

DISTRICT WIDE FACILITY STUDY

FOR THE



QUAKER VALLEY SCHOOL DISTRICT

March 5, 2015



301 north mercer street
new castle, pa 16101
p 724-652-5507
f 724-652-0751

www.ecklesgroup.com
founded 1898

COPYRIGHT 2015, Eckles Architecture & Engineering
Duplication or use, in whole or in part, in any manner or means is expressly prohibited
without permission of Eckles Architecture & Engineering, Inc

QUAKER VALLEY SCHOOL DISTRICT

Table of Contents

Table of Contents
Forward
Credits
Need for the Study
District Wide Facility Study Certification



PART I – INTRODUCTION

FACILITY STUDY PROCESS

DISTRICT OVERVIEW

District Background

Community

Schools

Educational Program

District Maps

District Enrollment

Enrollment Projections (PA Dept. of Education)

Demographic Study

Fiscal Outlook

STUDY OBJECTIVES

PART II – DISTRICT FACILITIES

GENERAL

DISTRICT OFFICE

EDGEWORTH ELEMENTARY SCHOOL

OSBORNE ELEMENTARY SCHOOL

QUAKER VALLEY MIDDLE SCHOOL

QUAKER VALLEY HIGH SCHOOL

ATHLETIC FACILITIES

PART III – OPTIONS

PRIORITIES/GOALS

OPTIONS

OPTION SUMMARY

PART IV – RECOMMENDATIONS

SELECTED OPTIONS

QUAKER VALLEY SCHOOL DISTRICT

EXHIBITS

EXHIBIT A

AUTHORS' CREDENTIALS

EXHIBIT B

- B1 Quaker Valley SD, DISTRICT LEVEL PLAN, 07/01/2013 – 06/30/2016
- B2 Quaker Valley High School, PROGRAM OF STUDIES 2014-15
- B3 Quaker Valley Middle School, PROGRAM OF STUDIES 2013-14

EXHIBIT C

DEMOGRAPHIC STUDY, Stewman Demographics, October 23, 2010

EXHIBIT D

HIGH SCHOOL FOOD SERVICE ASSESSMENT, McFarland Kistler & Assoc., Inc.
HIGH SCHOOL HVAC ASSESSMENT, Eckles Architecture & Engineering
HIGH SCHOOL PLUMBING & FIRE PROTECTION ASSESSMENT, Eckles Architecture
& Engineering
HIGH SCHOOL ELECTRICAL ASSESSMENT, Eckles Architecture & Engineering
ENERGY PORTFOLIO SURVEYS- EXISTING BUILDINGS, Eckles Architecture &
Engineering

EXHIBIT E

EDUCATIONAL PROGRAMMING

EXHIBIT F

EXISTING SITE ANALYSIS

QUAKER VALLEY SCHOOL DISTRICT

Forward



What is desirable?

If you are a parent you will expect a quality education for your child.

If you are a student you will want a learning environment that can motivate.

If you are a teacher you will require efficient facilities and instructional materials with which you work.

If you are a school director or an administrator you will strive for the proper balance of these needs, knowing that varying and often conflicting priorities make the complete fulfillment of all seldom possible.

What is possible?

With good planning and unlimited resources, almost anything can be accomplished. As the resources become more limited, planning becomes more important. Planning calls for information that will enable us to evaluate both goals and resources to determine what is practical.

What is practical?

It is the need to develop a logical and reasonable plan to house the educational program of the Quaker Valley School District that prompts this study.

QUAKER VALLEY SCHOOL DISTRICT

Credits



BOARD OF DIRECTORS

Ms. Sarah Heres, President
Mr. Robert Riker, Vice-President
Mr. Gianni Floro
Ms. Daniela Helkowski
Mr. Jonathan Kuzma
Mr. David Pusiteri
Mr. Mark Rodgers
Ms. Marianne Wagner
Mr. Jeffrey Watters
Mr. Pat Clair, District Solicitor

DISTRICT OFFICE ADMINISTRATION

<i>Dr. Heidi Ondek</i>	<i>Superintendent of Schools</i>
<i>Andrew Surloff</i>	<i>Assistant Superintendent</i>
<i>Dr. Sally Hoover</i>	<i>Director of Pupil Services</i>
<i>Leah Wells</i>	<i>Assistant to Director of Pupil Services / School Psychologist</i>
<i>Dr. Joseph Marrone</i>	<i>Director of Administrative Services</i>
<i>John Sheline</i>	<i>Director of Operations & Finance / Board Secretary</i>
<i>Jennifer Tressler</i>	<i>Assistant Director of Finance</i>
<i>Karlton Chapman</i>	<i>Director of Technology</i>
<i>Jennifer Reiser</i>	<i>Director of Food Services</i>
<i>Angela Yingling</i>	<i>Director of Communications</i>
<i>Diane Hess</i>	<i>Student Information Specialist</i>
<i>Stefanie McKissic</i>	<i>Human Resources Specialist</i>
<i>Michael Mastroianni</i>	<i>Director of Athletics & Student Activities</i>
<i>John Demkowicz</i>	<i>Transportation Manager</i>

SCHOOL ADMINISTRATION

<i>Dr. Susan Gentile</i>	<i>Edgeworth Elementary Interim Principal</i>
<i>Dr. Barbara Mellett</i>	<i>Osborne Elementary Principal</i>
<i>Anthony Mooney</i>	<i>Middle School Principal</i>
<i>Adrienne Floro</i>	<i>Middle School Assistant Principal / District Assessment Coordinator</i>
<i>Deborah Riccobelli</i>	<i>High School Principal</i>
<i>Dr. John Bornyas</i>	<i>Interim High School Assistant Principal</i>
<i>John Tortorea</i>	<i>High School Dean of Student Discipline</i>
<i>Kelly Frank</i>	<i>High School Director of Collegiate Affairs</i>

QUAKER VALLEY SCHOOL DISTRICT

Need for the Study



School districts must develop a complete building facility study of all district educational facilities including the district administration office. The study must be completed prior to, and within two years of the date of the PlanCon Part A, Project Justification, submission. The study must provide an appraisal as to each facility's ability to meet current and planned educational program requirements. Facility studies must contain documentation regarding the author's credentials for producing the document.

From the Basic Education Circular (BEC) 24 p.s. 7-733 "School Construction Reimbursement Criteria" which explains that a district-wide facility study is a condition for state reimbursement.

The following elements must be included in the District-wide facility study:

An overview of the school district that considers such factors as geography, population, wealth. Are there any distinguishing characteristics that will have an impact on facilities such as geographically separate population centers?

An overview of the school district's educational program that highlights any special facilities needs. Are there instructional practices or planned curriculums that will require special design features?

An analysis of projected enrollment. What is likely enrollment for each grade structure? Are projections five to ten years into the future reasonable and reliable? Is there a predictable growth potential in certain areas of the district? It is not sufficient to base construction plans on PDE's "current enrollment plus 10 percent." The "10 percent rule" is to be used solely for reimbursement.

An analysis of each building's capacity as it relates to the educational program. One must ask not only how many students can a building house, but if each building provides the types of educational spaces dictated by the educational program. Factors such as the length of the school day, number of classes per day, grade alignments, size of particular rooms and adequacy of those rooms will affect capacity.

An analysis of each building's physical condition. What is the condition and projected useful life of each building's major components (heating, HVAC, plumbing, etc.)? Are there code violations? Is the building accessible? Is the building structurally sound? Is the building energy efficient? What will it cost to upgrade each building to current standards?

An analysis of construction options. What choices does the district have considering the above analysis? What are the pros and cons of each alternative?

Cost estimates for each option.

A summary depicting buildings, options and costs.

Documentation regarding the authors' credentials. What education, registration or licensure and experience qualify the authors to perform the study?

QUAKER VALLEY SCHOOL DISTRICT

Pennsylvania Department of Education
District Wide Facility Study Certification
 (Dated 07/2010)

