

State College Area School District



Progress Report on High School Educational Model and Educational Specification

October 2013 update

"No Student Left Unknown"

Table of Contents:

Part 1. Introduction

Part 2. Executive Summary of Educational Model

Part 3. Diagrams and Sample Floor Plans of Educational Model

Part 4. Development Process

Part 5. Educational Specification

Part 6. Comparison of Educational Specification to current High School

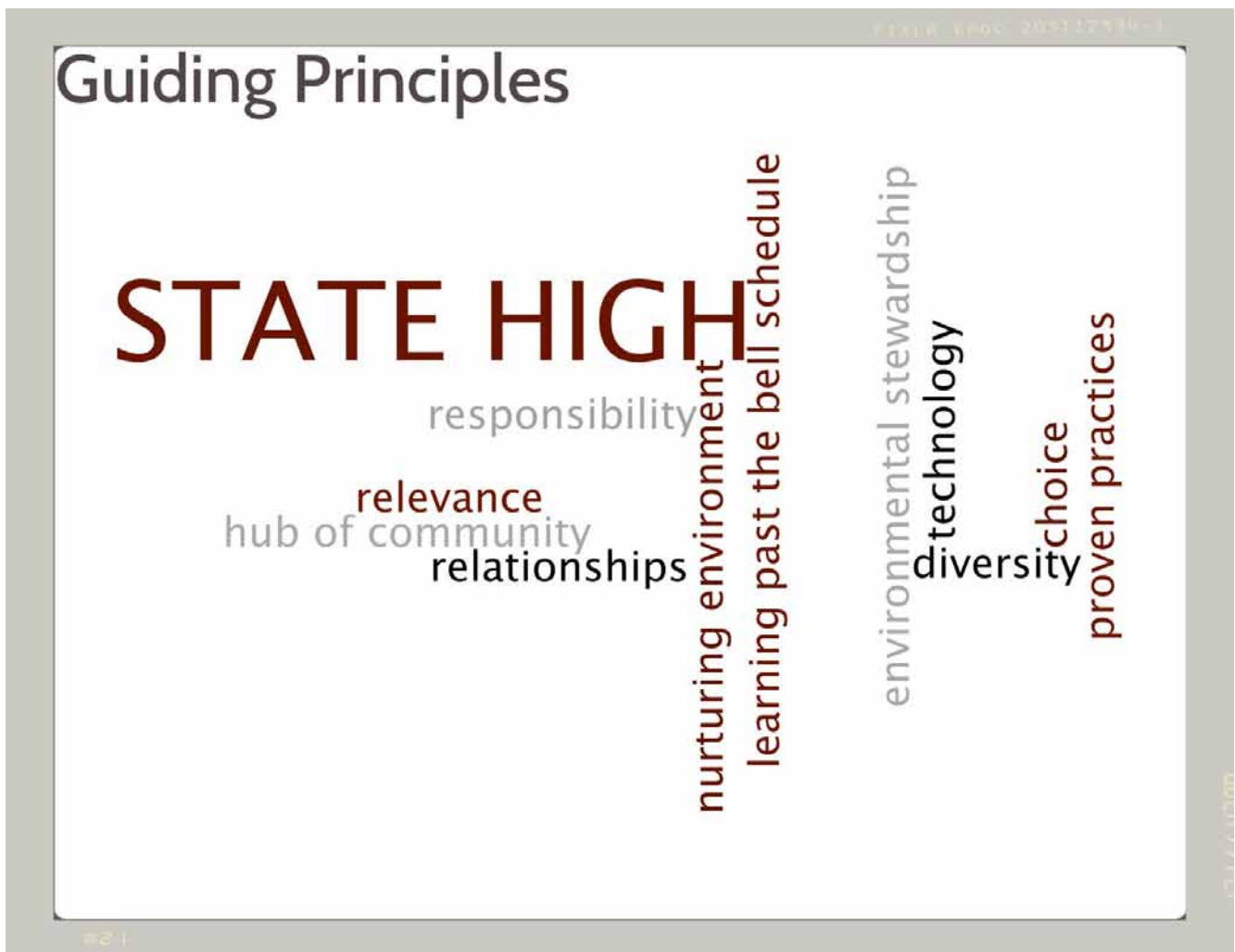
Appendix: Demographics supporting a 2400-student school

Part 1. Introduction

As part of the High School modernization effort, the State College Area School District employed the firm of Brainspaces, Inc., led by Amy Yurko, to update the High School Educational Model, which was first developed in 2009. The Educational Model and associated Educational Specification are used as tools in developing plans for a building project.

The Educational Model describes how the school will be organized and operated, while the Educational Specification details the number and size of each of the spaces in the planned building.

The first part of this undertaking was to develop a set of “Guiding Principles.”



Principle 1:

Relationships are a cornerstone of academic achievement.

Belief statement:

We believe that meaningful relationships, effective communication and collaboration among and between students, their families, and staff create high achievement, satisfaction and productivity. Positive teacher-student relationships draw students into the process of learning and promote their desire to learn. Each student should be connected to responsible, approachable and caring adult advocates. Student anonymity has no place in the high school.

References:

Example student comment:

•*“I would like more one to one where I can get to know my teachers better. Being friends with my teachers will help me be more comfortable in sharing my ideas.”*

References

- Breaking Ranks II: Executive Summary, Core Area 2*
- American Psychological Association: *Improving Students' Relationships with Teachers Provide Essential Supports for Learning*

Principle 2:

Relevance motivates students to pursue understanding.

Belief statement:

We believe that relevance is a key motivator, connecting students to understanding and knowledge. Curricular strategies that integrate theoretical, conceptual and practical knowledge from various fields of study provide real-world relevance. Student-centered learning allows for each student's skills, interests and abilities to be aligned with an individualized strategy for academic success.

References:

Example student comments:

- *"The goal of education is not making students get A+ in their tests, but to help them touch their dreams."*
- *"I think that we would be so much happier in school if we were doing what we love. We are a changing time period. We need to do something with our high school in order for us and our peers to make a difference. I want to love school, not hate it."*

References

- Partnership for 21st Century Skills: *P21 Framework, Learning & Innovation Skills*
- *Motivating Students to Learn, 3rd Edition* by Jere Brophy

Principle 3:

Diverse student interests and abilities must be celebrated.

Belief statement:

We believe that the educational environment should support the skills, interests and abilities of all students. In addition to core and elective programs, activities, clubs, athletics and the like offer multiple venues to develop and celebrate student individuality and creativity. The school should be a creative and enterprising expression celebrating the power of all styles of learning.

References:

Example student comments:

- *“I really feel like we need a school where we focus on everyone as individuals. Not as a student body. I am so sick of hearing about us as a group.”*
- *“Subjects like mathematics are often taught in a very uniform way and neglect to accommodate alternate learning styles. Rather than separating subjects by level you could separate them by learning styles such as visual, kinesthetic, etc.”*

References

- *Breaking Ranks II: Executive Summary*, Core Area 1
- *Extracurricular Design-Based Learning* by Dr. Liz Gerber

Principle 4:

Proven practices are embraced, and both rigor and innovation are expected.

Belief statement:

We believe that adaptability allows for growth and continuous improvement. All aspects of our educational system will empower adaptable, innovative, and future-oriented practices so that current and future graduating students will have the skills to thrive in a changing, multi-dimensional, global and technological society.

References:

Example student comments:

- *"The traditional education system is no longer as useful as it used to be. The world is changing but education hasn't. We need more engaging lessons, new ways to learn and new ways to be tested on what we have learned. The school should create an environment that shows how much SCASD values education."*
- *"Learn from us so we can learn from you"*

References

- 2009 Ed Spec, Goals #1, #2, & #6
- Partnership for 21st Century Skills: *P21 Framework, Learning and Innovation Skills*

Principle 5:

Environmental stewardship promotes global citizenship.

Belief statement:

We believe in empowering children to view the world critically and to think and act independently, cooperatively and responsibly. We believe that a sustainable environment promotes global citizenship and awareness and connects students to their world.

References:

Example student comment:

•*"I want nature. Nature, nature and more nature. Green, earth-friendly energy."*

References

- Department for Children, Schools & Families, *Impact of Sustainable Schools*
- USGBC, *The Benefits of Sustainable Schools*
- SCASD Board Resolution on High Performance Schools and Sustainability

Principle 6:

Human, physical and financial responsibility fosters community support.

Belief statement:

We believe that resources should be used effectively and efficiently to ensure the community a measurable return on its investment and to cultivate and maintain a culture of trust and mutual support.

References:

Example student comment:

• *“Regardless of how much planning is completed, the project in question will never come to fruition without the support of the electorate.”*

References

- 2009 Ed Spec, Goal #5
- Jamie Vollmer, *Schools Cannot do it Alone*

Principle 7:

A safe, healthy and nurturing environment meets holistic needs of learners.

Belief statement:

We believe that student learning increases when the school climate is safe, healthy, supportive and trusting. Such an environment promotes innovation, inquiry and productive risk taking, indirectly reinforcing achievement because both students and educators want to work under such conditions without the distractions caused by fear, judgment, poor air quality, temperature swings and inadequate lighting.

References:

Example student comments:

- *"It's not the teacher's teaching; it's the environment we're learning in."*
- *"The school NEEDS NATURAL LIGHT. Having classes with no windows is cruel and prison-like."*
- *"I think that if the school were more open, and more importantly had more windows, it would improve the overall mood of the students."*

References

- 2009 Ed Spec, Goal #3
- *A Place to Learn: Lessons from Research on Learning Environments*

Principle 8:

Learning extends past the bell schedule and beyond school campus.

Belief statement:

We believe that school and community share in the responsibility for achieving student success. Relationships with outside organizations, institutions, individuals and the great outdoors support and strengthen educational programs. We believe in students as both teachers and mentors, and we have high expectations for a culture of collaboration.

References:

Example student comment:

•*"I feel as though many of the things I am learning are purely for a test or a grade rather than application to the real world."*

References

- 2009 Ed Spec, Goal #4
- Breaking Ranks II: Executive Summary, Core Area 1
- National League of Cities, *Stronger Schools, Stronger Cities*

Principle 9:

Technology is a powerful TOOL for teaching and learning.

Belief statement:

We believe that technology is one of many tools for teaching and learning. The use of technology is driven by the task and the student and should not be seen as a replacement for all other tools. As a tool, technology can empower a community where learning is available for everyone, at any time, and in any place.

References:

Example student comments:

- *"I love technology, and the basis of society is turning toward technology. This is why the foundation of our school should focus on technology and encourage it."*
- *"I am really good at school, and I use technology, but not excessively."*

References

- 2009 Ed Spec, Goal #6
- EDUCAUSE, *Authentic Learning for the 21st Century: An Overview*
- Getting Smart, *How Digital Learning Contributes to Deeper Learning*
- Daniel Pink, *A Whole New Mind*

Principle 10:

Choice is a foundation of student-centered learning.

Belief Statement

Student-centered learning allows for each student's skills, interests and abilities to be aligned with their individualized strategy for academic success. Providing students with choices increases student interest, engagement, and learning while helping to build 21st century skills such as critical thinking, self-regulation and adaptability.

References

Example student comments:

- *"Let people sign up for their classes and stop with all the placement."*
- *"My Physics class has helped me look at problems in different ways so I can solve them. If I don't understand the data when it is presented in one way, I am able to ask questions and change it using a method I can understand."*
- *"This school takes the creativity out of you with a lack of diverse options. Better technologies and a more entertaining school would help with the diversity. There is too much restriction with artistic flow."*
- *"I think that our school needs to open up their decision-making process to more students because essentially we are the ones that are going to this school for 8 hours a day. We should be able to feel comfortable and happy that we go to this school."*

Example teacher comment:

- *"It seems like we need to reverse things: our clubs and sports should be our curriculum and our subjects should support them. BUT... How can our interests lead us when we are SO ingrained in the "traditional" system? As teachers, we do all kinds of "new" ways to teach like differentiation and group work... And classroom management techniques, but we are still trying to teach all the same traditional concepts. Will we be allowed to break the mold? Will we be able to be led in our teaching not by the PA standards, but by interests and projects?"*

References

- 2009 Ed Spec, Goal #6
- Partnership for 21st Century Skills

Principle 11:

The school is a hub of community activity.

Belief Statement

Family and community engagement is a vital part of a truly successful school. The high school should be a source of community pride, open to wider use, and a mutually beneficial bridge to the local community.

References

Example student comments:

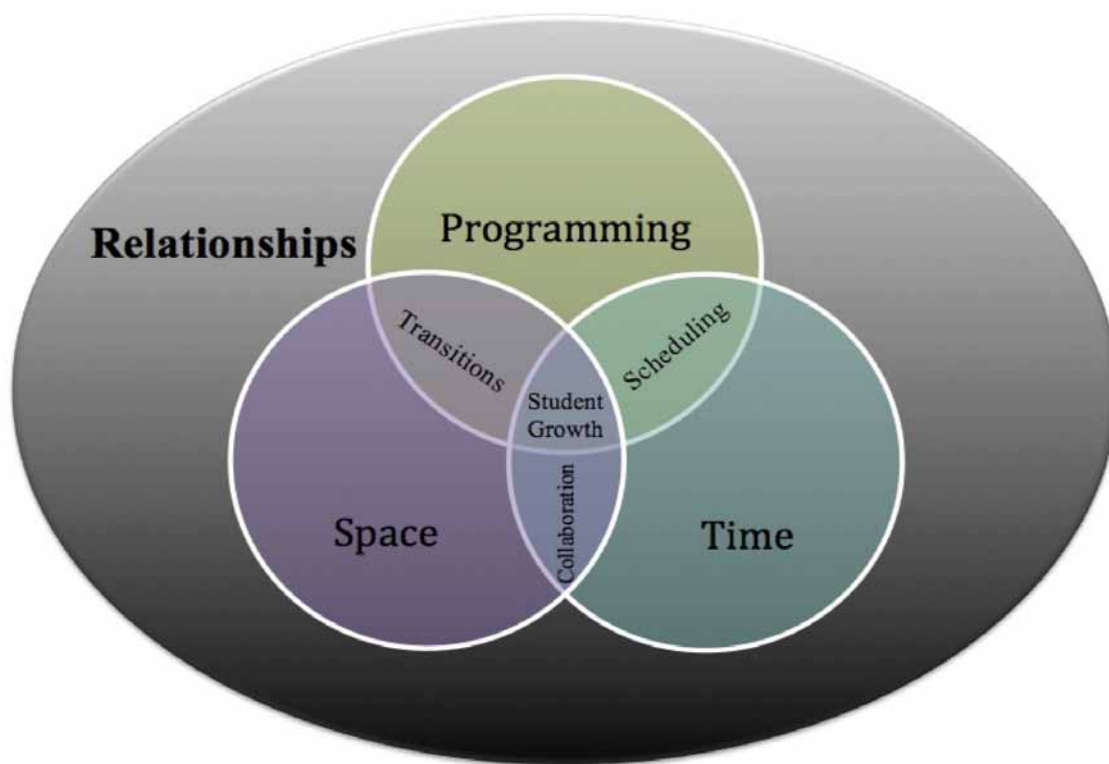
- *“I think that a new school would be beneficial for not only the education, but also for the image of State High. We have a great educational system but the facilities are not adequate.”*
- *“More space with a new flare. Community needs to be emphasized.”*

References

- 2009 Ed Spec, Goal #4
- Edutopia, *The Importance of Community Involvement in Schools*

Part 2. Executive Summary of the Educational Model:

Educational Planning- Big Ideas Diagram



The educational model planned for State College Area School District is based on Learning Communities. The Educational Specifications document identifies certain classrooms within each learning community as “Core Learning Classrooms” (e.g. English, Math, and Social Studies). The educational model is flexible as to how students are assigned to classrooms within the learning communities and how the “Core Learning Classrooms” are integrated into the learning communities.

