMNC
Space Purpose: Teacher prep area for two persons, for prep work and small meetings.
Adjacency: Mandatory adjacency to their seminar rooms with a preferred entrance directly to classroom(s).

ASF: 140 asf
Occupancy: 2 teachers in a shared office
Utilization Rate: 20%

Built-in Cabinetry

- Countertop with grommets for cabling (min 12 l.f. of 24" deep)
- Bookshelves for books and other class materials (3' tall x 12' wide x 12" deep)
- Shelving above countertop (min. of 8 l.f. of 12" deep)

Finishes

- Floor: carpet
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board
- Windows between classroom and teacher workstation

Furniture and Furnishings

- Lockable Box-Box-File undercounter pedestal (2)
- Bookshelves for books and other class materials (3' tall x 14' wide x 12" deep) (2)
- Task arm chair with casters for specified flooring (2)
- Blue 7-gallon wastebasket for recyclables, and black 7-gallon wastebasket for non-recyclables

Equipment

- Tackable surface bulletin board below shelving (min 8 sf)
- Markerboard, 4'x4'
- Telephone (2)
- Laptop (2)

Mechanical

- Shared temperature zone control with similar adjacent spaces
- Design system to achieve NC-40 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Dedicated quad receptacle below counter
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Duplex LAN connection adjacent to each quad receptacle below counter

Plumbing

- None.

Studio

Example Space: HTMNC
Space Purpose: Circulation and break-out area between clusters of classrooms. Serves an individual grade level. May act as a transition space between indoors and outdoors.
Adjacency: Mandatory adjacency to the grade level's seminar rooms and teacher workstations.

ASF: 600 asf
Occupancy: 0
Utilization Rate: 50%

Built-in Cabinetry

- Plastic laminate printer countertop with integrated seat bench (10 l.f. of 24" deep)
- Plastic laminate workbench countertop with integrated seat bench (10 l.f. of 24" deep)

Finishes

- Floor: washable surface (polished concrete)
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board
- Windows between classroom and teacher workstation, and between studio and hallway

Furniture and Furnishings

- Stackable Z-base chairs with glides designed for specified flooring (8)
- Oval activity tables, 72"x42" (2)
- Blue 16-gallon wastebasket for recyclables, and black 16-gallon wastebasket for non-recyclables

Equipment

- Wall-mounted markerboard surface with tack rail (min 15 l.f. x 4' high)
- Bulletin boards, totaling a min 40 sf
- Black-and-white networked printer

Mechanical

- Shared temperature zone control with similar adjacent spaces
- Design system to achieve NC-40 noise levels
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent in-grid lighting
- Bi-level switching with occupancy sensor
- Dedicated quad receptacle below printer counter
- General purpose receptacles spaced at max 8' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room

Systems

- Duplex LAN connection adjacent to each receptacle in space

Plumbing

- None.

School Storage

Example Space: HTMNC
Space Purpose: Storage of seasonal school items, commons area chair dollies, and equipment.
Adjacency: Mandatory adjacency to Commons Area.

ASF: 80 asf
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry

- Wire shelving (80 l.f. of 16" deep)

Finishes

- Floor: washable surface (polished concrete)
- Base: rubber base (min 4" high)
- Ceiling: Open suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board (min STC 43 partitions)

Furniture and Furnishings

- Folding chair dollies (2 of 75 chair capacity)

Equipment

- None.

Mechanical

- Shared temperature zone control with similar adjacent spaces
- Integrated with central Building Management System

Electrical

- Direct fluorescent lighting
- Occupancy sensor
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- None.

Plumbing

- None.

Housekeeping

Example Space: HTMNC
Space Purpose: Storage closet for cleaning equipment and supplies.
Adjacency: None.

ASF: 80 asf (min. one per floor of building)
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry

- None.

Finishes

- Floor: washable surface (rubber, concrete, linoleum, etc.)
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: sanitary panel

Furniture and Furnishings

- Adjustable wire shelving (min. 40 l.f. of 16" deep)

Equipment

- Wall-mounted mop and rag rack
- Custodial Supply Kit (Flashlight, brooms, mops, vacuum, personal protective gear, signs, etc.)

Mechanical

- Independent exhaust.
- Integrated with central Building Management System

Electrical

- Direct fluorescent lighting
- Occupancy sensor
- General purpose receptacles spaced at max 5' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room

Systems

- None.

Plumbing

- Floor sink (24x24 min.)
- Hot and cold water with hose bibb and vacuum breaker.

Facilities Service

Example: HTMNC
Space Purpose: Storage for facilities equipment and supplies.
Adjacency: None.