DISTRICT-WIDE FACILITY STUDY CERTIFICATION		
District/CTC:	Project Name:	Grades: _____
<p>The Board of Directors certifies that it has accepted a district-wide facility study pursuant to Basic Education Circular (BEC) 24 P.S. § 7-733, "School Construction Reimbursement Criteria,". At least two copies of the study will be available for public inspection throughout the PlanCon process for this project at</p> <hr/> <p>(Building or location where facility study will be available for public review)</p> <p>The district-wide facility study must have been completed <u>within</u> the preceding two years of the Department's receipt of the Part A submittal for this project building.</p> <p>The completion date of the district-wide facility study is: _____ <small>(mm/dd/yyyy)</small></p> <p>The authors are: _____ <small>(INCLUDE NAME, POSITION, SCHOOL DISTRICT OR FIRM NAME & ADDRESS)</small></p> <p>_____ <small>(INCLUDE NAME, POSITION, SCHOOL DISTRICT OR FIRM NAME & ADDRESS)</small></p> <p>The following information summarizes the nature and contents of the study.</p> <p><u>STUDY PAGE(S)</u></p> <p>_____ 1. An overview of the school district that considers such factors as geography, population, wealth. The overview must include:</p> <ul style="list-style-type: none"> - population and wealth statistics - a map showing the general location of the school district in the state or geographic region - a map of the school district showing the general location of all existing buildings and owned sites in the school district - information on any distinguishing characteristics, such as geographically separate population centers, that will have an impact on facilities <p>_____ 2. An overview of the school district's educational program. The overview must address for <u>all grades (K-12)</u>:</p> <ul style="list-style-type: none"> - instructional practices or planned curriculums by grade structure (elementary, middle, secondary, etc.) - special facility needs, if applicable, needed to support planned curriculums <p>_____ 3. An analysis of projected enrollment. The analysis must include:</p> <ul style="list-style-type: none"> - the likely enrollment for each grade structure ten years into the future - a discussion of the reliability of the enrollment projections <p>_____ 4. An analysis of each building's capacity as it relates to the educational program. The analysis must address:</p> <ul style="list-style-type: none"> - how many students a building can house - the types of educational spaces required by the educational program described above - length of the school day and number of classes per day, if applicable - size of particular rooms and adequacy of those rooms, if applicable - grade alignments <p>_____ 5. An analysis of <u>each</u> building's condition. The analysis must address:</p> <ul style="list-style-type: none"> - the building's physical condition - the projected useful life of each building's major components (electrical, HVAC, plumbing, etc.) - code violations - universal accessibility - Energy Portfolio Surveys (See Attachment C in Part A Instructions.) - the cost to upgrade <u>each</u> building to current standards <p>_____ 6. An analysis of construction options. The analysis must address:</p> <ul style="list-style-type: none"> - the alternatives available to the district based on the above analysis - cost estimates for each alternative - the pros and cons for each alternative - a summary page depicting options and costs - Energy Portfolio Surveys (See Attachment C in Part A Instructions.) <p>_____ 7. Documentation regarding the author's credentials including education, registration or licensure and experience for each author</p>		

REVISED JULY 1, 2010

FORM EXPIRES 6-30-12

PLANCON-A23

QUAKER VALLEY SCHOOL DISTRICT

PART I - INTRODUCTION

FACILITY STUDY PROCESS

DISTRICT INFORMATION

District Background

Community
Schools
Program

District Map

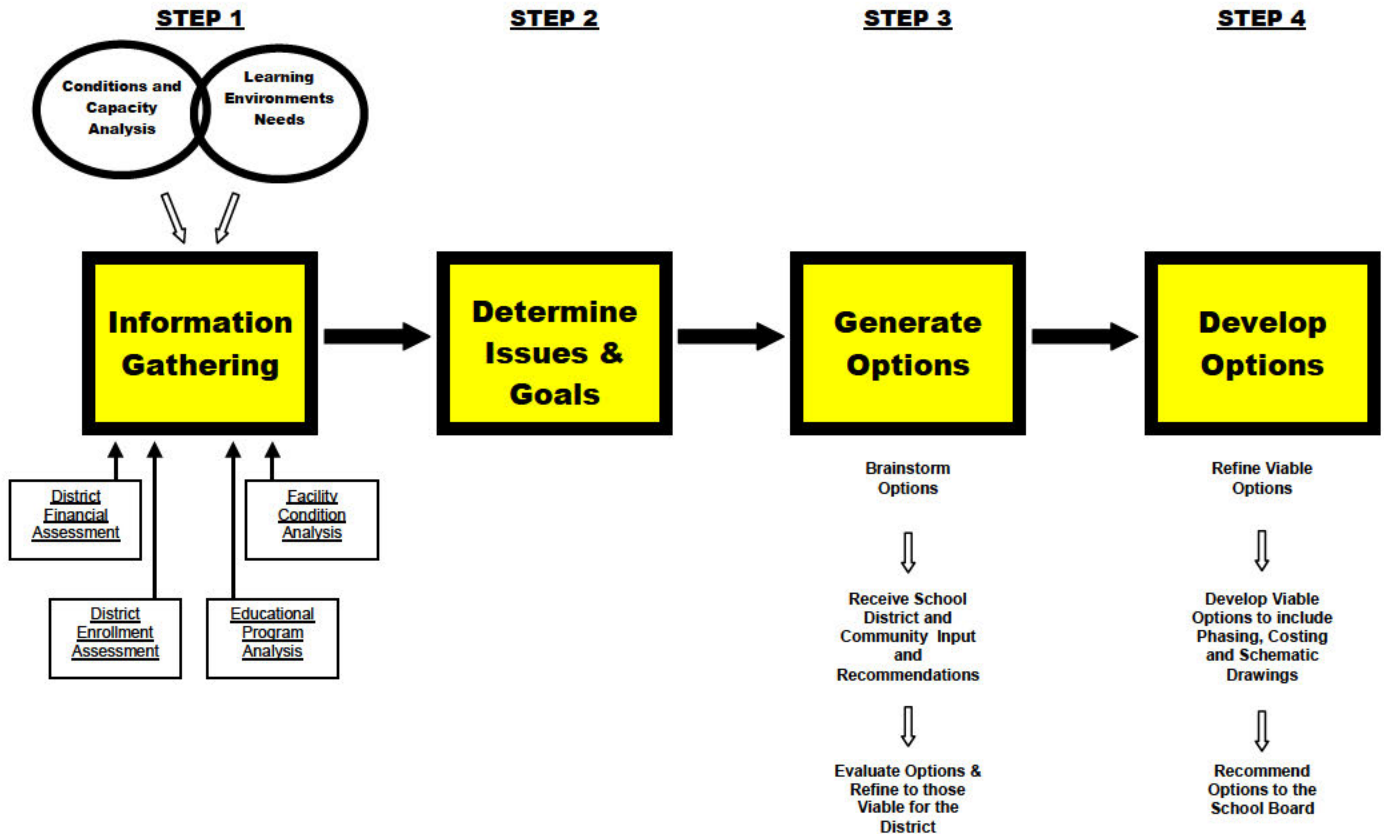
District Enrollment

Fiscal Outlook

OBJECTIVES OF THE STUDY

QUAKER VALLEY SCHOOL DISTRICT

FACILITY STUDY PROCESS



QUAKER VALLEY SCHOOL DISTRICT

DISTRICT INFORMATION

Note: Numerous excerpts taken from the QVSD website, www.qvsd.org

District Background

Community

The Quaker Valley School District was formed in 1956 by consolidating of 10 adjoining districts. The district, now comprising approximately 24.2 square miles, is located in western Pennsylvania along the banks of the Ohio River. Located approximately 12 miles northwest of Pittsburgh in western Allegheny County, the district is comprised of 11 municipalities; the boroughs of Sewickley, Leetsdale, Edgeworth, Osborne, Sewickley Hills, Sewickley Heights, Bell Acres, Haysville, and Glenfield, and the Townships of Leet and Aleppo. As of 2010 census the population of the District was 13,934. Residents have convenient access to major highways and the Pittsburgh International Airport.

The primary population and commercial centers of the district are along the communities adjacent to the river. The hills rising above the river are largely suburban residential. Sewickley, the geographic focus of the District, was once home to riverboat captains. Also in the area lived captains of industry, including many who built the corporations of Pittsburgh's legendary steel industry. In the early days, other residents included the caretakers of the estates of the wealthy, merchants, and mill workers. Today, descendants of these populations form the core society of Quaker Valley, one that is wide in its range of differences, yet united in support of quality educational opportunities for its children and in its strong value system. The community is diverse, including various ethnic, racial and socioeconomic populations. The stable population includes third and fourth generation Quaker Valley families, as well as those who have come not only from other states, but also from other countries. The diversity is embraced as an opportunity for cultural understanding and exchange. The schools mirror the cohesive, small-town atmosphere of the community they serve.

Schools

Quaker Valley School District is comprised of four National Blue Ribbon Schools that serve nearly 2,000 students from 11 municipalities. The schools are staffed by outstanding teachers who genuinely care about their students and each child's academic, social and emotional growth.

The schools include:

- Edgeworth Elementary School, Edgeworth Borough
- Osborne Elementary School, Osborne Borough
- Quaker Valley Middle School, Sewickley Borough
- Quaker Valley High School, Leetsdale Borough

The greatest distance between schools is a mere 3.1 miles, from Osborne Elementary to Quaker Valley High School on opposite ends of Beaver Street.

QUAKER VALLEY SCHOOL DISTRICT

The schools are community assets. During non-school hours, the facilities and fields are heavily used by residents, community groups and organizations for meetings, programming and activities. It is not unusual for a school to accommodate a borough council meeting, Brownie troop activity, and a youth basketball team after hours on the same day.

Parent and community support is integral to the success of not only the individual students but also to the success of the programs and activities at each building level. The schools welcome and thrive on the volunteer support of parent groups, booster groups, and senior citizens.

The small size allows the district to personalize instruction at every building level and provide comprehensive curriculum, co-curriculum, programs and activities that serve our students' needs and prepare them as they progress from the elementary, middle and high school curriculum on to college and careers.

The district is relatively small with a reputation for quality. School and class sizes allow for a personal approach to instruction. Quaker Valley recognizes that it takes a cumulative experience of excellence to produce students who will be internationally competitive. To that end, an innovative curriculum challenges all students to excel as independent thinkers and learners, and gives each the support and incentive to do so successfully. The Quaker Valley School District has attained recognition with numerous awards and honors, below is a listing of some of the many notable achievements.