This model is designed to create deeper relationships between teachers and their students through shared groupings and relevant learning experiences. While this shared grouping will enable groups of teachers to connect with smaller groups of students, it will also allow students the flexibility to tailor their learning experience through their selection of electives.

As part of this model, a specific ninth grade experience is envisioned. These students would be grouped in their own learning community but still be part of the High School Campus. The goal is to implement the ninth grade experience starting in the 2014-2015 school year, regardless of the status of any building project.

The learning communities (LC) for grades 10 to 12 are planned for implementation in the 2015-2016 school year. For initial planning purposes these learning communities have been identified as:

- Arts and Humanities
- Business and Communications
- Health and Human Services
- S.T.E.M. (Science, Technology, Engineering, and Math)
- Delta

The Freshman Experience:

As depicted in the Venn diagram on a previous page, relationships are a cornerstone of teaching, learning, and student experiences. Ninth grade students will be grouped with a “teacher team” representing the core subject areas. This will provide increased attention to individual student academic progress through collaboration time between teachers. It is important to note, however, that this experience will differ from the middle school team experience, as students will interact with other ninth graders and students at the high school during the school day.

The transition from middle school to high school will be addressed with the implementation of a seminar program for ninth graders. This program will use both online and classroom delivery methods to acclimate students to the procedures of the high school, share strategies for academic and social success, and provide mentoring opportunities between ninth graders and older students. This program will also help students plan deliberately for future high school academic experiences.

As core subject teachers will have collaboration time during the school day, more opportunities for project-based learning experiences will exist across the curriculum. Teachers will be able to identify students needing additional support and enrichment as well as recommend interventions with this model. Finally, the variety of choice in the high school curriculum will be maintained, as this is an aspect of the high school that is valued by our entire community.

A Day in the Life of a 9th Grader using this model:

A ninth grader's core subject classes (English, Math, Science, and Social Studies) will be with a team of teachers, although not necessarily with the same students. The student will have the opportunity to take elective courses with other ninth graders and high school students. A seminar program will emphasize a positive transition and will be delivered through both online and classroom instruction. Each ninth grader will have the opportunity to have informal interactions with core subject teachers more than once a day.

Sample 9th Grade Schedule

- 1st Period: Elective option
- 2nd Period: Physical Education/Health/Seminar Program
- 3rd Period: English*
- 4th Period: Math*
- 5th Period: Lunch
- 6th Period: Science*
- 7th Period: Social Studies*
- 8th Period: Elective option

* - with 4 person "teacher team"

A Day in the Life of a 9th Grade Teacher using this model

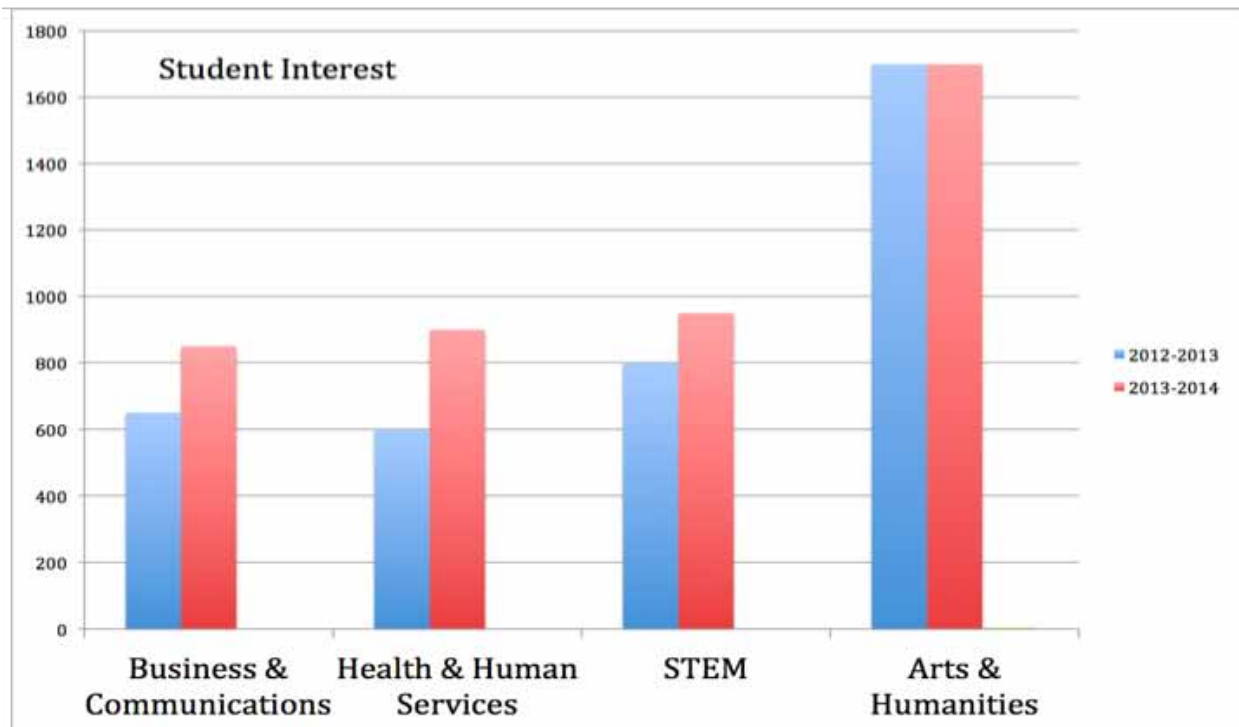
A key element of this educational change is collaboration time that will allow a teacher to plan learning experiences across curricular content areas. Research has shown that by providing experiences that occur in multiple content areas, deeper meaning and understanding can be accomplished. Furthermore, a teacher will have time to collaborate with other ninth grade teachers in the same content area. In addition to improved curricular connections, this collaboration time will allow a ninth grade teacher to effectively and efficiently plan enrichment and remedial learning activities for students on his/her team.

Beyond the 9th grade experience, specific learning communities are planned for grades 10-12.

Many smaller learning environments already exist in the high school - they are just not formalized. As with the ninth grade experience, the primary focus in learning communities will be on relationships with students, teachers, and the community. With theme-based learning communities, there will be increased attention to academic progress through relevance and the use of proven practices. Teachers will be associated with the learning communities as much as possible. Collaboration time for teachers in the daily schedule will foster additional opportunities for cross-curricular connections, project-based learning, and service learning. Students will continue to have full access to the options offered through the State College Area High School curriculum.

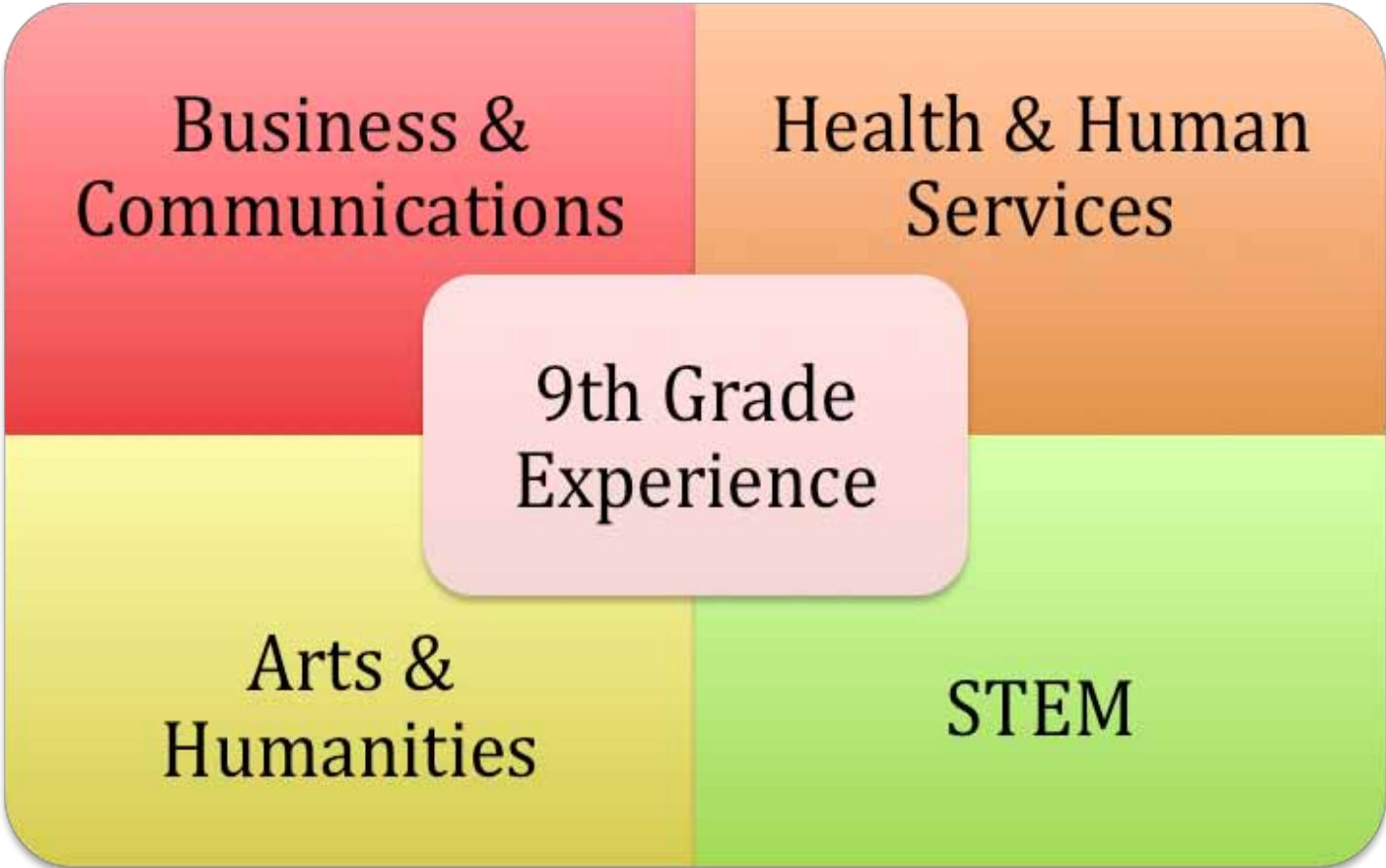
Learning Communities

To help identify which Learning Communities might be most advantageous as implementation of this model is considered, a study of student elective choices was graphed to gauge student interest areas. The graph shows both 2012-2013 school-year enrollment as well as 2013-2014 student requests.



Based on the analysis of this data and discussions within the High School educational model planning team, the aforementioned Learning Communities were suggested. These Communities are depicted on the graphic without the inclusion of the Delta community. The Delta Community has long maintained an identity independent of the High School; however, many of the students elect to participate in certain High School class selections. The Learning Community model fits well into this approach. The final High School design should include some way of maintaining Delta proximity to the rest of the High School while allowing some separation and ability to foster the independence that this community has enjoyed since its inception.

Proposed Learning Communities for High School Planning:



A Day in the Life of an Upperclassman using this model:

A student will be placed in theme-based learning communities based upon the selection of his/her elective courses. In the case when several electives have been chosen, a student will be permitted to select his/her learning community. Core classes (English, Math, Science, and Social Studies) will be taught by teachers associated with the learning community. Special learning opportunities such as guest speakers, field trips, and post-secondary school visits will also be associated with the learning community. Increased attention to relationships and opportunities within the local community will result in learning opportunities beyond the walls of the high school. Furthermore, common spaces and time in the bell schedule will allow for student and staff interaction during non-instructional times. Such opportunities will be similar to the current opportunities for students in learning enrichment: a common place to meet with students having common interests with staff members who know them as learners and people.

Sample Learning Community Student Schedule

1st Period: Learning Community Elective(s)

2nd Period: Elective

3rd Period: English*

4th Period: Math*

5th Period: Lunch

6th Period: Science*

7th Period: Social Studies*

8th Period: Elective

* - Learning Community "teacher team"

A Day in the Life of a Learning Community Teacher using this model:

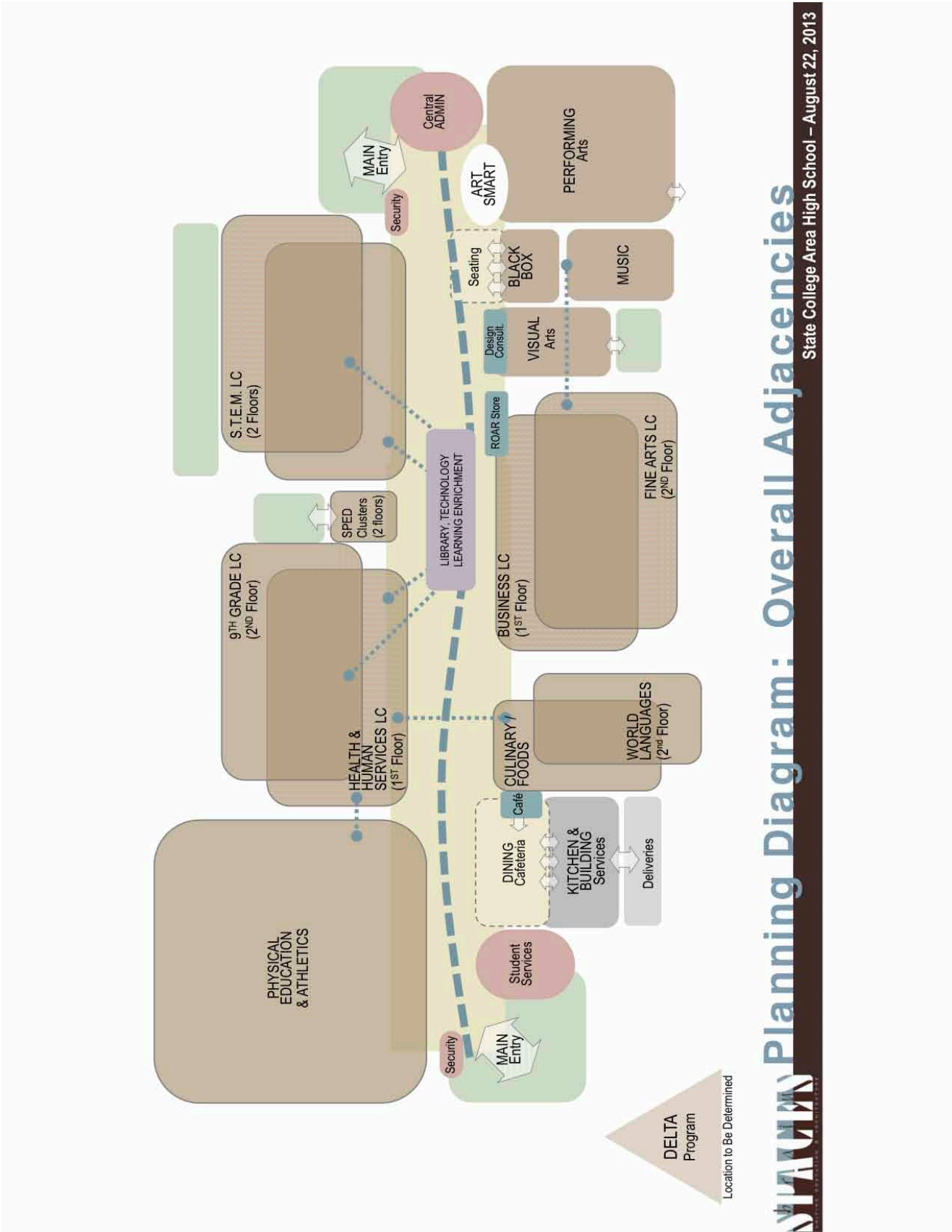
A key element of this educational change is collaboration time for each teacher within each learning community and for learning community department colleagues. In addition to improved curricular connections, this collaboration time will allow a teacher to effectively and efficiently plan enrichment and remedial learning activities for students in his/her learning community. Such a structure of teachers, specialists, counselors, and support staff to assist students with their learning and school experiences results in what we refer to as “No student left unknown.”