ASF: 200 asf
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry
- None.

Finishes
- Floor: washable surface (polished concrete)
- Base: rubber base (min 4" high)
- Ceiling: None.
- Walls: painted gypsum board (min STC 43 partitions)

Furniture and Furnishings
- Bulk shelving racks, 30"d x 96"w x 84" tall (min. 4)
- Butcher block fixed-height workbench (30x96)
- Flammable materials storage cabinet (approx 36"w x 60"h)

Equipment
- Facilities Kit (power tools, groundskeeping equipment, locksmith equipment, etc.)

Mechanical
- Independent exhaust.
- Integrated with central Building Management System

Electrical
- Indirect/direct fluorescent pendant lighting
- Occupancy sensor
- General purpose quad power receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems
- Duplex LAN connection

Plumbing
- None.

Information Technology (IT) Data Closet

Example Space: HTMNC
Space Purpose: Storage of essential communications, security, and data servers
Adjacency: Preferred adjacency to IT Workroom.

ASF: 60 asf
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry
- None.

Finishes
- Floor: polished concrete
- Base: rubber base (min 4" high)
- Ceiling: suspended acoustical tile (min NRC .7, 8'-0" min. preferred height)
- Walls: painted gypsum board

Furniture and Furnishings
- Full height and width ¾" plywood backer board on one wall, painted to match room

Equipment
- Four-post server rack open frames w/out sides (42 unit frames min., 1 total)
- Cable tray from rack to main trunk outside of room (min. 6 l.f.)
- Telephone punch down board and MPOE
- Security alarm panel
- Note: Fire alarm panel should not be in this room, it is located in Electrical Room

Mechanical
- Shared temperature zone control
- Integrated with central Building Management System

Electrical
- Indirect/direct fluorescent in-grid lighting
- Occupancy sensor
- General purpose receptacles spaced at max 12' o.c. around perimeter walls
- Dedicated floor-mounted quad receptacles for server rack (2 min.)
- Dedicated duplex receptacles evenly spaced 44" a.f.f. on backer board (4 min.)
- Emergency and exit lighting, as required. Align devices with other elements within room

Systems
- Duplex LAN connection adjacent to each backer board receptacle

Plumbing
- None.

Building Electrical Room

Example Space: HTeNC
Space Purpose: Equipment room for electrical transformers, meters, and lighting panels
Adjacency: None.

ASF: 100 asf
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry

- None.

Finishes

- Floor: polished concrete
- Base: rubber base (min 4" high)
- Ceiling: None.
- Walls: painted gypsum board with ¾" painted plywood sheathing full height and width of one wall

Furniture and Furnishings

- None.

Equipment

- Lighting panels.
- Fire Alarm panel
- Electrical meter
- Electrical transformers.

Mechanical

- Independent exhaust.
- Integrated with central Building Management System

Electrical

- Indirect/direct fluorescent pendant lighting
- Occupancy sensor
- General purpose duplex power receptacles spaced at max 12' o.c. around perimeter walls
- Emergency and exit lighting, as required. Align devices with other elements within room.

Systems

- Duplex LAN connection in room

Plumbing

- None.

Multi-Occupant Male Restroom

Example Space: HTMNC
Space Purpose: Restroom serving both staff and students.
Adjacency: None. Centrally locate within school.

ASF: Varies depending on number of fixtures. Generally 32 asf per plumbing fixture.
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry

- None. No countertops or other horizontal surfaces besides fixtures.

Finishes

- Floor: Epoxy with fine grit for slip resistivity
- Base: Epoxy coated integral concrete base a min of 4" high
- Ceiling: 2'x4' tegular ceiling tile in staggered grid (min. 0.7 NRC tile)
- Walls: ceramic tile and epoxy grout to 60" a.f.f. min., over concrete backer board on all wet walls
- Doors: preferable not to exist. If doors exist, swing out, with push/pull hardware
- Windows to exterior or skylights preferred.

Furniture and Furnishings

- Wire rod shelving full width above lavatories

Equipment

- Floor-mounted solid phenolic toilet partitions with heavy-duty hardware.
- Electric hand dryer (1 per 2 sinks)
- Stainless steel washroom accessories including:
    - Partition-mounted toilet tissue dispensers
    - Wall-mounted seat cover dispensers, above toilet
    - Partition-mounted robe hooks
    - Wall-mounted recessed waste basket near entry
    - Accessible grab bars, where required
    - Sensored, wall-mounted liquid soap dispensers
    - Single full-length mirror near room entry. No mirrors above lavatories.