All four of the Quaker Valley schools are designated National Blue Ribbon Schools of Excellence.

In 2014 the *Pittsburgh Business Times Guide to Western Pennsylvania Schools* ranked Quaker Valley School District 8th out of 105 public schools in Western Pennsylvania and 23rd in the state based on three consecutive years of PSSA standardized test scores. Quaker Valley has ranked in the top 10 for the last ten consecutive years.

In 2013, *U.S. News and World Report's* ranking of the best public schools in America placed Quaker Valley High School at 14th among Pennsylvania's 687 high schools and 645th out of the more than 21,000 public high schools nationwide based on overall student performance on state tests, AP tests, and International Baccalaureate exams as well as how they educate black, Hispanic, and economically disadvantaged students.

In 2014, the *Washington Post* listed Quaker Valley High School as one of only 33 schools in Pennsylvania and 7 in Allegheny County among America's Most Challenging High Schools.

2014 marked the tenth consecutive year the National Association of Music Makers (NAMM) named Quaker Valley one of the "Best Communities for Music Education" in America.

All elementary and middle school students are engaged in the study of fine arts. 76% of Quaker Valley High School students continue to study and participate in some form of fine arts ~ the graphic and visual arts as well as the choral, orchestral, instrumental and theatrical arts – all through a variety of coursework and co-curricular enrichment.

QUAKER VALLEY SCHOOL DISTRICT

Computers and technology are used as tools to enhance and facilitate learning and assessment. In addition to providing computer instruction and at least one computer lab in each building, every high school student is issued a laptop as a freshman for use at school and home for their four years at QVHS; middle school students are assigned a laptop for use while at school; and computer carts equipped with laptops are available to elementary teachers so that each child has access to a laptop during a class period if needed to support the lesson or curriculum unit.

Program

The Pennsylvania Department of Education has adopted the Standards-Aligned System (SAS). This is a comprehensive approach to support student achievement across the Commonwealth. The curriculum framework specifies what is to be taught for each subject in the curriculum. In Pennsylvania, curriculum frameworks include Big Ideas, Concepts, Competencies, and Essential Questions aligned to the Standards and Assessment Anchors and, where appropriate, Eligible Content.

On July 1, 2010, the Pennsylvania State Board of Education adopted the Common Core State Standards in English/Language Arts (ELA) and mathematics, making Pennsylvania the 18th state to do so. The Pennsylvania State Board of Education has identified a strong alignment between Common Core State Standards and the Pennsylvania Standards.

Below are definitions for the Standards-Aligned System Curriculum Framework:

- **Big Ideas:** Declarative statements that describe concepts that transcend grade levels. Big Ideas are essential to provide focus on specific content for all students.
- **Concepts:** Describe what students should know (key knowledge) as a result of this instruction specific to grade level.
- **Competencies:** Describe what students should be able to do (key skills) as a result of this instruction, specific to grade level.
- **Essential Questions:** Questions connected to the SAS framework and are specifically linked to the Big Ideas. They should frame student inquiry, promote critical thinking, and assist in learning transfer.

The arts are integral to the Quaker Valley's curricular and co-curricular programs. Ongoing educational research continues to report the positive correlation between participation in the arts and success in school, work and life. In an effort to develop well-rounded students and creative thinkers the arts are priority throughout the Quaker Valley School District.

District art exhibits musicals and dramas, as well as choral and instrumental concerts are favorites with parents and the community. Our arts faculty collaborates to find different venues and opportunities to showcase and support students' talents.

Quaker Valley's athletic program is an integral part of the total educational experience. Research demonstrates that participation in extracurricular athletics and activities is associated with higher academic achievement. More than 60 percent of our high school students participate in at least one of our 14 different interscholastic programs.

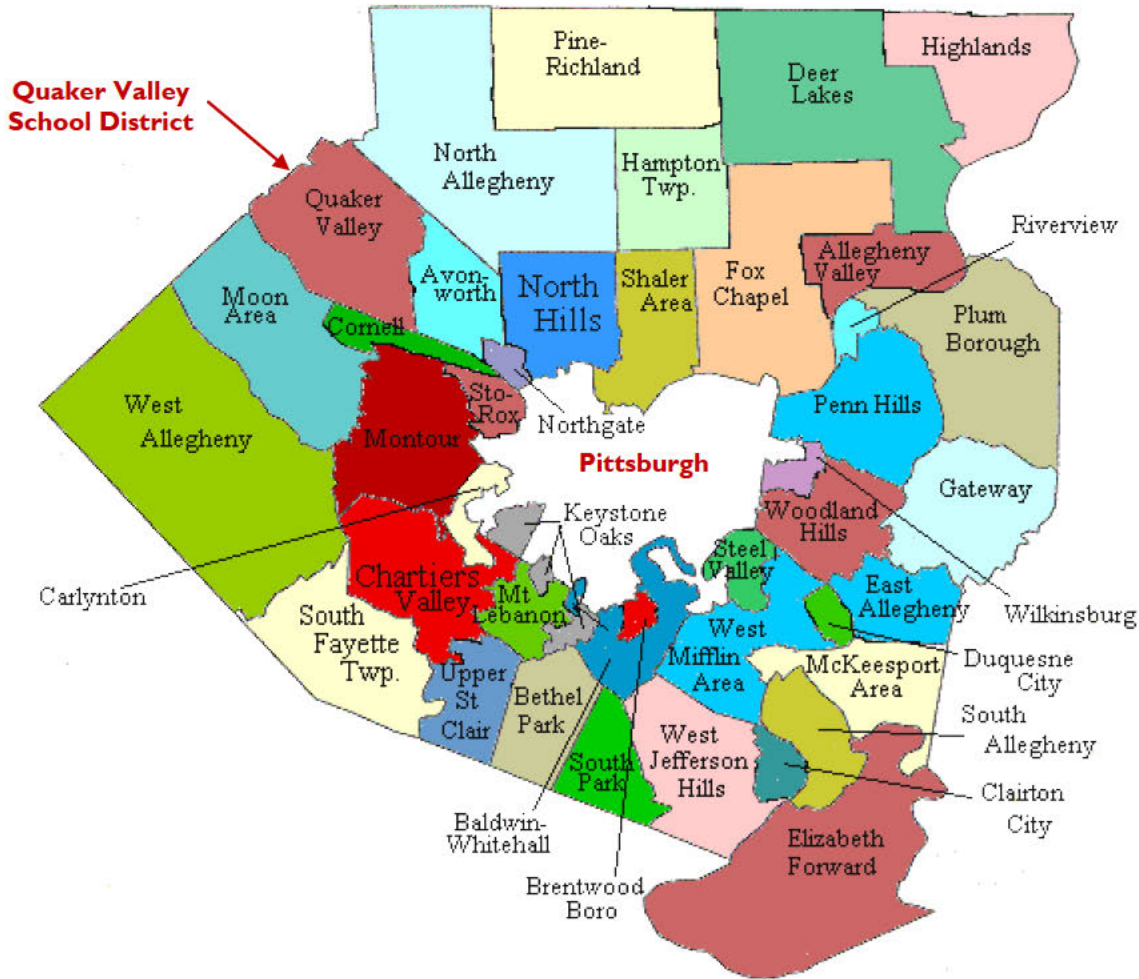
QUAKER VALLEY SCHOOL DISTRICT

Throughout the years, Quaker Valley athletes have celebrated both individual and team successes ~ consistently placing in the district, state and national rankings.

Quaker Valley believes in high standards and expectations. Therefore, personal conduct and academic achievement are integral to participation and success in the athletic arena. Staff members consistently monitor the progress of the student athletes in order to assist them in maximizing their ability to succeed both academically and athletically.