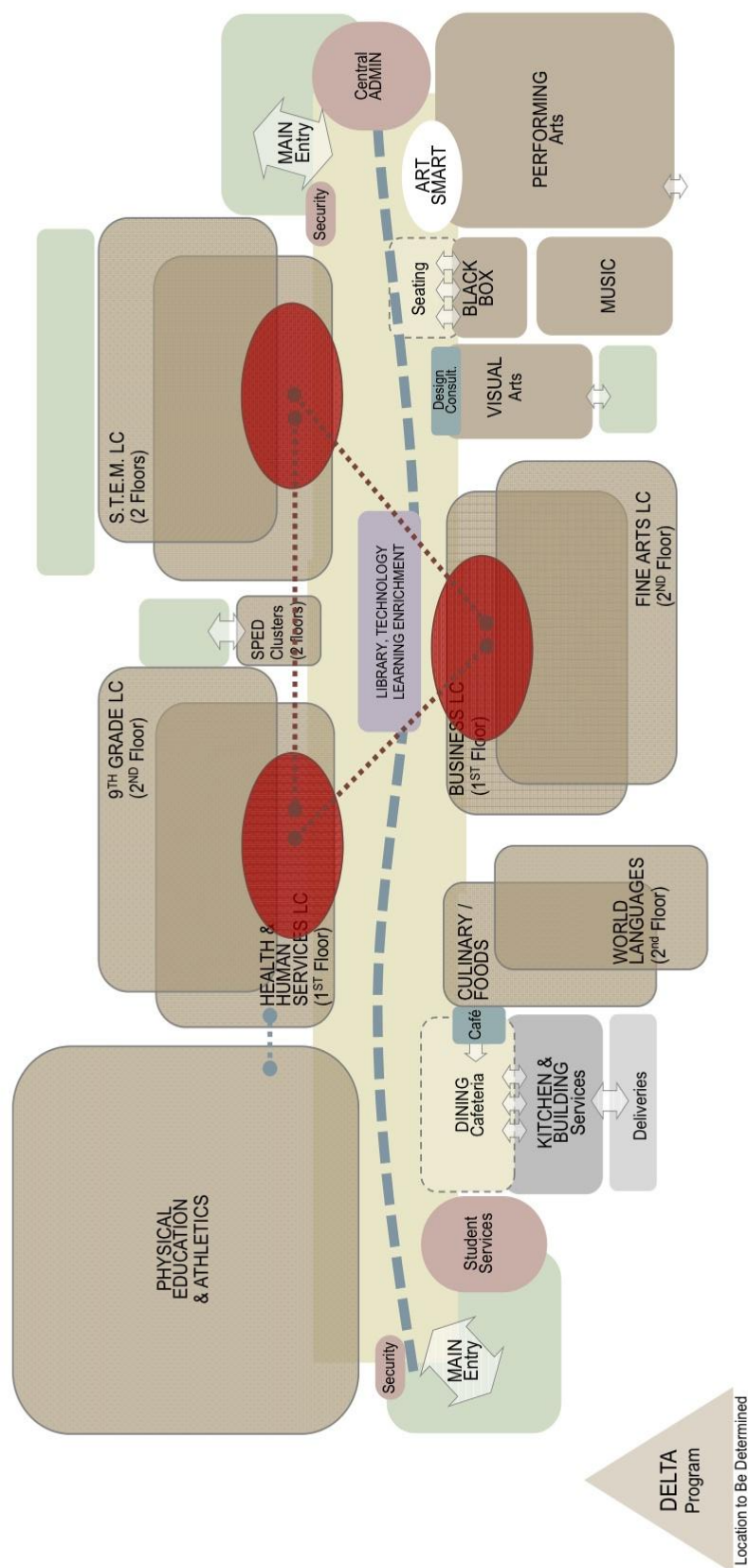
Conclusion

Based on the inclusive process led by Brainspaces, Inc., the State College Area High School Community (students, parents, faculty, staff, and community members) has developed an educational model and associated educational specification that is built around learning communities. This model maximizes contacts and relationships, while maintaining flexibility for a changing educational program and evolving educational delivery methods.

3) Planning Diagrams:

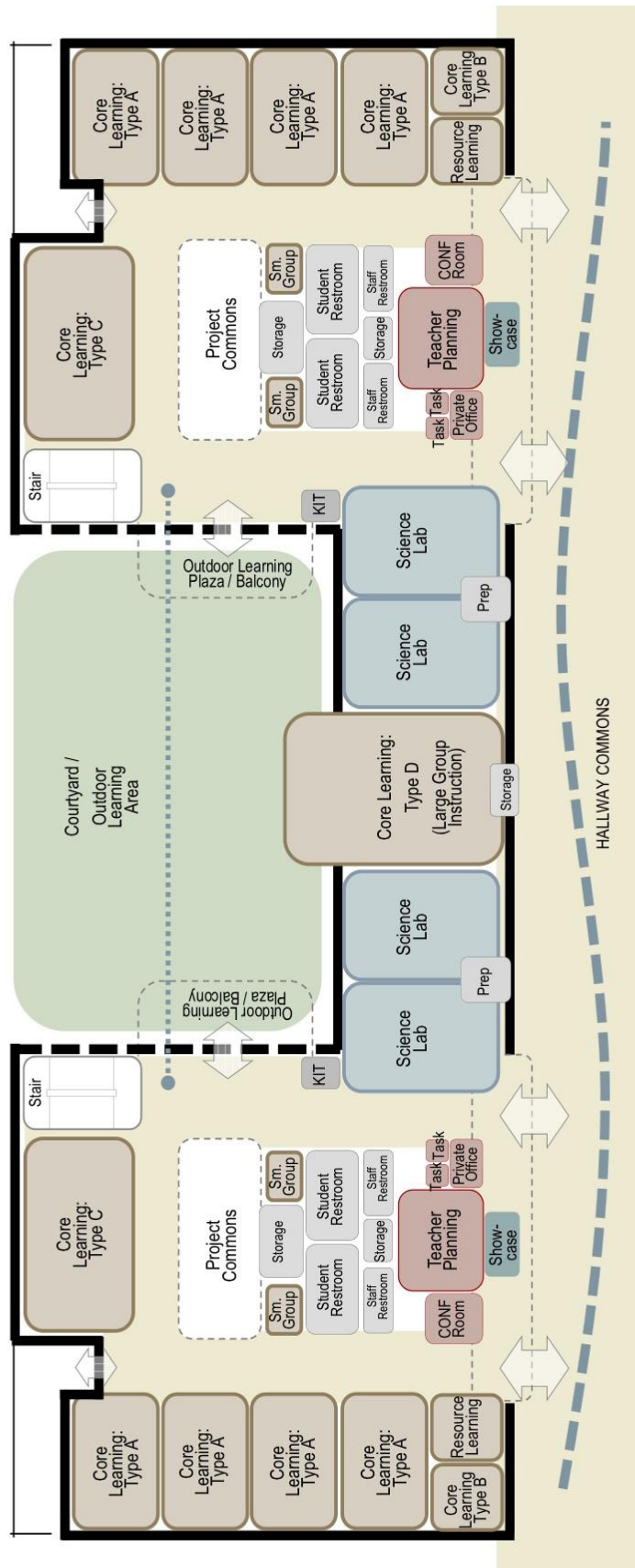
The following diagrams are conceptual images of a hypothetical floor plan that would support the aforementioned model.



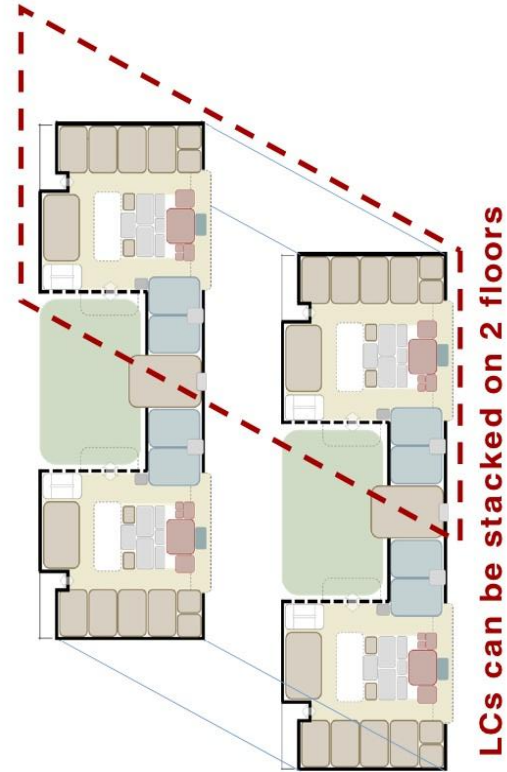
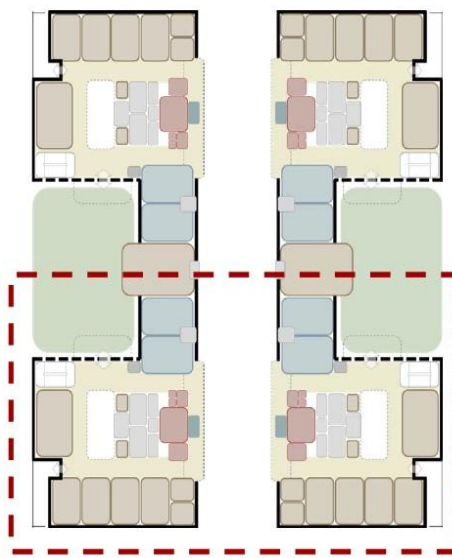
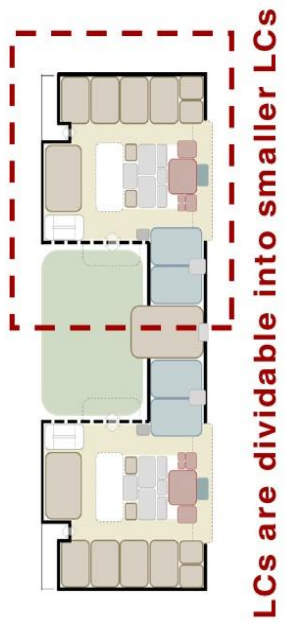
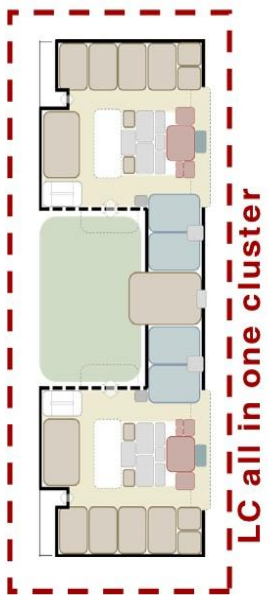


Planning Diagram: Location of Science Labs

State College Area High School – August 22, 2013



STACEN Planning Diagram: One Learning Community



LCs can bridge across a hallway

LCs can be stacked on 2 floors

Part 4. The Development Process:

An inclusive and broad process was used in the development of the educational model and educational specification. The process included students, staff, and community members in various capacities. A summary of the process is included.

Educational Model Planning Team:

Following engagement with high school students, staff members, and the school community to identify shared understandings, an educational model planning team was formed. This team was comprised of students, teachers, PTSO representation, and building administrators. The team conducted five school visits in order to observe potential educational elements and measure how these elements might meet the needs of State College Area High School. Schools were selected based on similar size and demographics.

Team Recommendations:

As earlier described, the educational model planning team recommended implementing a specific ninth grade experience starting with the 2014-2015 school year. Additionally, they recommended theme-based learning communities for students in grades ten to twelve beginning with the 2015-2016 school year.

Analysis

Over the summer of 2013, the planning team continued to analyze model elements to meet the needs of State College Area High School. Additionally, the team reviewed student interests and choices to determine how this information could inform learning community options. Team members also met with a parent focus group and an alumni focus group in order to get feedback on the educational model.

Summary of work done in collaboration with Brainspaces:

Date	Action	Outcome
July 12, 2012	RFP Process Review Proposals /Selection	Determine finalist for interviews
August 2012	Conduct interviews/ involve school board of directors, faculty and staff	Recommendation for the school board
September 2012	School Board of Directors vote	Amy Yurko / BrainSpaces is selected to guide the development of the Ed Model and update the Ed Specs
November 12 & 13, 2012	BrainSpaces walk- through with students, Student Government, Faculty, Staff and Building Admin.	Provided general assessment of the building and foundational knowledge
December 17 & 18, 2012	BrainSpaces visit: -video (school wide) -work with students & staff -feedback form -community drop-in	Collected information and feedback to start the visioning process
January 15, 2013	BrainSpaces /Admin. Conference call	Prepare for next visit
January 15, 2013	Work with BLT, CRA & Board of Directors- Conf. Call	Prep for next visit

Date	Action	Outcome
January 22, 2013	BrainSpaces visit: -meets with student council -also meets with a cross-section of the student body -Address faculty at faculty meeting	Gathered feedback to refine initial draft of the Guiding Principles
January 23 & 24, 2013	BrainSpaces Visit: -Teacher focus groups -Staff focus groups -Drop-ins -Community Tours -Community Forum	Dialogue with faculty, staff, students, and community to provide an overview of the visioning process
February 20, 2013	Redistribute 2009 Ed Specs to faculty and staff	To ensure an equal understanding of prior 2009 Ed Specs
February 25, 2013	Share 2nd Draft of Guiding Principles	Make the connection between GP and educational environments
February 27, 2013	Review sample Educational visioning bubble diagrams with BLT	Share thinking and clarify process
February 28, 2013	Facilitate teacher focus groups	Verification of space needs and adjacencies
February 28, 2013	Facilitate student focus groups	Reviewed work to date, including GP, addressed student concerns and recorded ideas

Date	Action	Outcome
February 28, 2013	Community Forum	-Share update to Ed Planning Process... - Students report out -Share calendar updates, options and cost estimates -Listen to community members' questions /thinking
March 1, 2013	Teacher focus group	Continue verification of space needs, conversations about adjacencies
March 1, 2013		Homework: review and adjust Ed Specs for your focus area
March 5, 2013	Compare current needs to 2009 Ed Specs	Apply information to adjust and update current Ed Specs
April 2013	Series of conference calls with CRA, BRI, and SCASD admin	Refinement of Ed Specs: -Bubble diagrams -Master schedule analysis -Facility space program
June & July 2013	Bi-Weekly meetings with Educational Model Planning Team	Adjust Ed Specs based on learning community model
August 6, 2013	Meeting with curriculum coordinators, CRA,BSI (teleconference) and Admin. to review Ed Specs	Gather feedback and make initial changes
August 2013	Continue work with coordinators, Faculty, CRA and BSI	BSI makes adjustments to Ed Specs as appropriate

Date	Action	Outcome
August 26, 2013	Amy Yurko of BrainSpaces Presents Board of School Directors	BSI makes adjustments to Ed Specs as appropriate

Part 5. Educational Specification (Ed Spec)

Along with the Educational Model, an Educational Specification has been developed. This document details the space requirements for a new building housing 2,400 students based on the above educational model. The first part of this Ed Spec is a description of the specifications, which is followed by a summary spreadsheet, and the specification concludes with a detailed compilation of each program area in the building.

Space Requirements

Quantitative Parameters

The following parameters affect the types, sizes and quantities of spaces to include in the high school:

A) School Capacity

The school is planned for an on-site capacity of 2,400 students.

B) Grade Configuration

The grades to be included in the high school are 9th through 12th grades.

C) Average Class Sizes

For planning purposes, the high school will be planned for average class sizes as shown below. This may mean that some classes (possibly music, PE, etc.) may be scheduled with more students in a section and some classes (possibly upper level languages, CTE, etc.) may be scheduled with fewer students in a section. The planning averages are in no way intended to limit curriculum, course offerings or scheduling.