Mechanical

- Independent exhaust.
- Integrated with central Building Management System

Electrical

- Recessed fluorescent lighting
- Occupancy sensor
- General purpose duplex power receptacle beneath lavatory
- Emergency and exit lighting, as required. Align devices with other elements within room.
- J-box for each electric hand dryer

Systems

- None.

Plumbing

- Low-flow, wall-mounted, water closets with sensored flush valve
- Vitreous china waterless urinals, substitute urinals for water closets to the max. allowed by Code
- Sensored and metered, low-flow, deck-mounted lavatory faucets
- Vitreous china wall-hung lavatories
- Floor drain(s) as required, with one directly below each hand dryer

Multi-Occupant Female Restroom

Example Space: HTMNC
Space Purpose: Restroom serving both staff and students.
Adjacency: None. Centrally locate within school.

ASF: Varies depending on number of fixtures. Generally 32 asf per plumbing fixture.
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry

- None. No countertops or other horizontal surfaces besides fixtures.

Finishes

- Floor: Epoxy with fine grit for slip resistivity
- Base: Epoxy coated integral concrete base a min of 4" high
- Ceiling: 2'x4' tegular ceiling tile in staggered grid (min. 0.7 NRC tile)
- Walls: ceramic tile and epoxy grout to 60" a.f.f. min., over concrete backer board on all wet walls
- Doors: preferable not to exist. If doors exist, swing out, with push/pull hardware
- Windows to exterior or skylights preferred.

Furniture and Furnishings

- Wire rod shelving full width above lavatories

Equipment

- Floor-mounted solid phenolic toilet partitions with heavy-duty hardware.
- Electric hand dryer (1 per 2 sinks)
- Stainless steel washroom accessories including:
    - Partition-mounted toilet tissue dispensers
    - Partition-mounted feminine napkin disposal
    - Wall-mounted seat cover dispensers, above toilet
    - Partition-mounted robe hooks
    - Wall-mounted recessed waste basket near entry
    - Accessible grab bars, where required
    - Sensored, wall-mounted liquid soap dispensers
    - Single full-length mirror near room entry. No mirrors above lavatories.

Mechanical

- Independent exhaust.
- Integrated with central Building Management System

Electrical

- Recessed fluorescent lighting
- Occupancy sensor
- General purpose duplex power receptacle beneath lavatory
- Emergency and exit lighting, as required. Align devices with other elements within room.
- J-box for each electric hand dryer

Systems

- None.

Plumbing

- Low-flow, wall-mounted, water closets with dual-flush valve
- Sensored and metered, low-flow, deck-mounted lavatory faucets
- Vitreous china wall-hung lavatories
- Floor drain(s) as required, with one directly below each hand dryer

Single Occupant Restroom

Example Space: HTMNC
Space Purpose: Private restroom and shower for staff and students
Adjacency: Preferred adjacency to major circulation route and Support Area.

ASF: 80 asf
Occupancy: 0 staff
Utilization Rate: 100%

Built-in Cabinetry

- None.

Finishes

- Floor: Epoxy with fine grit for slip resistivity
- Base: Epoxy coated integral concrete base a min of 4" high
- Ceiling: painted gypsum board.
- Walls: ceramic tile and epoxy grout to 60" a.f.f. min., over concrete backer board on all wet walls
- Doors: Lock shall have privacy indicator mechanism.

Furniture and Furnishings

- Cubbies for storing personal items with integral robe hooks (min. 12 of 12"x12"x12" min.)
- Bench or chair to seat one person while changing.

Equipment

- Wall-mounted folding shower bench seat in shower (24x15)
- Stainless steel washroom accessories including:
    - Wall-mounted toilet tissue dispenser
    - Wall-mounted seat cover dispenser
    - Surface-mounted, hands-free paper towel dispenser
    - Wall-mounted soap dispenser
    - Wall-mounted recessed waste basket
    - Accessible grab bars, where required
    - Tempered glass mirror above lavatory
    - Wall-mounted feminine product disposal

Mechanical

- Independent exhaust.
- Integrated with central Building Management System

Electrical

- Recessed fluorescent lighting
- Occupancy sensor
- General purpose duplex power beside lavatory
- Emergency and exit lighting, as required. Align devices with other elements within room

Systems

- None.

Plumbing

- Low-flow, wall-mounted, water closet with sensored flush valve
- Vitreous china waterless urinal, if fixture is necessary per Code
- Sensored, low-flow, deck-mounted lavatory faucets
- Wall hung vitreous china lavatory
- Hose bibb with quick-disconnect below lavatory in recessed box with lockable cover
- Floor drain(s) as required
- Shower system with adjustable low-flow spray unit