QUAKER VALLEY SCHOOL DISTRICT

Allegheny County School District Map

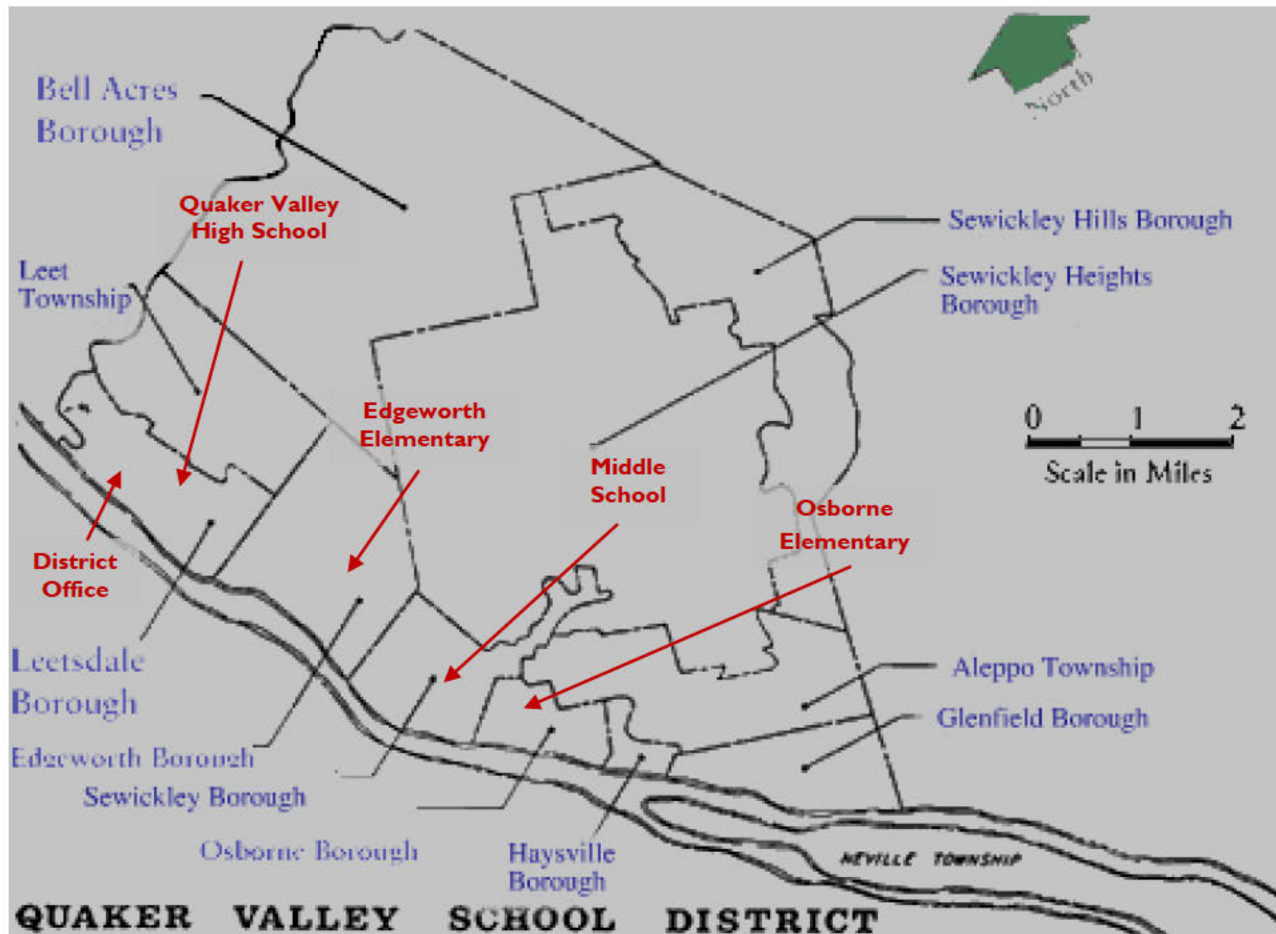


Allegheny County School Districts

The Quaker Valley School District is in western Allegheny County, in southwestern Pennsylvania. The District is located along the Ohio River 12 miles northwest of Pittsburgh.

QUAKER VALLEY SCHOOL DISTRICT

Quaker Valley School District Map



Quaker Valley School District

The Quaker Valley School District covers 24.2 square miles and includes the 11 municipalities as noted on the map. The District is comprised of four school buildings and the district office. Elementary schools are located in Edgeworth Borough and Osborne Borough. The Middle School is in Sewickley Borough. Both the High School and the District Office are located in Leetsdale Borough.

QUAKER VALLEY SCHOOL DISTRICT

District Enrollment

Anticipation of the student population is critical to the planning of the entire educational process. Enrollment projections have been and will continue to be the most important planning tool for the administrators. Without them, adequate preparations for curriculum, staff assignments, transportation, operation, and budget cannot be made.

Five year projections have been customary for the year to year operating decisions. Longer projections require periodic updating to adjust for interim fluctuations and maintain reasonable accuracy. While the longer projections are more vulnerable to unforeseen events and circumstances, they are necessary to evaluate any commitment to a building program that could affect the district for the next 20 to 30 years. The Department of Education is currently requiring enrollment projection data by grades for 10 years hence.

Most population estimates are based on recent history or “trends”. Extrapolation of these trends then produces an expected future progression. Modifications to account for conditions that can effect migration or birth rate might refine the results but there are limitations (which increase with the length of the forecast) to any of the accepted methods.

The enrollment projection model used by the Pennsylvania Department of Education is based on the “retention” theory that students’ historical progression to the next grade is influenced by factors that will continue in the future. See the following pages for current enrollment and current PDE Enrollment Projects. Quaker Valley School District administration believes that these projections are reflective of actual enrollment trends in the district, and have been close to actual enrollment numbers.

These projections however, have limitations since they do not recognize any change in the internal or external factors that could disrupt historical trends. With an interest in examining other factors, which might affect population trends within the District, a Demographic Study reflecting population projections was prepared by Shelby Stewman of Stewman Demographics.

QUAKER VALLEY SCHOOL DISTRICT

Quaker Valley Generated Statistics
Current Enrollment by School
 (2014/2015)

	Edgeworth	Osborne	Middle School	High School	<u>TOTALS</u>
ELEMENTARY					
Kindergarten	119	0			119
Grade 1	87	43			130
Grade 2	65	61			126
Grade 3	85	62			147
Grade 4	69	78			147
Grade 5	81	60			141
SUBTOTAL Elementary Grades					810
MIDDLE SCHOOL					
Grade 6			175		175
Grade 7			150		150
Grade 8			157		157
SUBTOTAL Middle School Grades					484
HIGH SCHOOL					
Grade 9				142	142
Grade 10				162	162
Grade 11				176	176
Grade 12				134	134
SUBTOTAL High School Grades					616
TOTAL (by School)	460	360	484	616	1920
Other					20
<u>DISTRICT TOTALS</u>					1940

QUAKER VALLEY SCHOOL DISTRICT

Pennsylvania Department of Education, Enrollment Projections

(Dated 07/2012 Note: PDE has not updated enrollment projections since 2012 due to PlanCon Moratorium)

Revised 7/2012 (2011 Enrollments)

Enrollment Projections
Prepared by the Pennsylvania Department of Education
(717) 767-2644

YEAR	Quaker Valley SD												Total	
	K	1	2	3	4	5	6	7	8	9	10	11		12
2007-2008	112	151	140	133	115	149	173	156	160	151	159	124	153	1876
2008-2009	126	126	160	147	146	127	160	170	145	173	153	159	134	1926
2009-2010	121	143	134	173	155	154	132	165	180	149	178	149	158	1991
2010-2011	111	142	141	137	172	147	155	139	164	161	136	173	153	1951
2011-2012	118	126	145	143	137	172	163	152	137	163	179	138	180	1943
P R O J E C T I O N S														
2012-2013	114	117	130	151	148	137	179	155	151	136	161	177	143	1899
2013-2014	113	123	121	135	157	148	142	181	154	150	134	159	183	1900
2014-2015	89	122	127	126	140	157	154	144	160	153	140	133	165	1846
2015-2016	107	107	126	132	131	140	163	156	143	179	151	147	138	1820
2016-2017	106	116	110	131	137	131	146	165	155	142	176	150	152	1817
2017-2018	105	115	120	115	136	137	138	148	164	154	140	174	155	1755
2018-2019	104	114	119	125	119	136	142	138	147	163	152	139	180	1776
2019-2020	104	113	118	124	130	119	141	144	137	146	161	150	144	1721
2020-2021	103	112	117	123	129	130	124	143	143	136	144	159	155	1716
2021-2022	102	111	116	122	126	129	135	125	142	142	134	143	165	1664

Various Grade Groupings of the Enrollment Projections

YEAR	K-4	K-5	K-6	K-7	K-8	K-9	K-12	S-8	6-6	7-8	6-9	7-9	7-12	8-12	9-12	0-12
2011-2012	669	841	994	1146	1283	1446	1943	614	442	289	605	452	949	797	660	497
2016-2017	600	731	877	1042	1197	1339	1817	597	466	320	806	462	940	775	620	478
2021-2022	579	708	843	968	1110	1252	1684	531	402	267	544	409	851	726	584	442
2011-2012 to 2021-2022																
Change	-90	-133	-151	-178	-173	-194	-249	-83	-40	-22	61	-43	98	-71	-76	-55
Percent	-13.5	-15.8	-15.2	-15.5	-13.5	-13.4	-12.8	-13.5	-9.0	-7.6	-10.1	-9.5	-10.3	-8.8	-11.5	-11.1

- Notes:
- Excludes students in full-time out-of-district special education, comprehensive AVTSs, charter schools, state-owned schools, consortium-operated alternative high schools, and juvenile correctional institutions.
 - Enrollment projections beyond five years are subject to errors in the lower grades resulting from inconsistencies between actual and projected live births and should be reviewed closely.
 - Four year old kindergarten students, if any, added to K enrollments.
 - Elementary and secondary ungraded students were distributed among the grades. Therefore, enrollments by grade may differ from those reported by the local education agencies.
- Sources:
- Public School Enrollment Report (ESPE) and Pennsylvania Information Management System (PIMS)
 - Resident Live Birth file 2010, supplied by the Division of Health Statistics, Pennsylvania Department of Health. The Department of Health specifically disclaims responsibility for any analysis, interpretations or conclusions.