Regular education = 20 students each

Special education = 5-10 students each

D) Average Classroom Sizes

For planning purposes, regular classrooms are sized (in terms of net square footage) for roughly 24-25 students each. This will allow for flexibility in scheduling and use of the spaces as well as flexibility in teaching styles, classroom activities and furniture arrangements.

E) Teaching Stations

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

1) Scheduled Teaching Stations

Scheduled teaching stations include learning environments regularly scheduled to support a class of students for core curriculum and elective courses. The term is often used interchangeably with “classrooms” but also includes science labs, art rooms, music rooms, physical education spaces, Career and Technical Ed labs, special education rooms, and the like – as long as they are consistently scheduled to support an average-sized class of students.

2) Auxiliary Teaching Spaces

Auxiliary Teaching Stations are spaces that support the educational activities outside of the regularly scheduled teaching stations. While each of these spaces can potentially support a teacher and a class of students, they do not add to the school’s enrollment capacity because they are used to supplement classroom activities and are often scheduled through a “check-out” system.

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

Examples of auxiliary teaching stations include:

- Theaters
- Libraries
- Shared CTC classrooms that support CTC and Tech Ed labs
- Greenhouses
- Computer labs
- Resource classrooms
- Large-group instruction areas
- The Roar Store and the like

For flexibility, auxiliary teaching stations can be used as scheduled teaching stations as needed over time. This may become necessary or desirable if/when additional courses are offered, average class sizes are reduced or student enrollment increases. Once an auxiliary teaching station is scheduled, it is considered a scheduled teaching station, thus adding student capacity to the school.

Quantities of regular and auxiliary stations planned for the high school.

Program Areas:	Regular	Auxiliary	Totals
Learning Communities	83	30	113
Specialty Programs	17	2	19
Visual/Performing Arts	7	3	10
Library/LE/Technology	4	6	10
PE & Athletics	11	1	12
DELTA Program	12	2	14
Totals	134	44	178

F) Student Work Areas

21st Century Learning includes student-directed study and activities. Spaces to support student work, both singly and in various-sized groupings, are planned throughout the high school. While these spaces may or may not include teacher-participation, they exist to support students in a variety of situations such as: in conjunction with scheduled coursework, outside of the provided teaching stations, in support of student-led explorations, peer-to-peer tutoring, applied learning, etc. These spaces support student learning, however they do not add to the school's capacity.

Student work areas provided in the high school include:

- Small Group Rooms
- Student Commons
- Open Project Areas
- Club Rooms
- Conference Rooms
- Showcase Spaces
- Ensemble & Practice Rooms
- Yearbook Room
- Media Café
- Dining Commons
- Outdoor Learning Areas

G) Staff Work Areas

Spaces to support teachers, both singly and in various-sized groupings, are planned throughout the high school. While these spaces may or may not include student participation, they exist to support teachers and staff in a variety of situations such as: teacher planning, preps that do not require classroom access, departmental meetings, interdisciplinary collaborations, private calls and meetings, parent-teacher conferences, in-services and training, tutoring, etc. These spaces are intended to support teachers, but some of the spaces may be used by both staff and students as needed.

Staff work areas provided in the high school include:

- Offices & Workrooms
- Teacher Planning Rooms
- Conference/Recording Rooms
- Task rooms & Small Group Rooms
- Staff Professional Library
- Open Project Areas
- Club Rooms
- Storage Rooms

Summary and Calculations

Net Area Summary

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

A summary of net areas is shown below and a detailed listing of spaces, with area requirements, is included on the attached spreadsheets.

Program Components	Net Area (sf)
9th Grade Community	28,840
Arts & Humanities Community	23,140
Business & Communications Community	28,140
Health & Human Services Community	33,260
S.T.E.M. Community	47,320
Specialty Programs	16,750
Visual & Performing Arts	29,300
Library, LE, Technology	16,600
PE, Health & Athletics	77,800
Administration & Student Services	9,650
Student Commons & Dining	24,400
Building Services	4,800
DELTA Program	14,000
Net Area Totals	350,000

Gross Area Summary

The total gross area of a building equals the net usable area plus space for hallways, stairways, elevators, walls, mechanical spaces, building services, toilet rooms, etc.

The actual gross building area is determined as the building design progresses to a level of detail that includes a schematic building layout on the site, and accounts for the spatial implications resulting from the selection and placement of mechanical systems, life-safety code requirements for occupant exiting, selection and engineering of building materials and structural systems, and requirements for toilet fixture counts and the like.

Typically, to estimate the gross area of a building prior to the determination of these items, a “grossing factor” is used to realistically estimate the gross square footage of a building. The total net usable building area is increased by this factor resulting in the overall total gross area estimate for the building for the purposes of budgeting, design and engineering.

For the purposes of preliminary planning and conceptual design, the grossing factor used for this project is 1.4, resulting in an estimated total gross building area of approximately 490,000 square feet (sf) for the total school facilities. (This number has been assigned without a specific concept in mind. Factors such as renovated spaces would increase this factor).

350,000 net sf x 1.4 = 490,000 gross sf estimate

The following Spreadsheets summarize the space requirements that have been described above.

State College Area High School

SUMMARY: FACILITY SPACE PROGRAM for 2,400 STUDENTS

UPDATED: 9/11/13

SPACE CATEGORY	Net Area Sub-Total (sq. ft.)	No. Teaching Stations	Capacity @ 93% Utilization	Student Capacity 100%	COMMENTS
<i>Spaces may change, depending on master planning strategy selected by the School Board.</i>					
1.0 9th GRADE LEARNING COMMUNITY			93%	20	
1.01 Core Learning & Support	13,800	10	187	200	
1.02 9th Grade Science	6,100	4	75	80	
1.03 Student Commons	2,700	0	0	0	
1.04 Staff Support	2,240	0	0	0	
Sub-Total:	24,840	14	261	280	
2.0 ARTS & HUMANITIES LC			93%	20	locate near Art, Music and Theater components
2.01 Core Learning & Support	12,100	9	168	180	
2.02 Science	6,100	4	75	80	
2.03 Student Commons	2,700	0	0	0	
2.04 Staff Support	2,240	0	0	0	
Sub-Total:	23,140	13	243	260	
3.0 BUSINESS & COMMUNICATONS LC			93%	20	
3.01 Core Learning & Support	12,100	9	168	180	
3.02 Science	6,100	4	75	80	
3.03 Business & Management	5,000	4	75	80	
3.04 Student Commons	2,700	0	0	0	
3.05 Staff Support	2,240	0	0	0	gross areas
Sub-Total:	28,140	17	318	340	
4.0 HEALTH & HUMAN SERVICES LC			93%	20	locate near PE components
4.01 Core Learning & Support	12,100	9	168	180	
4.02 Science	6,100	4	75	80	
4.03 Applied Labs & Support	10,120	5	93	100	
4.04 Student Commons	2,700	0	0	0	
4.05 Staff Support	2,240	0	0	0	gross areas
Sub-Total:	33,260	18	336	360	
5.0 S.T.E.M. LEARNING COMMUNITY			93%	20	
5.01 Core Learning & Support	12,100	9	168	180	
5.02 Science	6,100	4	75	80	
5.03 Tech Ed	5,200	2	37	40	
5.04 CTC	15,600	6	112	120	
5.05 Student Commons & Support	4,800	0	0	0	
5.06 Staff Support	3,520	0	0	0	
Sub-Total:	47,320	21	392	420	
6.0 SPECIALTY PROGRAMS			93%	20	
6.01 World Languages	10,700	12	187	200	Plus 2 WL classrooms in 9th Grade LC
6.02 Special Education	5,150	4	37	40	Specialized spaces should not be near each other.
6.03 ELL Program	900	1	9	10	
Sub-Total:	16,750	17	233	250	
7.0 VISUAL & PERFORMING ARTS			93%	20	
7.01 Visual Arts	4,800	3	56	60	
7.02 Performing Arts: Music	7,600	3	56	60	
7.03 Performing Arts: Theater	16,900	1	19	20	
Sub-Total:	29,300	7	131	140	
8.0 LIBRARY, LE & TECHNOLOGY			93%	20	
8.01 Library/Media Resources	10,000	0	0	0	
8.02 Learning Enrichment	3,600	4	75	80	approx 40% students study off-campus
8.03 TE/Media Communications	1,200	0	0	0	
8.04 Technology Support	1,800	0	0	0	
Sub-Total:	16,600	4	75	80	

State College Area High School

SUMMARY: FACILITY SPACE PROGRAM for 2,400 STUDENTS

UPDATED: 9/11/13

SPACE CATEGORY	Net Area Sub-Total (sq. ft.)	No. Teaching Stations	Capacity @ 93% Utilization	Student Capacity 100%	COMMENTS
<i>Spaces may change, depending on master planning strategy selected by the School Board.</i>					
9.0 PHYS ED, HEALTH & ATHLETICS			93%	20	
9.01 Physical Instruction	56,400	10	187	200	
9.02 PE/Athletics: Support	19,800	1	19	20	
9.03 PE/Athletics: Amenities	1,600	0	0	0	
Sub-Total:	77,800	11	205	220	
10.0 ADMIN & STUDENT SERVICES			93%	20	
10.01 Administration	5,600	0	0	0	
10.02 Student Services	3,450	0	0	0	
10.03 Health Office	600	0	0	0	
Sub-Total:	9,650	0	0	0	
11.0 STUDENT COMMONS / DINING			93%	20	
11.01 Dining Commons	16,900	0	0	0	
11.02 Kitchen & Servery	7,500	0	0	0	
Sub-Total:	24,400	0	0	0	
12.0 BUILDING SERVICES			93%	20	
12.01 Custodial Support	2,800	0	0	0	
12.02 Building Services	2,000	0	0	0	
Sub-Total:	4,800	0	0	0	
13.0 DELTA PROGRAM			93%	20	
13.01 Delta Program	12,200	12	205	220	
13.02 Delta Support Spaces	1,800	0	0	0	
Sub-Total:	14,000	12	205	220	
SUB-TOTALS:					
	Net Area Sub-Total (Sq. Ft.)	# TS	Calculated % Utilization	Student Capacity 100%	
NET Building Area:	350,000	134	93%	2,570	
		7.5		8	
					CALCULATIONS:
					Target Student Capacity = 2,000 to 2,400
					CAPACITY AT 100% Utilization = 2570
					Avg. # periods teaching stations are used, out of 8/day

1.4.

Gross Building Area: 490,000

Estimated Grossing Factor = 1.4

The next group of spreadsheets present a detail listing of each space that was summarized in the previous two spreadsheets.

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

1.0 9th GRADE LEARNING COMMUNITY

SPACE DESCRIPTION			Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	# TS	Student Capacity (100%)	COMMENTS
1.01 Core Learning & Support			2013 PROGRAM				COMMENTS:	
.01	Core Learning: Type A (regular)		8	850	6,800	8	160	
.02	Core Learning: Type B (smaller)		2	450	900	-	0	small classes, tutoring, testing, etc.
.03	Core Learning: Type C (larger)		2	1,200	2,400	2	40	could be used as technology/computer labs
.04	Core Learning: Type D (LGI)		1	2,400	2,400	-	0	Dividable. Large group, Projects + Presentations
.05	Resource Learning		2	450	900	-	0	no capacity shown for pull-out sped programs
.06	Small Group Rooms		4	100	400	-	0	
Sub-Total:					13,800	10	200	
1.02 9th Grade Science			2013 PROGRAM				COMMENTS:	
.01	Science Labs		4	1,400	5,600	4	80	NSTA recommends 3-4 labs/grade level for 2,400 studen
.02	Science Prep Rooms		2	200	400	-	0	
.03	Shared Storage		1	100	100	-	0	
Sub-Total:					6,100	4	80	
1.03 Student Commons			2013 PROGRAM				COMMENTS:	
.01	Student Commons		2	500	1,000	-	0	
.02	Academy Showcase Space		2	100	200	-	0	
.03	Commons - Open Project Area		2	500	1,000	-	0	
.04	Kitchenette/Vending		2	50	100	-	0	
.05	Club Home-Base Rooms		2	100	200	-	0	
.06	Commons Storage		2	100	200	-	0	
.07	Student Lockers				0	-	0	(typically counted as gross area)
.08	Student Restrooms				0	-	0	(typically counted as gross area)
Sub-Total:					2,700	0	0	
1.04 Staff Support			2013 PROGRAM				COMMENTS:	
.01	Teacher Planning		2	600	1,200	-	0	
.02	Instructional Materials		2	100	200	-	0	
.03	Teacher Task Rooms		4	50	200	-	0	
.04	Private Offices		2	120	240	-	0	
.05	Conference/Recording Rooms		2	200	400	-	0	technology for streaming & recording lectures/lessons
.06	Staff Restrooms				0	-	0	(typically counted as gross area)
Sub-Total:					2,240	0	0	
SUBTOTALS:			PROPOSED BUILDING				CALCULATIONS:	
1.0 9th GRADE LEARNING COMMUNITY			Net Area Sub-Total (Sq. Ft.)			Student Capacity 100%		Utilization Rate = 93%
			24,840			14 280		Student Capacity X Utilization Rate = 261

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

Important: Adjacent to Visual & Performing Arts Components

2.0 ARTS & HUMANITIES LEARNING COMMUNITY

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	# TS	Student Capacity (100%)	COMMENTS
-------------------	-------------------------	---------------------------------	------------------------------------	---------	-------------------------------	----------

2.01 Core Learning & Support

2013 PROGRAM						COMMENTS:
.01 Core Learning: Type A (regular)	6	850	5,100	6	120	
.02 Core Learning: Type B (smaller)	2	450	900	1	20	small classes, tutoring, testing, etc. (1/2 T.S.)
.03 Core Learning: Type C (larger)	2	1,200	2,400	2	40	could be used as technology/computer labs
.04 Core Learning: Type D (LGI)	1	2,400	2,400	-	0	Dividable. Large group, Projects + Presentations
.05 Resource Learning	2	450	900	-	0	no capacity shown for pull-out sped programs
.06 Small Group Rooms	4	100	400	-	0	
Sub-Total:			12,100	9	180	

2.02 Science

2013 PROGRAM						COMMENTS:
.01 Science Labs	4	1,400	5,600	4	80	
.02 Science Prep Rooms	2	200	400	-	0	
.03 Shared Storage	1	100	100	-	0	
.04			0	-	0	
Sub-Total:			6,100	4	80	

2.03 Student Commons

2013 PROGRAM						COMMENTS:
.01 Student Commons	2	500	1,000	-	0	
.02 Academy Showcase Space	2	100	200	-	0	
.03 Commons - Open Project Area	2	500	1,000	-	0	
.04 Kitchenette/Vending	2	50	100	-	0	
.05 Club Home-Base Room	2	100	200	-	0	
.06 Commons Storage	2	100	200	-	0	
.07 Student Lockers			0	-	0	(typically counted as gross area)
.08 Student Restrooms			0	-	0	(typically counted as gross area)
Sub-Total:			2,700	0	0	

2.04 Staff Support

2013 PROGRAM						COMMENTS:
.01 Teacher Planning	2	600	1,200	-	0	
.02 Instructional Materials	2	100	200	-	0	
.03 Teacher Task Rooms	4	50	200	-	0	
.04 Private Offices	2	120	240	-	0	
.05 Conference/Recording Rooms	2	200	400	-	0	technology for streaming & recording lectures/lessons
.06 Staff Restrooms			0	-	0	(typically counted as gross area)
Sub-Total:			2,240	0	0	

SUBTOTALS:

PROPOSED BUILDING

CALCULATIONS:

2.0 ARTS & HUMANITIES LC	Net Area Sub-Total (Sq. Ft.)	Student # Capacity TS 100%	Utilization Rate = 93%
	23,140	13 260	

Student Capacity X Utilization Rate = 243

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

3.0 BUSINESS & COMMUNICATIONS LEARNING COMMUNITY

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	# TS	Student Capacity (100%)	COMMENTS
3.01 Core Learning & Support	2013 PROGRAM					COMMENTS:
.01 Core Learning: Type A (regular)	6	850	5,100	6	120	
.02 Core Learning: Type B (smaller)	2	450	900	1	20	small classes, tutoring, testing, etc. (1/2 T.S.)
.03 Core Learning: Type C (larger)	2	1,200	2,400	2	40	could be used as technology/computer labs
.04 Core Learning: Type D (LGI)	1	2,400	2,400	-	0	Dividable. Large group, Projects + Presentations
.05 Resource Learning	2	450	900	-	0	no capacity shown for pull-out sped programs
.06 Small Group Rooms	4	100	400	-	0	
Sub-Total:			12,100	9	180	
3.02 Science	2013 PROGRAM					COMMENTS:
.01 Science Labs	4	1,400	5,600	4	80	
.02 Science Prep Rooms	2	200	400	-	0	
.03 Shared Storage	1	100	100	-	0	
Sub-Total:			6,100	4	80	
3.03 Business & Management	2013 PROGRAM					COMMENTS:
.01 Classroom: Accounting/Finance	1	900	900	1	20	
.02 Classroom: Entrepreneurship	1	900	900	1	20	
.03 Classroom: Marketing	1	900	900	1	20	supply chain
.04 Roar Store	1	900	900	-	0	
CTC .05 Classroom: Diversified Occ	1	900	900	1	20	could be located with CTC
.06 Business/Management Office	2	200	400	-	0	
.07 Supply/Materials Storage	1	100	100	-	0	
Sub-Total:			5,000	4	80	
3.04 Student Commons	2013 PROGRAM					COMMENTS:
.01 Student Commons	2	500	1,000	-	0	
.02 Academy Showcase Space	2	100	200	-	0	
.03 Commons - Open Project Area	2	500	1,000	-	0	
.04 Kitchenette/Vending	2	50	100	-	0	
.05 Club Home-Base Room	2	100	200	-	0	
.06 Commons Storage	2	100	200	-	0	
.07 Student Lockers			0	-	0	(typically counted as gross area)
.08 Student Restrooms			0	-	0	(typically counted as gross area)
Sub-Total:			2,700	0	0	
3.05 Staff Support	2013 PROGRAM					COMMENTS:
.01 Teacher Planning	2	600	1,200	-	0	
.02 Instructional Materials	2	100	200	-	0	
.03 Teacher Task Rooms	4	50	200	-	0	
.04 Private Offices	2	120	240	-	0	
.05 Conference/Recording Rooms	2	200	400	-	0	technology for streaming & recording lectures/lessons
.06 Staff Restrooms			0	-	0	(typically counted as gross area)
Sub-Total:			2,240	0	0	

SUBTOTALS:

PROPOSED BUILDING

CALCULATIONS:

3.0 BUSINESS & COMMUNICATONS LC	Net Area Sub-Total (Sq. Ft.)	Student # Capacity TS 100%	Utilization Rate = 93%
	28,140	17 340	Student Capacity X Utilization Rate = 318

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

Important: Adjacent to PE/Athletics Component

4.0 HEALTH & HUMAN SERVICES LEARNING COMMUNITY

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	# TS	Student Capacity (100%)	COMMENTS
4.01 Core Learning & Support	2013 PROGRAM					COMMENTS:
.01 Core Learning: Type A (regular)	6	850	5,100	6	120	
.02 Core Learning: Type B (smaller)	2	450	900	1	20	small classes, tutoring, testing, etc. (1/2 T.S.)
.03 Core Learning: Type C (larger)	2	1,200	2,400	2	40	could be used as technology/computer labs
.04 Core Learning: Type D (LGI)	1	2,400	2,400	-	0	Dividable. Large group, Projects + Presentations
.05 Resource Learning	2	450	900	-	0	no capacity shown for pull-out sped programs
.06 Small Group Rooms	4	100	400	-	0	
Sub-Total:			12,100	9	180	
4.02 Science	2013 PROGRAM					COMMENTS:
.01 Science Labs	4	1,400	5,600	4	80	
.02 Science Prep Rooms	2	200	400	-	0	
.03 Shared Storage	1	100	100	-	0	
Sub-Total:			6,100	4	80	
4.03 Applied Labs & Support	2013 PROGRAM					COMMENTS:
CTC .01 Applied Lab: Health Occupations	1	1,800	1,800	1	20	size of 2 classrooms. locate near Training Room/Fitness
.02 Health Occupations Office	1	120	120	-	0	
.03 Supply/Materials Storage	1	100	100	-	0	
CTC .04 Applied Learning Lab: Culinary	1	2,400	2,400	1	20	
.05 Dining/Café	1	600	600	-	0	
.06 Culinary Office	1	120	120	-	0	
.07 Culinary Storage	1	100	100	-	0	
CTC .08 Early Childhood Education	1	900	900	1	20	Combine ECE & Child Development?
.09 Child Development Program	1	900	900	1	20	
.10 Toddler Area	1	400	400	-	0	connection to outdoor area
.11 Restroom/Changing	1	100	100	-	0	
.12 Kitchenette	1	100	100	-	0	
.13 Storage	1	100	100	-	0	
.14 Office	1	120	120	-	0	
.15 Conference Room	1	400	400	-	0	also use for Relationships & Communications program
.16 Applied Learning Lab: FACS/Foods	1	1,500	1,500	1	20	
.17 Teacher Planning Office	1	120	120	-	0	
.18 Dressing/Changing/Laundry	1	80	80	-	0	
.19 Pantry	1	80	80	-	0	
.20 General Storage	1	80	80	-	0	
Sub-Total:			10,120	5	100	
4.04 Student Commons	2013 PROGRAM					COMMENTS:
.01 Student Commons	2	500	1,000	-	0	
.02 Academy Showcase Space	2	100	200	-	0	
.03 Commons - Open Project Area	2	500	1,000	-	0	
.04 Kitchenette/Vending	2	50	100	-	0	
.05 Club Home-Base Room	2	100	200	-	0	
.06 Commons Storage	2	100	200	-	0	
.07 Student Lockers			0	-	0	(typically counted as gross area)
.08 Student Restrooms			0	-	0	(typically counted as gross area)
Sub-Total:			2,700	0	0	
4.05 Staff Support	2013 PROGRAM					COMMENTS:
.01 Teacher Planning	2	600	1,200	-	0	
.02 Instructional Materials	2	100	200	-	0	
.03 Teacher Task Rooms	4	50	200	-	0	
.04 Private Offices	2	120	240	-	0	
.05 Conference/Recording Rooms	2	200	400	-	0	technology for streaming & recording lectures/lessons
.06 Staff Restrooms			0	-	0	(typically counted as gross area)
Sub-Total:			2,240	0	0	
SUBTOTALS:	PROPOSED BUILDING					CALCULATIONS:
4.0 HEALTH & HUMAN SERVICES LC	Net Area Sub-Total (Sq. Ft.)		# TS	Student Capacity (100%)	Utilization Rate = 93%	
	33,260		18	360	Student Capacity X Utilization Rate = 336	

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

5.0 S.T.E.M. LEARNING COMMUNITY

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	# TS	Student Capacity (100%)	COMMENTS
5.01 Core Learning & Support	2013 PROGRAM					COMMENTS:
.01 Core Learning: Type A (regular)	6	850	5,100	6	120	
.02 Core Learning: Type B (smaller)	2	450	900	1	20	small classes, tutoring, testing, etc. (1/2 T.S.)
.03 Core Learning: Type C (larger)	2	1,200	2,400	2	40	could be used as technology/computer labs
.04 Core Learning: Type D (LGI)	1	2,400	2,400	-	0	Dividable. Large group, Projects + Presentations
.05 Resource Learning	2	450	900	-	0	no capacity shown for pull-out sped programs
.06 Small Group Rooms	4	100	400	-	0	
Sub-Total:			12,100	9	180	
5.02 Science	2013 PROGRAM					COMMENTS:
.01 Science Labs	4	1,400	5,600	4	80	
.02 Science Prep Rooms	2	200	400	-	0	
.03 Shared Storage	1	100	100	-	0	
Sub-Total:			6,100	4	80	
5.03 Tech Ed	2013 PROGRAM					COMMENTS:
TE .01 Applied Lab: Woods (Materials/Engineering/Processing)	1	2,800	2,800	1	20	Current space is 1,885sf
TE .02 Applied Lab: Computer Graphics	1	1,800	1,800	1	20	Current space is 1,634sf
TE .03 Supply/Materials Storage	2	100	200	-	0	combine or divide as necessary
TE .04 Equipment Storage/Tool Room	2	200	400	-	0	
Sub-Total:			5,200	2	40	
5.04 CTC	2013 PROGRAM					COMMENTS:
CTC .01 Applied Lab: Drafting/Design	1	1,800	1,800	1	20	Current is 1,222sf
CTC .02 Applied Lab: Network (CISCO)	1	1,800	1,800	1	20	Current is 1,230sf
CTC .03 Applied Lab: Engineering/Technology	1	1,800	1,800	1	20	also open to science, CTC, etc. to use as lab facility
CTC .04 Applied Lab: Automotive	1	2,800	2,800	1	20	Current is 1,729sf
CTC .05 Applied Lab: Construction	1	2,800	2,800	1	20	Current is 1,729sf
CTC .06 Applied Lab: Agriculture	1	2,800	2,800	1	20	Current is 2,375sf
CTC .07 Greenhouse, with drip irrigation	1	600	500	-	0	access from Ag Lab, also include outdoor growing area
CTC .08 Supply/Materials Storage	7	100	700	-	0	combine or divide as necessary
CTC .09 Equipment Storage/Tool Rooms	3	200	600	-	0	combine or divide as necessary
			15,600	6	120	
5.05 Student Commons & Support	2013 PROGRAM					COMMENTS:
.01 Shared Classrooms	2	800	1,600	-	0	not counted towards student capacity
.02 Conference / Small Group Rooms	4	200	800	-	0	
.03 S.T.E.M. Commons	2	600	1,200	-	0	
.04 STEM Showcase / Transaction	6	200	1,200	-	0	
.05 Kitchenette/Vending			0	-	0	
.06 Student Lockers			0	-	0	(typically counted as gross area)
.07 Student Restrooms			0	-	0	(typically counted as gross area)
0			4,800	0	0	
5.06 Staff Support	2013 PROGRAM					COMMENTS:
.01 Teacher Centers (Office, Planning, etc.)	4	400	1,600	-	0	
.02 Instructional Materials/Resources Storage	2	100	200	-	0	
.03 Teacher Task Rooms	4	50	200	-	0	
.04 Private Offices	6	120	720	-	0	
.05 Conference/Recording Rooms	4	200	800	-	0	technology for streaming & recording lectures/lessons
.06 Staff Restrooms			0	-	0	(typically counted as gross area)
0			3,520	0	0	
5.07 Outdoor Areas (no SqFt counted)	2013 PROGRAM					COMMENTS:
.01 Outdoor Covered Storage	2	600	-	-	0	easy access for deliveries
.02 Outdoor Instruction / Project Yard	2	1,500	-	-	0	access from applied labs
.03 Outdoor Auto Area	1	600	-	-	0	access from Automotive Lab
.04 Outdoor Agricultural Area	1	600	-	-	0	access from Ag Lab
0			0	0	0	
SUB-TOTALS:	PROPOSED BUILDING					CALCULATIONS:
5.0 S.T.E.M. LC	Net Area Sub-Total (Sq. Ft.)			# TS	Student Capacity 100%	Utilization Rate = 93%
	47,320			21	420	Student Capacity X Utilization Rate = 392

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

6.0 SPECIALTY PROGRAMS

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	Student # Capacity TS (100%)	COMMENTS
6.01 World Languages	2013 PROGRAM				COMMENTS:
.01 Core Learning: Type A (regular)	10	850	8,500	10 200	
.02 Core Learning: Type B (smaller)	2	600	1,200	2 0	for upper-level courses with fewer students
.03 Language Commons (w/Kitchenette)	1	450	450	- 0	
.04 Teacher Planning	1	450	450	- 0	
.05 Storage	1	100	100	- 0	
Sub-Total:			10,700	12 200	(12 Language Classrooms Total)
6.02 Special Education	2013 PROGRAM				COMMENTS:
.01 Core Learning: Specialized	4	800	3,200	4 40	
.02 Special Needs Restroom/Changing	2	100	200	- 0	
.03 Resource Rooms (within Learning Communities)			0	- 0	
.04 OT/PT Room	1	400	400	- 0	
.05 OT/PT & Adaptive Skills Equip. Storage	1	100	100	- 0	
.06 Sensory Room	1	200	200	- 0	
.07 Small Group Rooms	2	100	200	- 0	
.08 SpEd Offices	2	125	250	- 0	
.09 Teacher Prep/Workroom	1	200	200	- 0	
.10 Conference/IEP Room	1	200	200	- 0	
.11 General Storage	2	100	200	- 0	
Sub-Total:			5,150	4 40	
6.03 ELL Program	2013 PROGRAM				COMMENTS:
.01 Core Learning: ELL	1	900	900	1 10	Dividable
.02			0	- 0	
Sub-Total:			900	1 10	
SUB-TOTALS:	PROPOSED BUILDING			CALCULATIONS:	
6.0 SPECIALTY PROGRAMS	Net Area Sub-Total (Sq. Ft.)			Student # Capacity TS 100%	Utilization Rate = 93%
	16,750			17 250	Student Capacity X Utilization Rate = 233

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

7.0 VISUAL & PERFORMING ARTS

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	Student # Capacity TS (100%)	COMMENTS
-------------------	-------------------------	---------------------------------	------------------------------------	--	----------

7.01 Visual Arts

2013 PROGRAM					COMMENTS:
.01 Art Studio	2	1,200	2,400	2	40
.02 Design Consultation Center	1	1,000	1,000	1	20
.03 Kiln Room/Clay Storage	1	200	200	-	0
.04 Supply Storage	2	200	400	-	0
.05 Project Storage	2	200	400	-	0
.06 Art Office / Art Resources	1	200	200	-	0
.07 Project Showcase / Gallery	1	200	200	-	0
Sub-Total:			4,800	3	60

7.02 Performing Arts: Music

2013 PROGRAM					COMMENTS:
.01 General Music	1	1,600	1,600	1	20
.02 Instrumental Music	1	2,400	2,400	1	20
.03 Music Theory / Digital Music	1	1,200	1,200	1	20
.04 Ensemble/Sections (Large Practice)	1	200	200	-	0
.05 Practice Rooms	4	50	200	-	0
.06 Instrument Storage	1	400	400	-	0
.07 Recording Room / Sound Equipment	1	50	50	-	0
.08 Music Resources/Library	1	100	100	-	0
.09 Uniform / Robe Storage	1	400	400	-	0
.10 Equipment Storage	1	400	400	-	0
.11 Music Office	1	250	250	-	0
.12 Music Commons	1	400	400	-	0
Sub-Total:			7,600	3	60

7.03 Performing Arts: Theater

2013 PROGRAM					COMMENTS:
.01 Theater Seating (900 seats)	1	8,000	8,000	-	0
.02 Stage / Orchestra Pit	1	3,000	3,000	-	0
.03 Control Booth	1	100	100	-	0
.04 Dressing Rooms	2	225	450	-	0
.05 Restrooms	2	50	100	-	0
.06 Scene Shop	1	1,000	1,000	-	0
.07 Scene/Prop Storage	1	400	400	-	0
.08 Costume Shop/Makeup Room	1	400	400	-	0
.09 General Storage	1	200	200	-	0
.10 PA/Theater Office	1	150	150	-	0
.11 Box Office	1	100	100	-	0
.12 Black Box Theater	1	3,000	3,000	1	20
Sub-Total:			16,900	1	20

SUB-TOTALS:

7.0 VISUAL & PERFORMING ARTS	PROPOSED BUILDING	CALCULATIONS:
	Net Area Sub-Total (Sq. Ft.)	Student # Capacity TS 100%
	29,300	7 140
		Utilization Rate = 93%
		Student Capacity X Utilization Rate = 131