Projected Ten-year Enrollment Trends

Elementary School (K-5)

Current Enrollment (2011/12)	797		
Projected Enrollment (2021/22)	708		
Anticipated Change	-133	Percent Growth/Decline (%)	-15.8%

Middle School (6-8)

Current Enrollment (2011/12)	442		
Projected Enrollment (2021/22)	402		
Anticipated Change	-40	Percent Growth (%)	-9.0%

High School (9-12)

Current Enrollment (2011/12)	660		
Projected Enrollment (2021/22)	584		
Anticipated Change	-76	Percent Growth (%)	-11.5%

QUAKER VALLEY SCHOOL DISTRICT

Shelby Stewman, Stewman Demographics',
Demographic Study Excerpts

See the September 15, 2015 Demographic Study

*QVSD.org/District/Blueprint QV: New High School Project/Research
and Studies/Demographic School Analysis - Population Projections for
the Quaker Valley School District*

QUAKER VALLEY SCHOOL DISTRICT

Fiscal Outlook

See the June 9, 2020 Finance Presentation.

QVSD.org/District/Blueprint QV: New High School Project/Research and Studies/Finance Presentation - New HS Prospective Funding Plan Scenarios

QUAKER VALLEY SCHOOL DISTRICT

OBJECTIVES OF THE STUDY

The objective of the study is to gather, analyze, evaluate, and document information that will enable Quaker Valley School District School Board, Administrators, and Staff to make informed value decisions concerning potential improvements to the elementary schools, middle school, high school, and district office. This is a comprehensive study that assesses the existing conditions of the buildings and sites, analyzes the capacity of the buildings, evaluates the current and planned educational programs, and defines options and associated costs for the potential improvements.

The elementary schools were made like new with comprehensive additions and alterations completed in 2005 & 2006 and have been very well maintained over the last decade. The district has recently addressed their facility needs at the middle school building with a comprehensive renovations and additions project completed in 2013. The high school has seen selective upgrades over the years and has been fairly well maintained, however, due to the age of the building, both infrastructure and educational program updates are needed. Program limitations, health and wellness mandates, after school programs, increased participation in fine arts, increased enrollment, and ever-changing technology, indicate the high school facilities are or will be inadequate.

This study will focus primarily on the district's needs at the High School level by evaluating the School Facilities, the Anticipated Enrollment, the Educational Program, the site utilization options, and the Budget. The study will look beyond the needs of the current high school grades by recognizing the impact of future population changes, educational trends, and community utilization. This study will also evaluate other Administrative, Athletic, or Maintenance facilities and identify immediate & future development needs.

QUAKER VALLEY SCHOOL DISTRICT

PART II – DISTRICT FACILITIES

GENERAL

District Facilities Map

DISTRICT ADMINISTRATION OFFICE

District Offices

EDGEWORTH ELEMENTARY SCHOOL

Facility Profile

Existing Building Utilization

Existing Conditions Analysis

OSBORNE ELEMENTARY SCHOOL

Facility Profile

Existing Building Utilization

Existing Conditions Analysis

QUAKER VALLEY MIDDLE SCHOOL

Facility Profile

Existing Building Utilization

Existing Conditions Analysis

QUAKER VALLEY HIGH SCHOOL

Facility Profile

Existing Building Utilization

Existing Conditions Analysis

ATHLETIC FACILITIES

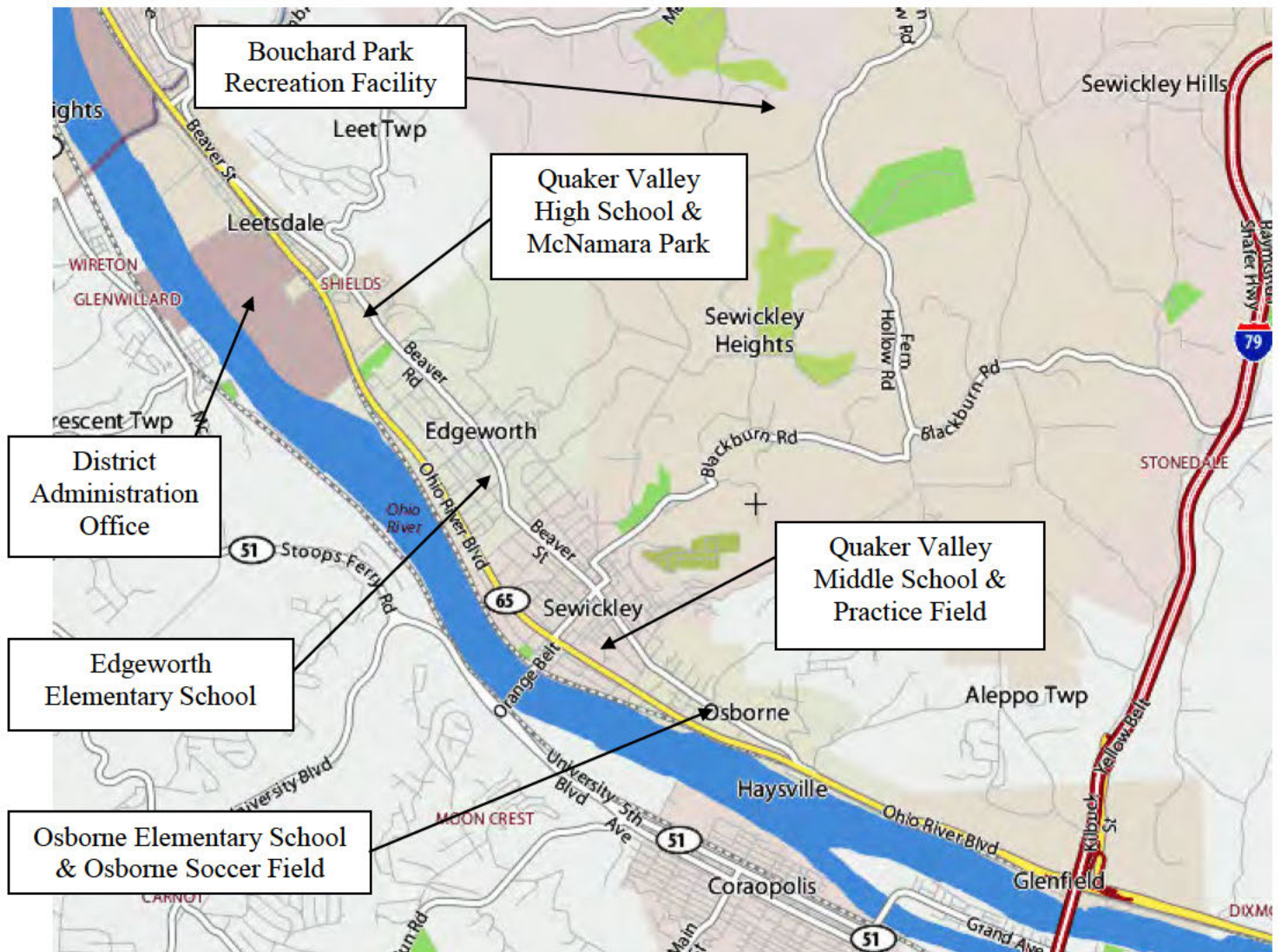


QUAKER VALLEY SCHOOL DISTRICT

DISTRICT FACILITIES MAP

District Facilities Map

All Quaker Valley School District facilities, consisting of a district office and 4 schools, are located within the major population centers located in the communities paralleling the Ohio River. The 4 schools are either on or adjacent to the main community thoroughfare known as Beaver Street (also known as Beaver Road). Each of the school buildings are located in different municipalities. The High School is in Leetsdale Borough, the Middle School is in Sewickley Borough, the Edgeworth Elementary School is in Edgeworth Borough and the Osborne Elementary School is in Osborne Borough. The District Office is located in Leetsdale Borough within the Leetsdale Industrial Park.



QUAKER VALLEY SCHOOL DISTRICT

Existing Conditions Analysis

DISTRICT ADMINISTRATION OFFICES

GENERAL

In the summer of 2010, the District Administration Offices (DAO) moved from their long time location in the Middle School building to their current location in the Leetsdale Industrial Park. The move was facilitated to provide needed space for both the Middle School programs and District Office functions.

The DAO site, centrally located near the District population center, is easily accessed via a dedicated ramp and overpass from nearby Pennsylvania Route 65 to the Leetsdale Industrial Park. Once inside the Park, appropriate street signage has been placed to enable visitors to conveniently locate the facility. Adjacent to the main DAO entrance is significant parking to accommodate all staff and visitors. There are clearly identified staff, visitor, accessible and generic parking spaces. The site is flat and the entrance is at grade.

The DAO occupies a leased commercial office space which was thoroughly renovated and modified in 2010 to suit the specific needs of the district. Increased square footage has allowed the district to consolidate varying administrative functions which were previously housed throughout the district in varying locales and in inadequate spaces. Multiple conference spaces have been provided to accommodate small to large groups. Room layouts are designed to facilitate work flow and provide necessary privacy and confidentiality. Storage and support spaces have been sized and located to suit District needs.

Both the site and the building are totally handicapped accessible per applicable codes and ordinances. Building security is maintained by door card access controls, cameras and a monitored fire and security system. The main reception area functions using a pass window allowing visitors to be greeted before being electronically passed into the main office space.

All mechanical, plumbing, electric and telecommunications systems have been upgraded and currently suit the needs of the DAO. There is no evidence of hazardous materials apparent in the space.

Given the recent date of the renovations, the adequacy of the spaces and the infrastructure, and the long term lease agreement, the District sees no immediate need to either modify the building or relocate their facilities however in the future it would be preferable for the DAO to be connected or adjacent to the High School..

QUAKER VALLEY SCHOOL DISTRICT

QUAKER VALLEY HIGH SCHOOL

625 Beaver Street, Leetsdale, PA 15056

Ms. Deborah Riccobelli, Principal
Dr. John Bornyas, Interim Assistant Principal



Facility Profile

Date of Construction	1926	Renovations/Additions	1998
Grades	9th thru 12th		
Stories	Four Story		
Occupancy Type	Educational		
Construction Type	Non-Combustible / Steel Frame		
Architectural Area	126,563 SF	Site Area	13.98 acres (shared with McNamara Park)
PDE FTE Capacity	694		
Current Enrollment	614		
Municipality	Leetsdale Borough		
Condition	Poor to Good		
Building History	1959	Minor upgrades	
	1988	Minor upgrades	
	1998	Extensive renovations & minor additions	
	2003	Main entrance security alterations	
	2005	Water infiltration remediation, roof repair & HVAC upgrades	
	2008	Auditorium Sound System	

QUAKER VALLEY SCHOOL DISTRICT

Existing Building Utilization

BASEMENT FLOOR PLAN

Key to Spaces

1. Entry
2. Lobby
3. Corridor
4. Administration
5. Guidance
6. Health Suite
7. Faculty/Staff
8. Gymnasium
9. Locker Rooms
10. Fitness Classrooms
11. Cafeteria
12. Kitchen
13. Auditorium
14. Stage
15. Library/Media Center
16. Library Classroom
17. Art Classroom
18. Band Classroom
19. Choral Classroom
20. Music Classroom
21. Computer/Business Classroom
22. Family & Consumer Science Classroom
23. Tech-Ed Classroom
24. General Classroom
25. Science Classroom
26. Special Education Classroom
27. Small Group Instruction
28. Student Activities
29. School Store
30. Restrooms

QUAKER VALLEY SCHOOL DISTRICT

GROUND FLOOR PLAN

Key to Spaces

1. Entry
2. Lobby
3. Corridor
4. Administration
5. Guidance
6. Health Suite
7. Faculty/Staff
8. Gymnasium
9. Locker Rooms
10. Fitness Classrooms
11. Cafeteria
12. Kitchen
13. Auditorium
14. Stage
15. Library/Media Center
16. Library Classroom
17. Art Classroom
18. Band Classroom
19. Choral Classroom
20. Music Classroom
21. Computer/Business Classroom
22. Family & Consumer Science Classroom
23. Tech-Ed Classroom
24. General Classroom
25. Science Classroom
26. Special Education Classroom
27. Small Group Instruction
28. Student Activities
29. School Store
30. Restrooms

QUAKER VALLEY SCHOOL DISTRICT

FIRST FLOOR PLAN

Key to Spaces

1. Entry
2. Lobby
3. Corridor
4. Administration
5. Guidance
6. Health Suite
7. Faculty/Staff
8. Gymnasium
9. Locker Rooms
10. Fitness Classrooms
11. Cafeteria
12. Kitchen
13. Auditorium
14. Stage
15. Library/Media Center
16. Library Classroom
17. Art Classroom
18. Band Classroom
19. Choral Classroom
20. Music Classroom
21. Computer/Business Classroom
22. Family & Consumer Science Classroom
23. Tech-Ed Classroom
24. General Classroom
25. Science Classroom
26. Special Education Classroom
27. Small Group Instruction
28. Student Activities
29. School Store
30. Restrooms

QUAKER VALLEY SCHOOL DISTRICT

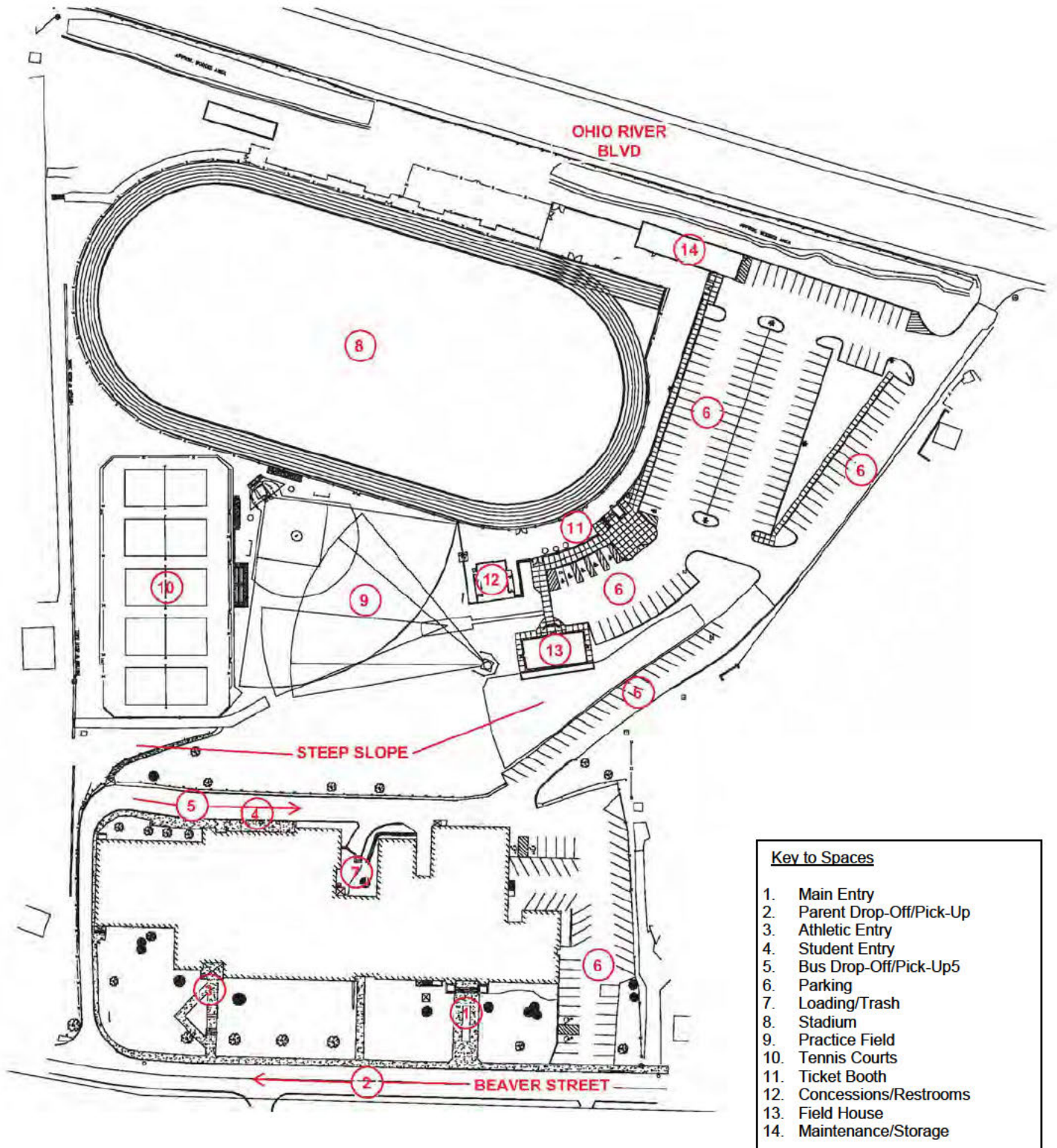
SECOND FLOOR PLAN

Key to Spaces

1. Entry
2. Lobby
3. Corridor
4. Administration
5. Guidance
6. Health Suite
7. Faculty/Staff
8. Gymnasium
9. Locker Rooms
10. Fitness Classrooms
11. Cafeteria
12. Kitchen
13. Auditorium
14. Stage
15. Library/Media Center
16. Library Classroom
17. Art Classroom
18. Band Classroom
19. Choral Classroom
20. Music Classroom
21. Computer/Business Classroom
22. Family & Consumer Science Classroom
23. Tech-Ed Classroom
24. General Classroom
25. Science Classroom
26. Special Education Classroom
27. Small Group Instruction
28. Student Activities
29. School Store
30. Restrooms

QUAKER VALLEY SCHOOL DISTRICT

SITE PLAN



QUAKER VALLEY SCHOOL DISTRICT

Existing Conditions Analysis

General

The existing High School was originally constructed in 1926 and underwent a Major Renovations and Additions project completed in 1998. The existing High School building is in fair to good condition. Although the renovations performed in 1998 were extensive they were not comprehensive and were not all designed for longevity & maintainability. If properly maintained and with minor upgrades, these renovated areas of the building should provide the district with an additional 5 to 8 years of service without need for any major renovations. The additions built in 1998 are in fair to good condition, with proper maintenance and minor upgrades as needed, these areas of the building should serve the district for the next 10 plus years without the need for major renovations. The District has struggled with numerous water infiltration issues over the years since the renovations and although the majority of the water was addressed in a water remediation project in 2005, the building has suffered with moisture related issues.

The District has been able to effectively deliver their educational program over the last 12 years, however current and future needs are becoming more challenging to meet as the educational program expands, especially in the arts and the athletics. The building presents a challenge in offering more programs as the building is already fully utilized and numerous educational spaces are undersized. The 1998 and prior renovations left the building carved-up and reconfigured the existing structure in ways that compromise the efficiency and usability of space.