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

8.0 LIBRARY, LE & TECHNOLOGY

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	Student # Capacity TS (100%)	COMMENTS
8.01 Library/Media Resources	2013 PROGRAM				COMMENTS:
.01 Library/Media Center	1	5,600	5,600	- 0	Includes: Circulation, reading room, collections/bookstacks
.02 Student Success Hub	1	1,200	1,200	- 0	academic help desk/genius bar, credit recovery, make up testing, t
.03 Media Café	1	400	400	- 0	could "leak" outside of formal library space into adjacent commons
.04 Small Group Rooms	4	100	400	- 0	
.05 Collegiate Lecture Hall	1	1,400	1,400	- 0	Lecture space: high end technology, adjacent to tv studio
.06 Media Specialist & Staff Office	1	200	200	- 0	
.07 Workroom/Storage	1	300	300	- 0	
.08 Staff Professional Library	1	400	400	- 0	
.09 Library Restrooms	2	50	100	- 0	
.10					
Sub-Total:			10,000	0 0	
8.02 Learning Enrichment	2013 PROGRAM				COMMENTS: some LE students learn off campus
.01 LE Office	1	200	200	- 0	
.02 Learning Enrichment	1	1,600	1,600	2 40	"open" to Media Café & Reading room
.03 LE - Art Smart	1	1,600	1,600	2 40	Near Arts Cluster
.04 Storage	2	100	200	- 0	
Sub-Total:			3,600	4 80	
8.03 TE/Media Communications	2013 PROGRAM				COMMENTS:
.01 Video/TV Studio	1	600	600	- 0	adjacent to Lecture Hall
.02 Video/TV Control & Editing	1	200	200	- 0	
.03 Storage	1	50	50	- 0	
.04 Yearbook/Journalism	1	350	350	- 0	
Sub-Total:			1,200	0 0	
8.04 Technology Support	2013 PROGRAM				COMMENTS:
.01 Technology Office	1	150	150	- 0	students devices provided by district . students allowed to bring ow
.02 Tech Equipment Maintenance	1	150	150	- 0	how the facility supports the effective use and operational for the w
.03 Equipment Storage	1	300	300	- 0	security of devices is important
.04 Help Desk/Equipment Check-out	1	200	200	- 0	
.05 Network Center/Server Room	1	1,000	1,000	- 0	HS is network center for entire district, outside access, can be any
Sub-Total:			1,800	0 0	
SUB-TOTALS:	PROPOSED BUILDING				CALCULATIONS:
8.0 LIBRARY, LE & TECHNOLOGY	Net Area Sub-Total (Sq. Ft.)			Student # Capacity TS 100%	Utilization Rate = 93%
	16,600			4 80	Student Capacity X Utilization Rate = 75

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

9.0 PHYS ED, HEALTH & ATHLETICS

Important: Adjacent to Health & Human Services Academy

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	Student # Capacity TS (100%)	COMMENTS
-------------------	-------------------------	---------------------------------	------------------------------------	--	----------

9.01 Physical Instruction	2013 PROGRAM					COMMENTS:
.01 Main Gymnasium/Indoor Track	1	16,000	16,000	1	20	
.02 Auxiliary Gymnasium	2	9,000	18,000	2	40	2 cross courts each
.03 Wrestling/Aerobics/Dance/Yoga	1	3,000	3,000	1	20	sized for 2 wrestling mats (38'x38', 28' circle min)
.04 Fitness / Weight Room	1	3,000	3,000	1	20	can be combined with cardio area
.05 Fitness / Cardio Area (within Weight Room)	1	2,000	2,000	1	20	can be combined with weight area
.06 Health Classrooms	2	800	1,600	2	40	
.07 Natatorium	1	12,000	12,000	1	20	
.08 Driver's Education	1	800	800	1	20	
.09			0	-	0	
.10			0	-	0	
Sub-Total:			56,400	10	200	

9.02 PE/Athletics: Support	2013 PROGRAM					COMMENTS:
.01 PE Locker Rooms	2	2,000	4,000	-	0	
.02 PE Storage	3	800	2,400	-	0	
.03 PE Office / Workroom (6 office stations, total)	2	400	800	-	0	for 6 staff
.04 Athletics Director Office	1	300	300	-	0	
.05 Athletics Director Admin	1	100	100	-	0	
.06 Athletics Director Storage	1	40	40	-	0	
.07 Athletics Locker Rooms	2	2,000	4,000	-	0	
.08 Athletics Equipment Storage	1	800	800	-	0	
.09 Coaches Office / Workroom / Resources	2	400	800	-	0	
.10 Staff/Coaches Locker/Showers	2	200	400	-	0	
.11 Training Room (incl office & storage)	1	1,200	1,200	-	0	also serves Health Occ. program
.12 Bag Room	2	250	500	-	0	
.13 Pool Shower/Locker Rooms	2	1,000	2,000	-	0	
.14 Laundry	1	100	100	-	0	
.15 Conference/Team Room	1	1,000	1,000	1	20	can be used as additional health classroom
.16 Pool Equip. Storage	1	800	800	-	0	
.17 Private PE Offices	3	120	360	-	0	Pool, PE Dept head, +1
.18 Adaptive PE Equipment Storage	1	200	200	-	0	
Sub-Total:			19,800	1	20	

9.03 PE/Athletics: Amenities	2013 PROGRAM					COMMENTS:
.01 Gymnasium Prefunction Area	1	800	800	-	0	+ gross area. Include display & trophy cases
.02 Concessions	1	400	400	-	0	includes dry storage
.03 Public / Spectator Restrooms	2		0	-	0	(typically counted as gross area)
.04 Community Equipment Storage	2	200	400	-	0	
Sub-Total:			1,600	0	0	

SUB-TOTALS:

PROPOSED BUILDING

CALCULATIONS:

9.0 PHYS ED, HEALTH & ATHLETICS	Net Area Sub-Total (Sq. Ft.)	Student # Capacity TS 100%	Utilization Rate = 93%
	77,800	11 220	Student Capacity X Utilization Rate = 205

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

10.0 ADMIN & STUDENT SERVICES

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	COMMENTS
10.01 Administration	2013 PROGRAM			COMMENTS:
.01 Welcome/Security Desk	1	150	150	needs to be responsible for visitor control
.02 Reception / Waiting	1	400	400	
.03 Receptionist	1	150	150	
.04 Deliveries Alcove	1	20	20	control by security
.05 Administrative Assistants	5	80	400	
.06 Principal Office	2	200	400	Maintain 2 principals, 9-10 + 11-12
.07 Assistant Principal Offices	4	150	600	
.08 General Administrative Offices	6	120	720	business office needs lockable door
.09 Large Conference Room	1	500	500	
.10 Small Conference Room	1	200	200	
.11 Attendance Clerks	1	200	200	shared office, teller window to commons
.12 Security Offices	2	120	240	control for desires to office, Probation
.13 Records Room (Secured)	1	100	100	testing materials, records, etc.
.14 Vault (confidential records)	1	100	100	shared office, teller window to commons
.15 Workroom / Mail Room	1	400	400	mail sorted by principal's asst with help from students
.16 Teacher Lounge w/Kitchenette	1	400	400	access without going through office
.17 Storage	1	100	100	
.18 Staff Restrooms	2	50	100	
.19 Activities Director (A. P.)	1	150	150	transaction window, near vault/safe, workroom, storage
.20 Activities Assistant	1	80	80	easy access to public/commons, and to vault, close to gym as possible
.21 Activities Storage Closet	1	20	20	shelving storage for supplies, equip., walkie-talkies, etc.
.22 Lost & Found Alcove	1	20	20	easily accessible
.23 Office staff break room/kitchenette	1	150	150	separate from teacher break room
Sub-Total:			5,600	
10.02 Student Services	2013 PROGRAM			COMMENTS:
.01 Reception / Waiting	1	200	200	
.02 Receptionist	1	80	80	
.03 Counselor Offices	8	120	960	
.04 Social Worker Office	1	120	120	
.05 Psychologist	1	120	120	
.06 Speech	1	120	120	
.07 Transition Coordinator	1	120	120	
.08 Itinerant Workstations (Group Office)	1	240	240	
.09 Career/College Coach	1	120	120	
.10 Career/College Resource Center	1	500	500	
.11 Career/Internship Coordinator	1	120	120	
.12 Workroom / Storage	1	100	100	includes copier(s)
.13 Records Room (Secured)	1	80	80	
.14 Conference Room	1	240	240	
.15 Small Conference Room / Testing	1	150	150	
.16 Test Materials Storage	1	80	80	secure room
.17 Staff Restrooms	2	50	100	
Sub-Total:			3,450	
10.03 Health Office	2013 PROGRAM			COMMENTS:
.01 Nurse Office	1	120	120	confidentiality
.02 Exam/Treatment	1	120	120	
.03 Cot Area	2	100	200	3-4 cots, could be one larger space
.04 Restroom with Shower	1	80	80	
.05 Secure Storage	1	80	80	
Sub-Total:			600	
SUB-TOTALS:	PROPOSED BUILDING			CALCULATIONS:
10.0 ADMIN & STUDENT SERVICES	Net Area Sub-Total (Sq. Ft.)			
	9,650			

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

11.0 STUDENT COMMONS / DINING

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	COMMENTS
-------------------	-------------------------	---------------------------------	------------------------------------	----------

11.01 Dining Commons

2013 PROGRAM

COMMENTS:

.01 Dining Commons/Food Court	1	15,000	15,000	can be separated, includes food-court
.02 Staff Commons/Dining Area	1	1,000	1,000	
.03 Vending / Snacks	2	50	100	
.04 Table/Chair Storage	2	400	800	
.05 Student Commons: Club Hub			0	club spaces within learning communities
Sub-Total:			16,900	

11.02 Kitchen & Servery

2013 PROGRAM

COMMENTS:

.01 Kitchen (Inclusive)	1	7,500	7,500	Wish to serve 2000 meals each day.
.02 Servery Stations			0	food court approach
.03 Point of Sale Stations			0	
.04 Kitchen: Food Prep			0	
.05 Kitchen: Dishwashing			0	
.06 Kitchen: Storage			0	
.07 Kitchen: Cold Storage			0	
.08 Food Services Office			0	
.09 Staff Lockers			0	
.10 Staff Restrooms			0	
.11 Food Services Laundry			0	
.12 Food Services Receiving Area			0	
.13 Elementary Commissary			0	commissary for all Elementary schools.
Sub-Total:			7,500	

SUB-TOTALS:

PROPOSED BUILDING

CALCULATIONS:

11.0 STUDENT COMMONS / DINING	Net Area Sub-Total (Sq. Ft.)	
	24,400	

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

12.0 BUILDING SERVICES

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	COMMENTS
-------------------	-------------------------	---------------------------------	------------------------------------	----------

12.01 Custodial Support

	2013 PROGRAM			COMMENTS:
.01 Maintenance Office	1	200	200	
.02 Maintenance/Repair Area	1	800	800	
.03 Staff Locker Rooms	2	300	600	
.04 Staff Break Room	1	400	400	
.05 Custodial Equipment Storage	2	400	800	
.06 Custodial Closets			0	gross area
Sub-Total:			2,800	

12.02 Building Services

	2013 PROGRAM			COMMENTS:
.01 Receiving Area	2	400	800	
.02 General Building Storage	2	600	1,200	
.03			0	
.04			0	
.05			0	
Sub-Total:			2,000	

SUB-TOTALS:

12.0 BUILDING SERVICES	PROPOSED BUILDING Net Area Sub-Total (Sq. Ft.)	CALCULATIONS:
	4,800	

State College Area High School

FACILITY SPACE PROGRAM

UPDATED: 9/11/13

Spaces may change, depending on master planning strategy selected by the School Board.

13.0 DELTA PROGRAM

SPACE DESCRIPTION	Total # of Spaces	Area of Ea. Sp. (sq. ft.)	Net Area Sub-Total (sq. ft.)	# Student Capacity TS (100%)	COMMENTS
13.01 Delta Program	2013 PROGRAM				COMMENTS:
.01 Core Learning: Type A (regular)	8	800	6,400	8	160
.02 Core Learning: Type B (smaller)	2	450	900	2	20
.03 Applied Learning: Project Area	1	1,200	1,200	1	20
.04 Science Lab	1	1,400	1,400	1	20
.05 Science Prep	1	200	200	-	0
.06 Resource Learning	2	450	900	-	0
.07 Small Group Rooms	2	100	200	-	0
.08 Student Commons/Kitchenette	1	800	800	-	0
.09 Showcase Space	2	100	200	-	0
.10			0	-	0
Sub-Total:			12,200	12	220
13.02 Delta Support Spaces	2013 PROGRAM				COMMENTS:
.01 Welcome Center / Receptionist	1	100	100	-	0
.02 Director's Office	1	200	200	-	0
.03 Private Offices	2	120	240	-	0
.04 Teacher Planning	1	600	600	-	0
.05 Teacher Task Rooms	2	50	100	-	0
.06 Conference/Recording Room	1	200	200	-	0
.07 General Storage	2	180	360	-	0
.08 Student Restrooms			0	-	0
.09 Staff Restrooms			0	-	0
.10 Janitor Closet			0	-	0
Sub-Total:			1,800	0	0
SUB-TOTALS:	PROPOSED BUILDING			CALCULATIONS:	
13.0 DELTA PROGRAM	Net Area Sub-Total (Sq. Ft.)			# Student Capacity TS 100%	Utilization Rate = 93%
	14,000			12	220
				Student Capacity X Utilization Rate = 205	

Part 6. Comparison of Educational Specification to Current High School

The current High School campus contains approximately 302,000 sf of program space. The proposed Educational Specification (Ed Spec) suggests 336,000 sf of program space (not including the Delta program which is not on the current High School campus). This represents an addition of approximately 34,000 sf of program space for a projected static student enrollment.

A table of general comparisons based on pages 3 to 11 of the Ed Spec is attached. This table is abbreviated to include educational spaces and does not attempt to reconcile offices, restrooms and storage.

Analysis of “Core Learning”

Due to the change in educational model, a direct line comparison of the current program to the proposed program creates some challenges. One of the primary difficulties is that due to the learning community model, English, Math, Social Studies, and World Languages are listed collectively as “Core Learning.” The proposed program has 54 distinct “Core Learning” rooms compared to the current high school, which has 50 of these rooms. However, to further complicate the comparison, the current high school is largely comprised of standard-sized classrooms, the proposed Ed Spec is comprised of standard-, small-, large- and large-group-sized rooms. While this complicates the comparison, it is planned to create opportunities for flexibility in program delivery. On the attached comparison chart, the core learning rooms are depicted as bold. To partially compensate for the 50- to 54-room discrepancy, two small rooms (450 sf each) in each learning community are balanced against one standard-sized room (850 sf) from the existing building.

Analysis of Program Growth-

Each community also contains a Large Group Instruction Room (LGI), which is balanced against a standard-sized classroom in the existing buildings. This accounts for approximately 7,500 sf of the identified program growth. (Each of 5 LGI's are 2,400 sf compared to a 900 sf classroom.)

The proposed Ed Spec also includes four small group rooms and a student commons in each learning community. These are not present at the current High School. This accounts for 17,600 sf of the identified program growth.

An additional space, that is included in the proposed Ed Spec that is not present in the current high school buildings, is a collegiate lecture hall associated with the library. This accounts for 1,400 sf of the identified program growth.

Finally, the dining areas, which are grossly undersized in the current buildings, have been increased by 6,000 sf.

A summation of the major factors impacting the program growth are tabulated below.

Program Additions:	Square footage impact:
Added sf for Inclusion of 5 LGI's	7,500
5 Student commons and 20 SGI's	17,600
Lecture hall	1,400
Dining Areas	6,000
Total impact of above items	32,500

SCASD High School Proposed Educational Specification Comparison

October 14, 2013

1.0 9th GRADE LEARNING COMMUNITY			
1.01 Core Learning & Support	2013 PROGRAM	CURRENT	Comments
0.01 Core Learning: Type A (regular)	8	8	
0.02 Core Learning: Type B (smaller)	2	2	(tutoring)
0.03 Core Learning: Type C (larger)	2	2	
0.04 Core Learning: Type D (LGI)	1	0	
(current HS room replace by LGI)		1	standard sized room
0.05 Resource Learning	2	2	
0.06 Small Group Rooms	4	0	
1.02 Science	2013 PROGRAM	CURRENT	Comments
0.01 Science Labs	4	3	
1.03 Student commons	2013 PROGRAM	CURRENT	Comments
0.01 Student Commons	2	0	
0.02 Academy Showcase Space	2	0	
0.03 Commons - Open Project Area	2	0	
0.04 Kitchenette/Vending	2	0	
0.05 Club Home-Base Rooms	2	0	
0.06 Commons Storage	2	0	
2.0 ARTS & HUMANITIES LC			
2.01 Core Learning	2013 PROGRAM	CURRENT	Comments
0.01 Core Learning: Type A (regular)	6	6	
0.02 Core Learning: Type B (smaller)	2	1	
0.03 Core Learning: Type C (larger)	2	2	
0.04 Core Learning: Type D (LGI)	1	0	
(current HS room replace by LGI)		1	standard sized room
0.05 Resource Learning	2	2	
0.06 Small Group Rooms	4	0	
2.02 Science	2013 PROGRAM	CURRENT	Comments
0.01 Science Labs	4	4	
2.03 Student commons	2013 PROGRAM	CURRENT	Comments
0.01 Student Commons	2	0	
0.02 Academy Showcase Space	2	0	
0.03 Commons - Open Project Area	2	0	
0.04 Kitchenette/Vending	2	0	
0.05 Club Home-Base Room	2	0	
0.06 Commons Storage	2	0	
3.0 BUSINESS & COMMUNICATONS LC			
3.01 Core Learning	2013 PROGRAM	CURRENT	Comments
0.01 Core Learning: Type A (regular)	6	6	
0.02 Core Learning: Type B (smaller)	2	1	
0.03 Core Learning: Type C (larger)	2	2	
0.04 Core Learning: Type D (LGI)	1	0	
(current HS room replace by LGI)		1	
0.05 Resource Learning	2	2	
0.06 Small Group Rooms	4	0	
3.02 Science	2013 PROGRAM	CURRENT	Comments
0.01 Science Labs	4	4	
3.03 Business & Management	2013 PROGRAM	CURRENT	Comments
0.01 Classroom: Accounting/Finance	1	1	
0.02 Classroom: Entrepreneurship	1	1	
0.03 Classroom: Marketing	1	1	
0.04 Roar Store	1	2	
0.05 Classroom: Diversified Occ	1	1	
3.04 Student Commons	2013 PROGRAM	CURRENT	Comments
0.01 Student Commons	2	0	
0.02 Academy Showcase Space	2	0	
0.03 Commons - Open Project Area	2	0	
0.04 Kitchenette/Vending	2	0	
0.05 Club Home-Base Room	2	0	
0.06 Commons Storage	2	0	

SCASD High School Proposed Educational Specification Comparison

October 14, 2013

4.0 HEALTH & HUMAN SERVICES LC			
4.01 Core Learning	2013 PROGRAM	CURRENT	Comments
0.01 Core Learning: Type A (regular)	6	6	
0.02 Core Learning: Type B (smaller)	2	1	
0.03 Core Learning: Type C (larger)	2	2	
0.04 Core Learning: Type D (LGI)	1	0	
<i>(current HS room replace by LGI)</i>		1 standard sized room	
0.05 Resource Learning	2	2	
0.06 Small Group Rooms	4	0	
4.02 Science	2013 PROGRAM	CURRENT	Comments
0.01 Science Labs	4	4	
4.03 Applied Labs & Support	2013 PROGRAM	CURRENT	Comments
0.01 Applied Lab: Health Occupations	1	1	
0.04 Applied Learning Lab: Culinary	1	1	
0.08 Early Childhood Education	1	1	
0.09 Child Development Program	1	1	
0.10 Toddler Area	1	0	
0.11 Restroom/Changing	1	0	
0.12 Kitchenette	1	0	
0.15 Conference Room	1	0	
0.16 Applied Learning Lab: FACS/Foods	1	3	
4.04 Student Commons	2013 PROGRAM	CURRENT	Comments
0.01 Student Commons	2	0	
0.02 Academy Showcase Space	2	0	
0.03 Commons - Open Project Area	2	0	
0.04 Kitchenette/Vending	2	0	
0.05 Club Home-Base Room	2	0	
0.06 Commons Storage	2	0	
5.0 S.T.E.M. LEARNING COMMUNITY			
5.01 Core Learning & Support	2013 PROGRAM	CURRENT	Comments
0.01 Core Learning: Type A (regular)	6	6	
0.02 Core Learning: Type B (smaller)	2	1	
0.03 Core Learning: Type C (larger)	2	2	
0.04 Core Learning: Type D (LGI)	1	0	
<i>(current HS room replace by LGI)</i>		1 standard sized room	
0.05 Resource Learning	2	2	
0.06 Small Group Rooms	4	0	
5.02 Science	2013 PROGRAM	CURRENT	Comments
0.01 Science Labs	4	4	
5.03 Tech Ed	2013 PROGRAM	CURRENT	Comments
0.01 Applied Lab: Woods (Materials/Engineering/Process)	1	1	
0.02 Applied Lab: Computer Graphics	1	1	
5.04 CTC	2013 PROGRAM	CURRENT	Comments
0.01 Applied Lab: Drafting/Design	1	1	
0.02 Applied Lab: Network (CISCO)	1	1	
0.03 Applied Lab: Engineering/Technology	1	1	
0.04 Applied Lab: Automotive	1	1	
0.05 Applied Lab: Construction	1	1	
0.06 Applied Lab: Agriculture	1	1	
0.07 Greenhouse, with drip irrigation	1	1	
5.05 Student Commons & Support	2013 PROGRAM	CURRENT	Comments
0.01 Shared Classrooms	2	0	
0.02 Conference / Small Group Rooms	4	0	
0.03 S.T.E.M. Commons	2	0	
0.04 STEM Showcase / Transaction	6	0	
0.05 Kitchenette/Vending	0	0	
0.06 Student Lockers	0	0	

SCASD High School Proposed Educational Specification Comparison

October 14, 2013

6.0 SPECIALTY PROGRAMS			
6.01 World Languages	2013 PROGRAM	CURRENT	Comments
0.01 Core Learning: Type A (regular)	10	10	
0.02 Core Learning: Type B (smaller)	2	0	
0.03 Language Commons (w/Kitchenette)	1	0	
6.02 Special Education	2013 PROGRAM	CURRENT	Comments
0.01 Core Learning: Specialized	4	6	
0.02 Special Needs Restroom/Changing	2	0	
0.04 OT/PT Room	1	0	
0.05 OT/PT & Adaptive Skills Equip. Storage	1	0	
0.06 Sensory Room	1	0	
0.07 Small Group Rooms	2	0	
0.01 Conference/IEP Room	1	0	
6.03 ELL Program	2013 PROGRAM	CURRENT	Comments
0.01 Core Learning: ELL	1	1	
7.0 VISUAL & PERFORMING ARTS			
7.01 Visual Arts	2013 PROGRAM	CURRENT	Comments
0.01 Art Studio	2	3	
0.02 Design Consultation Center	1	1	
0.03 Project Showcase / Gallery	1	0	
7.02 Performing Arts: Music	2013 PROGRAM	CURRENT	Comments
0.01 General Music	1	1	
0.02 Instrumental Music	1	1	
0.03 Music Theory / Digital Music	1	1	
0.04 Ensemble/Sections (Large Practice)	1	0	
0.05 Practice Rooms	4	3	
0.12 Music Commons	1	0	
7.03 Performing Arts: Theater	2013 PROGRAM	CURRENT	Comments
0.01 Theater Seating (900 seats)	1	2 (N=872, S=636)	
0.02 Stage / Orchestra Pit	1	2	
0.03 Control Booth	1	2	
0.04 Dressing Rooms	2	0	
0.06 Scene Shop	1	0	
0.07 Scene/Prop Storage	1	0	
0.08 Costume Shop/Makeup Room	1	0	
0.10 PA/Theater Office	1	0	
0.11 Box Office	1	0	
0.12 Black Box Theater	1	0	
8.0 LIBRARY, LE & TECHNOLOGY			
8.01 Library/Media Resources	2013 PROGRAM	CURRENT	Comments
0.01 Library/Media Center	1	2	
0.02 Student Success Hub	1	0	
0.03 Media Café	1	0	
0.04 Small Group Rooms	4	0	
0.05 Collegiate Lecture Hall	1	0	
0.06 Media Specialist & Staff Office	1	0	
0.07 Workroom/Storage	1	0	
0.08 Staff Professional Library	1	0	
8.02 Learning Enrichment	2013 PROGRAM	CURRENT	Comments
0.02 Learning Enrichment (double sized)	1	2	
0.03 LE - Art Smart	1	1	
9.0 PHYS ED, HEALTH & ATHLETICS			
9.01 Physical Instruction	2013 PROGRAM	CURRENT	Comments
0.01 Main Gymnasium/Indoor Track	1	1	
0.02 Auxiliary Gymnasium	2	2	
0.03 Wrestling/Aerobics/Dance/Yoga	1	1	
0.04 Fitness / Weight Room	1	1	
0.05 Fitness / Cardio Area (within Weight Room)	1	1	
0.06 Health Classrooms (see 0.15)	2	3	
0.07 Natatorium	1	1	
0.08 Driver's Education	1	1	
9.02 PE/Athletics: Support	2013 PROGRAM	CURRENT	Comments
0.01 PE Locker Rooms	2	2	
0.11 Training Room (incl office & storage)	1	1	
0.13 Pool Shower/Locker Rooms	2	2	
0.15 Conference/Team Room (Health during school day)	1	0	

Appendix: Demographics supporting a 2,400-student school

The High School is being planned for 2,400 students, which is only slightly larger than the current student population. This decision was based on demographic information developed by Dr. Shelby Stewman. The following tables summarize the findings of his work.

Table 1

**Annual Number of Births to State College Area School District
Residents by Municipality and Year: 1990-2011¹**

	College Township	Ferguson Township	Half Moon Township	Harris Township	Patton Township	State College Boro	Total
1990	128	135	31	65	159	209	727
1991	154	117	40	71	139	170	691
1992	123	138	38	66	148	174	687
1993	105	133	53	65	122	218	696
1994	100	114	34	52	123	205	628
1995	126	120	35	57	105	188	631
1996	96	139	30	47	118	211	641
1997	79	117	37	43	102	181	559
1998	87	145	30	44	110	164	580
1999	71	163	43	46	108	142	572
2000	60	158	25	46	149	186	624
2001	88	146	38	51	118	151	592
2002	69	174	40	58	125	174	640
2003	82	176	30	44	132	157	621
2004	75	178	43	42	118	180	636
2005	84	176	16	58	112	175	621
2006	89	187	27	51	123	171	648
2007	72	188	28	43	155	138	624
2008	92	178	18	43	113	140	584
2009	95	160	21	42	151	145	614
2010	107	169	22	52	151	171	672
2011 ²	75	153	26	39	137	147	577
Σ 1990-1994	610	637	196	319	691	976	3429
Σ 1995-1999	459	684	174	237	543	886	2983
Σ 2000-2004	374	832	176	241	642	848	3113
Σ 2005-2009	432	899	110	237	654	769	3091
Σ 2010-2011	182	322	48	91	288	318	1249
Average/Year							
1990-1994	122.0	127.4	39.2	63.8	138.2	195.2	685.8
1995-1999	91.8	136.8	34.8	47.4	108.6	177.2	596.6
2000-2004	74.8	166.4	35.2	48.2	128.4	169.6	622.6
2005-2009	86.4	177.8	22.0	47.4	130.8	153.8	618.2
2010-2011	91.0	161.0	24.0	45.5	144.0	159.0	624.5

¹ Source: Department of Health, Commonwealth of Pennsylvania

² Preliminary estimates from Department of Health, Commonwealth of Pennsylvania

Δ_1^*	-30.2	+9.4	-4.4	-16.4	-29.6	-18.0	-89.2 (-13.0%)
Δ_2^*	-17.0	+29.6	+0.4	+0.8	+19.8	-7.6	+26.0 (+4.4%)
Δ_3^*	+11.6	+11.4	-13.2	-0.8	+2.4	-15.8	-4.4 (-0.7%)
Δ_4^*	+4.6	-16.8	+2.0	-1.9	+13.2	+5.2	+6.3 (+1.0%)

^{*} Δ_1 (1990-1994 average) → (1995-1999 average)
^{*} Δ_2 (1995-1999 average) → (2000-2004 average)
^{*} Δ_3 (2000-2004 average) → (2005-2009 average)
^{*} Δ_4 (2005-2009 average) → (2010-2011 average)

Table 3

Distribution of Births by Age of Mother and Year
in the State College Area School District^a

AGE								
Year	15-19	20-24	25-29	30-34	35-39	40-44	45	Total Births
1990	.037	.151	.382	.303	.109	.017	.001	727
1991	.033	.129	.378	.305	.137	.017	.000	691
1992	.026	.148	.335	.333	.137	.020	.000	687
1993	.040	.131	.316	.365	.126	.022	.000	696
1994	.045	.142	.325	.336	.127	.025	.000	628
1995	.040	.130	.331	.339	.135	.024	.002	631
1996	.036	.133	.304	.359	.154	.014	.000	641
1997	.025	.140	.299	.315	.179	.043	.000	559
1998	.034	.122	.291	.367	.164	.021	.000	580
1999	.037	.140	.292	.343	.164	.024	.000	572
2000	.029	.114	.252	.378	.184	.042	.002	624
2001	.037	.137	.255	.334	.189	.041	.007	592
2002	.034	.134	.264	.353	.188	.025	.002	640
2003	.016	.140	.277	.346	.176	.042	.003	621
2004	.024	.099	.303	.368	.165	.041	.000	636
2005	.032	.100	.293	.367	.171	.032	.005	621
2006	.032	.116	.310	.310	.188	.039	.003	648
2007	.030	.119	.277	.373	.171	.024	.002	624
2008	.019	.091	.298	.402	.151	.038	.002	584
2009	.021	.112	.267	.386	.174	.037	.002	614
2010	.018	.086	.290	.394	.174	.030	.007	672
Average								
1990-94	.036	.140	.348	.328	.127	.020	.0003	3,429
1995-99	.035	.133	.304	.345	.159	.025	.0003	2,983
2000-04	.028	.125	.270	.356	.180	.038	.0026	3,113
2005-09	.027	.108	.290	.367	.172	.034	.0026	3,091
Δ ₃ %	-.009	-.032	-.058	+.039	+.045	+.014	+.0023	
	↓	↓	↓	↑	↑	↑	↑	

^a Source: Department of Health, Commonwealth of Pennsylvania
 $\Delta_3\%$: [2005-2009 average] – [1990-1994 average]

Table 5

Changes in Population Age Distribution for State College Area School District
Over the Past Decade Due to Migration vs Cohort Replacement¹:
2000 and 2010