The 1998 renovations addressed handicapped accessibility upgrades, any future renovations or improvement projects should be designed to current accessibility standards.

The building was partially re-roofed as part of the 1998 project; consideration should be given to re-roofing the remainder of the building, tearing off all layers of old roofing.

Although the HVAC system was brought up to building codes of the time, air conditioning was not a part of that project scope. The lack of air conditioning in the building has proved to be an administrative issue for the District, the number of students with environmental allergies has risen and the District ability to provide summertime programs has been hampered.

With the nature of the tight site, traffic patterns around the building are compromised. The bus and parent drop-off areas are effectively separated but neither circulation path is ideal and cause congestion and unsafe conditions. The buses circle around to the back of the building and drop-off and pick up students on the buildings lowest level. The bus drive is tight, forcing the busses to maneuver the tight corner around the building and stack out onto Beaver Street. The parent drop-off and pick-up is along Beaver street at the front of the building. Beaver Street is a fairly heavily trafficked municipal street; the vehicular circulation is congested with parents mixing with both thru traffic and buses. The traffic conditions should be addressed as part of any option. Staff & Student parking is provided on site with the parking spaces located along the drive between the school & McNamara Park and within the McNamara Park parking lots. The students and staff walk up the drive way to the school. Visitor and administrative parking is in a small lot adjacent to the main entrance. Buses and students and staff circulate through this lot. Additional visitor parking is needed on site and should be separated from the vehicular circulation paths.

Building Systems

See Attached 'Exhibit D' for HVAC, Plumbing/Fire Protection and Electrical Facility and Food Service/Kitchen Assessments.

QUAKER VALLEY SCHOOL DISTRICT

The following is a preliminary list of additional High School identified program, facility and deferred maintenance needs (some may be previously mentioned):

- Adequate classroom space based on enrollment and educational program needs
- Create adequate classroom space throughout building, rooms are currently undersized
- Access control system needed (keycards)
- Keying system is obsolete
- Flooring repair/replacement throughout
- Gymnasium and wellness upgrades needed
- Security cameras needed for both interior & exterior monitoring
- Classroom technology stations needed to include LCD projectors
- HVAC systems upgrades & equipment replacement
- Replace carpet with linoleum
- Reconfigure and re-equip kitchen
- Relocate Guidance Office closer to Main Administration Office
- Water supply and sanitary waste lines to be addressed
- Replace plumbing fixtures with high-efficiency/low flow type
- Green design and energy efficiency improvements
- Address site traffic patterns – improve safety
- Parking upgrades and expansion
- Building code and accessibility upgrades
- Fire alarm system upgrades
- Exterior masonry repair and re-grouting including parapet repair
- Auditorium, stage, and theatrical lighting upgrades
- Lighting upgrades – interior and exterior
- Resolve water infiltration issues

QUAKER VALLEY SCHOOL DISTRICT

ATHLETIC FACILITIES

The district utilizes various athletic facilities throughout the district to support the district sponsored athletic programs. These facilities are also utilized by the general public and available to community athletic programs for practice and competition.

Edgeworth Field

Osborne Field

Middle School Walking Track and Field

McNamara Park

The McNamara Athletic Complex located at the High School Site supports the High School physical education program, various sports programs and community use. The complex was upgraded in 2002 with the construction of five tennis courts and again in 2003 with the upgrades to their stadium, track and field. The complex includes event parking, stadium ticket booth, concession stand and restrooms, and a field house. The grass field was replaced with synthetic turf and the track was resurfaced in 2004. The synthetic turf field was replaced in 2014. The complex also includes accommodations for various field events like jumping and throwing and includes a grass practice field. The McNamara Athletic Complex is located along Ohio River Boulevard and is separated from the High School with a large steeply sloping hillside. The facilities are open to the general public and utilized by various community sports programs.

Bouchard Park Recreation Facility

QUAKER VALLEY SCHOOL DISTRICT

PART III – OPTIONS

PRIORITIES/GOALS

OPTIONS

OPTION SUMMARY



QUAKER VALLEY SCHOOL DISTRICT

PRIORITIES/GOALS

In the previous District Wide Facility Study completed in 2010, the District identified that the modernization and upgrades to the Middle School was of the highest priority. As a result, the Middle School underwent comprehensive alterations and additions in 2013 which brought the facility up to date and resulted in a facility that will adequately accommodate future needs. It is now the Districts desire to plan for improvements to the High School. The District has identified the following priorities in their evaluation of the various options.

PRIORITY I

High School

- a. Deferred maintenance/capital improvements;
- b. Safety and security upgrades;
- c. Modernization of building infrastructure and physical plant;
- d. Functional reorganization to support the current and future programmatic needs of the administration, educational program & the community;
- e. Expansion to accommodate program needs not currently addressed in the existing facility;
- f. Energy efficiency improvements and Green design features.

PRIORITY 2

Ongoing maintenance of other district facilities.

It is the districts intention to maintain their current grade level alignments with grades 9 thru 12 at the High School. The priority goals can be addressed through renovations/additions to existing facilities or through construction of a new facility; the following options contemplate both scenarios.

QUAKER VALLEY SCHOOL DISTRICT

Options Considered

HIGH SCHOOL OPTIONS *

- IA Deferred maintenance and capital improvement upgrades
- IB Comprehensive alterations and additions (as required to accommodate program)
- IC Partial demolition with comprehensive alterations and additions
(Scenario 5)
- ID New high school building on the existing site
(Scenario 3 & 4)
- IE New high school building on the existing campus – relocate Stadium
(Scenario 1 & 2)
- IF New high school building on a new site

- * As part of any comprehensive High School project (Options IB thru IF), the District would like to relocate the District Administrative Offices to (or adjacent to) the High School.

NOTE: Numerous potential site development scenarios for the existing High School Campus reflecting the above Options IC, ID, and IE have been studied and are attached (Exhibit F). The corresponding Scenarios are referenced above in red.

QUAKER VALLEY SCHOOL DISTRICT

OPTION IA – High School

Deferred Maintenance and Capitol Improvement Upgrades

	<u>SUMMARY</u>	<u>COSTS</u>	
		<u>Low</u>	<u>High</u>
ARCHITECTURAL UPGRADES	<ul style="list-style-type: none"> •Kitchen & Servery upgrades & equipment replacement •Roof Replacement •Replace fire escape •Exterior door and hardware replacement •Stage Upgrades •Site Improvements to include 'governors drive', additional visitor parking, & existing parking lot repairs 	\$2,060,000	\$3,000,000
HVAC UPGRADES	<ul style="list-style-type: none"> •Building-wide air conditioning •Replace terminal equipment •Replace boilers •Replace air handling equipment •New DDC controls •New Chiller •New HVAC system to serve Kitchen 	\$2,350,000	\$4,120,000
PLUMBING UPGRADES	<ul style="list-style-type: none"> •New Plumbing to accommodate Kitchen upgrades •Upgrade to low-flow fixtures •Replace hot water boilers •Install kitchen grease interceptor 	\$470,000	\$830,000
ELECTRICAL UPGRADES	<ul style="list-style-type: none"> •New Electrical to accommodate HVAC upgrades •New Electrical to accommodate Kitchen upgrades •Site lighting at new 'governors drive' & parking •Technology Upgrades •Security Upgrades 	\$1,200,000	\$1,450,000
CONSTRUCTION COST		\$6,170,000	\$9,900,000
PROJECT COST*		\$7,404,000	\$11,880,000

* Project Costs include 20% soft costs.

SUMMARY

The scope of work in this option is viewed as the work that would be necessary to perform if the District were to maintain the status quo for more than the next five to eight years.

CHALLENGES

This option does not include any improvements to accommodate current or future programmatic needs. Educational, administrative and community needs have changed over the years and are anticipated to change in the future and this option does not accommodate those needs or anticipate the changing trends in education.

QUAKER VALLEY SCHOOL DISTRICT

Due to the age of the building and the nature of the previous renovations, other significant capital improvement needs could exist but be unknown at this time. It is generally recognized that the previous renovation projects did not address the building comprehensively, concealed conditions may exist that could become evident with time or construction activity.

QUAKER VALLEY SCHOOL DISTRICT

OPTION IB – High School / DAO

Comprehensive Alterations & Additions

	<u>SUMMARY</u>	<u>COSTS</u>	
		<u>Low</u>	<u>High</u>
PROJECTED ENROLLMENT (Stewman – 2018)	705		
PDE CAPACITY (FTE's HS/DAO))	1376 / 22		
EXISTING BUILDING RENOVATIONS	126,560 SF**	\$19,616,800*	\$20,882,400*
HS NEW CONSTRUCTION	83,440 SF**	\$18,356,800*	\$21,694,400*
DAO NEW CONSTRUCTION	12,000 SF**	\$2,640,000*	\$3,120,000*
SITE DEVELOPMENT	13.98 Acres (allowance****)	\$2,500,000*	\$3,500,000*
CONSTRUCTION COST		\$43,113,600	\$49,196,800
PROJECT COST***		\$53,892,000	\$61,496,000

* Construction Costs are based on \$155/sf to \$165/sf for Renovations and \$220/sf to \$260/sf for New Construction. Unit costs are influenced by the complicated nature of the project and site; unknown existing conditions, previous renovations & additions, site logistics & phasing, tight site constraints, water proofing, retaining walls, special foundations, etc.