	2000	Birth Years		2010	Birth Years		Δ Net Migration & Aging	Δ Cohort Replacement
<5	2969	1996-2000		3233	2006-2010			+264 (+9%)
5-9	3192	1991-95	EB ²	3069	2001-2005			-123 (-4%)
10-14	3350	1986-90	EB	3151	1996-2000		+182 (+6%)	-199 (-6%)
15-19	10175	1981-85	EB	12471	1991-95	EB	+9279 (+291%)	+2296 (+23%) EB
20-24	23884	1976-80	bb	29166	1986-90	EB	+25816 (+771%)	+5282 (+22%) EB
25-29	5688	1971-75	bb	6676	1981-85	EB	-3499 (-34%)	+988 (+17%) EB
30-34	4287	1966-70		4353	1976-80	bb	-19531 (-82%)	+66 (+2%) bb
35-39	4337	1961-65	BB	3581	1971-75	bb	-2107 (-37%)	-756 (-17%) bb
40-44	3998	1956-60	BB	3585	1966-70		-702 (-16%)	-413 (-10%)
45-49	3768	1951-55	BB	4101	1961-65	BB	-236 (-5%)	+333 (+9%) BB
50-54	3268	1946-50	BB	3989	1956-60	BB	-9 (-0.2%)	+721 (+22%) BB
55-59	2303	1941-45		3763	1951-55	BB	-5 (-1%)	+460 (+20%) BB
60-64	1901	1936-40	De	3042	1946-50	BB	-226 (-7%)	+1141 (+60%) BB
65-69	1748	1931-35	De	2155	1941-45		-148 (-6%)	+407 (+23%)
70-74	1575	1926-30		1797	1936-40	De	-104 (-5%)	+222 (+14%)
75-79	1323	1921-25		1518	1931-35	De	-230 (-13%)	+195 (+15%)
80-84	885	1916-20		1207	1926-30		-368 (-23%)	+322 (+36%)
85+	755	Pre-1916		1239	Pre-1926		-84 (-6%)	+484 (+64%)
Total	79406			92096				+12690 (+16%)

¹ Data Sources:

(1) 2000 and 2010: US Decennial Census

² EB: Echo Boom Cohort; BB: Baby Boom Cohort; bb: Baby Bust Cohort; De: Great Depression Cohort

Table 9A

**Overall Net Migration for the State College Area School District
Using Baseline “Replacement” of Grade 12 Students in Year t-1 by
Kindergarten/Additional Grade 1 Students in Year t: 1997-2011**

	A			B			C = A3+B3	D	E	F
	A1	A2	A3	B1	B2	B3				
	K_t	$G_{12,t-1}$	$K_t - G_{12,t-1}$	G_{1t}	K_{t-1}	$(G_{1t} - K_{t-1})$	Δ_1 without migration	Total Student Population _t	Δ_2^i	Net Migration ^a ($\Delta_2 - \Delta_1$)
t= 1997-98	497	471	+26	539	460	+79	+26 + 79 = +105	7366	+120	+15
1998-99	464	532	-68	556	497	+59	-68 + 59 = -9	7402	+36	+45
1999-00	401	504	-103	546	464	+82	-103 + 82 = -21	7364	-38	-17
2000-01	387	564	-177	492	401	+91	-177 + 91 = -86	7402	+38	+124
2001-02	412	615	-203	497	387	+110	-201 + 110 = -93	7429	+27	+120
2002-03	378	626	-248	500	412	+88	-248 + 88 = -160	7452	+23	+183
2003-04	402	645	-243	477	378	+99	-243 + 99 = -144	7316	-136	+8
2004-05	399	623	-224	473	402	+71	-224 + 71 = -153	7274	-42	+111
2005-06	476	630	-154	453	399	+54	-154 + 54 = -100	7323	+49	+149
2006-07	471	667	-196	509	476	+33	-196 + 33 = -163	7237	-86	+77
2007-08	431	659	-228	496	471	+25	-228 + 25 = -203	7121	-116	+87
2008-09	450	679	-229	501	431	+70	-229 + 70 = -159	7003	-118	+41
2009-10	469	611	-142	493	450	+43	-142 + 43 = -99	7063	+60	+159
2010-11	480	667	-187	500	469	+31	-187 + 31 = -156	6924	-139	+17
2011-12	443	604	-161	510	480	+30	-161 + 30 = -131	6918	-6	+125
Last 15 years: $\sum$ 1997-2011 (1997-2001)			-2537 (-525)			+965 (+421)	-1572 (-104)		-328 (+183)	+1244 (+287)
Last 10 years: $\sum$ 2002-2011 (2002-2006)			-2012(-1065)			+544 (+345)	-1468 (-720)		-511 (-192)	+957 (+528)
Last 5 years: $\sum$ 2007-2011			-947			+199	-748		-319	+429

ⁱ $\Delta_1 = K_t - G_{12,t-1} + (G_{1t} + K_{t-1})$, ie., assuming the counterfactual case of “what if” no one migrated; rather there was only G12 students exiting via graduation and K students entering as well as any additional G1 students entering beyond the prior year’s K enrollment. Thus the “net migration” pertains to year t-1.

ⁱ $\Delta_2 = \text{Student Population}_t - \text{Student Population}_{t-1}$; in 1997 the total student population was 7,246.

^a Net migration is $(\Delta_2 - \Delta_1)$ where Δ_2 is the change in actual or observed total students and Δ_1 is the counterfactual “what if” case depicting would happen to the total student population with no migration—in or out. Thus, the difference $(\Delta_2 - \Delta_1)$ is net migration.

Table 9D
"Net Migration" at the High School Level: 1997-2011

	G8 _{t-1}	G12 _{t-1}	Δ_1 without migration ¹	High School Student Population _t	Δ_2 ²	Net Migration ³
t= 1997-98	630	471	+159	2271	+148	-11
1998-99	598	532	+66	2335	+64	-2
1999-00	606	504	+102	2406	+71	-31
2000-01	607	564	+43	2473	+67	+24
2001-02	606	615	-9	2522	+49	+58
2002-03	633	626	+7	2601	+79	+72
2003-04	663	645	+18	2625	+24	+6
2004-05	634	623	+11	2679	+54	+43
2005-06	601	630	-29	2703	+24	+53
2006-07	626	667	-41	2671	-32	+9
2007-08	569	659	-90	2645	-26	+64
2008-09	552	679	-127	2505	-140	-13
2009-10	556	611	x-55	2537	+32	+87
2010-11	554	667	-113	2429	-108	+5
2011-12	529	604	-75	2393	-36	+39
Last 15 years: $\sum$ 1998-2012			-133 (+361)		+270 (+399)	+403 (+38)
Last 10 years: $\sum$ 2003-2012			-494 (-34)		-129 (+149)	+365 (+183)
Last 5 years: $\sum$ 2008-2012			-460		-278	+182

¹ $\Delta_1 = G8_t - G12_{t-1}$

² Δ_2 = High School Student Population_t - High School Student Population_{t-1}. in 1997 the high school student population was 2,123.

³ The basic equation for net migration is $(\Delta_2 - \Delta_1)$; that is, the actual change in the G8-G12 student population minus what it would have been without migration, i.e., replacing the G12 population at t-1 who graduate from High School by t with the new entrants at G9 in t and with all other grades having all students staying and moving up one grade. The difference $(\Delta_2 - \Delta_1)$ is the net migration that occurred.

Table 10A

**Evidence of Net Migration of Families with Preschool
Children by Municipality and Overall School District:
1995-2000 and 2005-2010¹**

2005-09			
Census Tract	Column A 2010 Census Children < 5 Yrs. Of Age	Column B Births 2005-09	Column C Net Migration (Preschoolers) Δ (A-B)
College Twp	453	432	+21 (+5%)
Ferguson Twp	948	889	+59 (+7%)
Half Moon Twp	119	110	+9 (+8%)
Harris Twp	254	237	+17 (+7%)
Patton Twp	682	654	+28 (+4%)
State College Boro	777	769	+8 (+1%)
TOTAL	3233	3091	+142 (+5%) +28 .4 ave/yr

1995-09			
Census Tract	Column A 2000 Census Children < 5 Yrs. Of Age	Column B Births 1995-99	Column C Net Migration (Preschoolers) Δ (A-B)
College Twp	404	459	-55 (-12%)
Ferguson Twp	860	684	+176 (+26%)
Half Moon Twp	191	174	+17 (+10%)
Harris Twp	257	237	+20 (+8%)
Patton Twp	560	543	+17 (+3%)
State College Boro	697	886	-189 (-21%)
TOTAL	2969	2983	-14 (-0.5%) -2.8 ave/yr

¹ Data Sources: (1) Column A: 2000 and 2010 US Census, (2) Column B: Pennsylvania Department of Health

Table 12

**State College Area School District
Retention Ratios 1999-2011¹
Four-Year Averages**

	1999-2002	2003-2006	2007-2011
K→G1	1.247	1.104	1.095
G1→G2	1.001	1.005	1.001
G2→G3	0.991	1.016	1.008
G3→G4	1.012	1.014	1.015
G4→G5	1.000	0.997	0.997
G5→G6	1.029	1.043	1.036
G6→G7	1.061	1.026	1.016
G7→G8	1.028	1.019	1.038
G8→G9	1.050	1.089	1.089
G9→G10	1.009	1.001	1.004
G10→G11	1.001	0.994	0.991
G11→G12	1.012	0.986	0.980
B _{t-5} →K _t	0.652	0.732	0.730

¹ Data for the retention ratios for 2007-2012 included the student populations for 2007-2011; data for the retention ratios for 2003-2006 included student populations for 2003-2007—the end of school year enrollment; data for the retention ratios for 1999-2002 included student populations for 1999-2003—the end of school year enrollment.

Four year averages for Birth at t-5 and Kindergarten enrollment at t, .e.g., the 2003-2006 header for B→K here refers to K in 2004-2007 and births from 1999-2002 while that for the 2007-2011 header refers to K in 2008-2011 and births from 2002-2006. We use a .75 x births in year t-5 plus a .25 x births in year t-6 to calculate the relevant births for the expected entry K cohort.

Table 12

**State College Area School District
Retention Ratios 1999-2011¹
Four-Year Averages**

	1999-2002	2003-2006	2007-2011
K→G1	1.247	1.104	1.095
G1→G2	1.001	1.005	1.001
G2→G3	0.991	1.016	1.008
G3→G4	1.012	1.014	1.015
G4→G5	1.000	0.997	0.997
G5→G6	1.029	1.043	1.036
G6→G7	1.061	1.026	1.016
G7→G8	1.028	1.019	1.038
G8→G9	1.050	1.089	1.089
G9→G10	1.009	1.001	1.004
G10→G11	1.001	0.994	0.991
G11→G12	1.012	0.986	0.980
B _{t-5} →K _t	0.652	0.732	0.730

¹ Data for the retention ratios for 2007-2012 included the student populations for 2007-2011; data for the retention ratios for 2003-2006 included student populations for 2003-2007—the end of school year enrollment; data for the retention ratios for 1999-2002 included student populations for 1999-2003—the end of school year enrollment.

Four year averages for Birth at t-5 and Kindergarten enrollment at t, .e.g., the 2003-2006 header for B→K here refers to K in 2004-2007 and births from 1999-2002 while that for the 2007-2011 header refers to K in 2008-2011 and births from 2002-2006. We use a .75 x births in year t-5 plus a .25 x births in year t-6 to calculate the relevant births for the expected entry K cohort.

Table 13A

Overall Alternative Schooling by Type of Alternative and
Educational Level: 2002-2011

School Year	Home Schooled			Parochial/Private School			Charter School			Overall		
	Elem	Sec	Total	Elem	Sec	Total	Elem	Sec	Total	Elem	Sec	Total
2002-03	87	92	179	553	58	611	98	37	135	738	187	925
2003-04	87	88	175	517	74	591	100	42	142	704	204	908
2004-05	92	96	188	519	77	596	96	26	122	707	295	1002
2005-06	80	100	180	427	98	525	206	40	246	713	238	951
2006-07	86	92	178	407	135	542	218	41	259	711	268	979
2007-08	86	102	188	406	146	552	210	42	252	653	252	905
2008-09	71	109	180	352	90	442	226	63	289	649	262	911
2009-10	77	103	180	374	86	460	211	67	278	662	256	918
2010-11	69	111	180	336	99	435	NA	NA	279			894
2011-12	67	108	175	408	123	531	NA	NA	305			1011
Δ1 (2009-10)-(2002-03)	-10	+11	+1	-179	+28	-151	+113	+30	+143	-76	+69	-7
Δ2 (2011-12)-(2002-03)	-20	+16	-4	-145	+65	-80			+170	-85	+65	-20

Table 17A

**State College Area School District Forecasts per Grade:
2013-2022 Fertility/Aging/Embedded Growth Scenario
[Scenario I]**

	K	G1	G2	G3	G4	G5	G6	Total K→G6	G7	G8	Total G7→G8	G9	G10	G11	G12	Ungraded	Total G9→G12	Total K→G12
2012	443	510	502	502	524	496	521	3498	517	510	1027	577	612	602	578	24	2393	6918
2013	434	485	510	506	510	518	514	3477	529	537	1066	555	579	606	590	24	2354	6897
2014	443	475	485	514	514	508	537	3476	522	549	1071	585	557	574	594	24	2334	6881
2015	480	485	475	489	522	512	526	3489	546	542	1088	598	587	552	563	24	2324	6901
2016	439	526	485	479	496	520	530	3475	534	567	1101	590	600	582	541	24	2337	6913
2017	447	481	526	489	486	495	539	3463	538	554	1092	617	592	595	570	24	2398	6953
2018	456	489	481	530	496	485	513	3450	548	558	1106	603	619	587	583	24	2416	6972
2019	456	499	489	485	538	495	502	3464	521	569	1090	608	605	613	575	24	2425	6979
2020	456	499	499	493	492	536	513	3488	510	541	1051	620	610	600	601	24	2455	6994
2021	456	499	499	503	500	491	555	3503	521	529	1050	589	622	605	588	24	2428	6981
2022	456	499	499	503	511	499	509	3476	564	541	1105	576	591	616	593	24	2400	6981

	2012	2017	2022	Δ2017-2012	Δ2022-2017	Δ2022-2012
K→G6	3498	3463	3476	-35	+13	-22 (-1%)
G7→G8	1027	1092	1105	+65	+13	+78 (+8%)
G9→G12	2393	2398	2400	+5	+2	+7 (0%)
Total	6918	6953	6981	+35	+28	+63 (+1%)

This scenario uses the following parameters: (1) Baseline four-year retention ratios (2007-2011), as shown in Table 12; (2) Birth at weighted t-5, t-6 to K enrollment ratio of .730; this is derived as follows: (a) a baseline weighted [(t-5 births x .75) + (t-6 x .25 births)] to K enrollment ratio was estimated using 2002-2006 births and 2009-2012 K enrollments. For years 2013-2016, observed births in the State College Area School District from 2007-2011 were used. For years 2017-2022, the average number of births from 2010-2011 was used (625); see Table 1. For 2017, the observed births in 2011 (x .25) and the 625 average births in 2010-2011 (x .75) were used. The total high school enrollment includes 24 ungraded students for all years—the same as in 2012.

Table 22A

Comparison of Projected and Actual Student Populations in 2011-12 and
Predictive Accuracy Overall and By Level¹

Scenario IV	Initial 2007 School Population	P 2011 Projected Population	O 2012 Actual (Observed) Population	ΔP Projected Change	ΔO Actual (Observed) Change	(P-O)	Percentage of Accuracy [†]
Elementary	3389	3578	3498	+189	+109	+80	97.7
Middle	1087	1047	1027	-40	-60	+20	98.0
Sr. High	2626	2382	2369	-244	-257	+13	99.4
Total	7121	7026	6918	-95	-203	+108	98.4

Scenario III	Initial 2007 School Population	P 2011 Projected Population	O 2012 Actual (Observed) Population	ΔP Projected Change	ΔO Actual (Observed) Change	(P-O)	Percentage of Accuracy [†]
Elementary	3389	3542	3498	+153	+109	+44	98.7
Middle	1087	1033	1027	-54	-60	+6	99.4
Sr. High	2626	2353	2369	-273	-257	-16	99.3
Total	7121	6947	6918	-174	-203	+29	99.6

¹ Scenario IV has an additional direct housing impact; Scenario III has embedded housing effect with no additional housing impact from growth in housing

[†] $1 - |(P-O/O)|$