** Proposed Area (including both Existing & New) is based on the Proposed Program Table in Exhibit E (HS 210,000 sf/ DAO 12,000 sf)

*** Project Costs include 25% soft costs

**** The site cost allowance assumes the site development is limited to the area immediately adjacent to the building and that the McNamara Park facilities would be preserved.

SUMMARY

This option contemplates comprehensive alterations to the existing building and additions to accommodate program needs. In addition to physical plant updates and general modernization, it is recommended that the internal organization of the existing building be reconfigured to more effectively meet the program needs. Numerous educational spaces are currently undersized, internal walls should be moved to provide appropriately sized classrooms and support spaces. The interior environment should be outfitted to support the various educational programs. The comprehensive alterations will address the identified deficiencies within the existing facility and will include upgrades and modernizations that will bring the building up to current codes.

QUAKER VALLEY SCHOOL DISTRICT

Considerations:

- The District has identified programmatic deficiencies in the Food Service, Arts, Family & Consumer Science, Tech-Ed, and Athletics departments and Administration and it is assumed that additions will include facilities to enhance these program areas.
- The Existing Gymnasium is undersized and an addition would be necessary to enlarge it to the desired size.
- The existing Auditorium, stage, and support spaces are undersized and do not provide the appropriate amount of flexibility for a multi-use assembly space. An addition would be necessary to provide a large group assembly venue to meet both performance and educational needs.
- The usability/efficiency of the existing building is compromised by the organization of the original construction and previous improvement projects. The efficiency of the building may not be dramatically enhanced after renovations due to the existing building limitations.
- The District may consider eliminating the District Administration Offices from the project in order to reduce site congestion; in this scenario the DAO would remain in its current location.
- While the existing site utilization separates Bus and Parent drop-off zones, the circulation paths cross and are not adequately sized to accommodate the traffic. The parent drop-off occurs on a heavily trafficked main municipal street leading to congestion and unsafe conditions. Site modifications should address the traffic issues by providing an on-site parent drop-off, a more appropriate bus route and drop-off/pick-up area, and additional visitor and staff parking.

CHALLENGES

This option assumes that the entire existing building will be renovated & reused in the additions and alterations project. It would be fair to speculate that when the schematic design is developed that the proposed program may not pair up exactly to the existing facility and at that time it may be considered that portions of the existing building be demolished and replaced with new construction. The extent to which that may be found to be desirable or necessary cannot be determined at this time.

The district should consider vacating the existing building during construction. While it might be possible to renovate and build new additions in phases while keeping the building occupied, it may not be a practical solution at this site. The site is already very congested and the buildable area of the site is limited by the adjacent residential properties, the city street, and the large slope that separates the High School from the McNamara Park facilities below. Occupying the building during construction may prove to limit the design options, lengthen the construction timeline, add to the construction costs and further congest the existing site.

The Department of Education's recommendation for this High School based on full-time equivalents (FTE's) is 49 acres, the existing site area is approximately 35 acres below the recommended acreage, and a portion of the existing site exceeds a 20% slope.

QUAKER VALLEY SCHOOL DISTRICT

OPTION IC – High School / DAO

Partial Demolition and Comprehensive Alterations & Additions

(See Exhibit F - Scenario 5)

	<u>SUMMARY</u>	<u>COSTS</u>	
		<u>Low</u>	<u>High</u>
PROJECTED ENROLLMENT (Stewman 2018))	705		
PDE CAPACITY (FTE HS/DAO)	1376 / 22		
EXISTING BUILDING RENOVATIONS	69,000 SF**	\$10,695,000*	\$11,385,000*
HS NEW CONSTRUCTION	141,000 SF**	\$31,020,000*	\$36,660,000*
DAO NEW CONSTRUCTION	12,000 SF**	\$2,640,000	\$3,120,000
PARTIAL DEMOLITION	(allowance)	\$500,000	\$1,000,000
SITE DEVELOPMENT	13.98 Acres (allowance****)	\$2,500,000*	\$3,500,000*
CONSTRUCTION COST		\$47,355,000	\$55,665,000
PROJECT COST***		\$59,193,750	\$69,581,250

* Construction Costs are based on \$155/sf to \$165/sf for Renovations and \$220/sf to \$260/sf for New Construction. Unit costs are influenced by the complicated nature of the project and site; unknown existing conditions, previous renovations & additions, site logistics & phasing, tight site constraints, water proofing, retaining walls, special foundations, etc.

** Proposed Area (including both Existing & New) is based on the Proposed Program Table in Exhibit D (HS 210,000 sf/ DAO 12,000 sf)

*** Project Costs include 25% soft costs

**** The site cost allowance assumes the site development is limited to the area immediately adjacent to the building and that the McNamara Park facilities would be preserved.

SUMMARY

This option contemplates the partial demolition of the existing building, those areas that offer limitations to their re-use, alterations to the remaining portion of the building, and construction of sizable additions. The demolition of the existing building provides additional opportunities for development of the site. The organization of the building design should be greatly improved; however it is assumed that the building would need to be multiple floors (possible 4 to 5) in order to accommodate the building on this site.

Considerations:

QUAKER VALLEY SCHOOL DISTRICT

- It would be recommended that the new portion of the building include the large venue spaces like the gym, auditorium and cafeteria, the highly specialized instructional and support spaces such as tech-ed, science, art, and music, and the existing building be utilized to accommodate general instruction.
- The District may consider eliminating the District Administration Offices from the project in order to reduce site congestion; in this scenario the DAO would remain in its current location.
- With a large portion of new building on this site, there may be an opportunity to develop parking under the building footprint.
- It is advisable that if a project is to be considered on the existing site, the District look into acquisition of adjacent property.
- While the existing site utilization separates Bus and Parent drop-off zones, the circulation paths cross and are not adequately sized to accommodate the traffic. The parent drop-off occurs on a heavily trafficked main municipal street leading to congestion and unsafe conditions. Site modifications should address the traffic issues by providing an on-site parent drop-off, a more appropriate bus route and drop-off/pick-up area, and additional visitor and staff parking.

CHALLENGES

The district should consider vacating the existing building during construction. While it might be possible to renovate, demolish portions of the existing building and build new additions in phases while keeping the building occupied, it may not be a practical solution at this site. The site is already very congested and the buildable area of the site is limited by the adjacent residential properties, the city street, and the large slope that separates the High School from McNamara Park. Occupying the building during construction may prove to limit the design options, lengthen the construction timeline, add to the construction costs and further congest the existing site.

The Department of Education's recommendation for this High School based on full-time equivalents (FTE's) is 49 acres; the existing site area is approximately 35 acres below the recommended acreage.

QUAKER VALLEY SCHOOL DISTRICT

OPTION ID – High School / DAO

New Building on Existing Site

(See Exhibit F – Scenarios 3 & 4)

	<u>SUMMARY</u>	<u>COSTS</u>	
		<u>Low</u>	<u>High</u>
PROJECTED ENROLLMENT (Stewman 2018)	705		
PDE CAPACITY (FTE HS/DAO)	1376 / 22		
EXISTING BUILDING RENOVATIONS	n/a		
HS NEW CONSTRUCTION	210,000 SF**	\$46,200,000*	\$54,600,000*
DAO NEW CONSTRUCTION	12,000 SF**	\$2,640,000	\$3,120,000
BUILDING DEMOLITION	(allowance)	\$800,000	\$1,500,000
SITE DEVELOPMENT	13.98 Acres (allowance****)	\$3,500,000*	\$4,500,000*
CONSTRUCTION COST		\$53,140,000	\$63,720,000
PROJECT COST***		\$66,425,000	\$79,650,000

* Construction Costs are based on \$220/sf to \$260/sf for New Construction. Unit costs are influenced by the complicated nature of the project and site; site logistics & phasing, tight site constraints, water proofing, retaining walls, special foundations, etc.

** Proposed Area is based on the Proposed Program Table in Exhibit D

*** Project Costs include 25% soft costs

**** The site cost allowance assumes that the existing site would be utilized in its current configuration, with the new building occupying roughly the same area of the site as the existing building and that the McNamara Park facilities would be preserved.

SUMMARY

This option contemplates the construction of a new building with associated site development to support the High School /DAO on the existing site. The demolition of the existing building provides additional opportunities for development of the site. The organization of the building design should be greatly improved; however it is assumed that the building would need to be multiple floors (possible 4 to 5) in order to accommodate the building on this site.

Considerations:

- The District may consider eliminating the District Administration Offices from the project in order to reduce site congestion; the DAO would remain in its current location.

QUAKER VALLEY SCHOOL DISTRICT

- With a new building on this site, there may be an opportunity to develop parking under the building footprint.
- It is advisable that if a project is to be considered on the existing site, the District look into acquisition of adjacent property.
- While the existing site utilization separates Bus and Parent drop-off zones, the circulation paths cross and are not adequately sized to accommodate the traffic. The parent drop-off occurs on a heavily trafficked main municipal street leading to congestion and unsafe conditions. Site modifications should address the traffic issues by providing an on-site parent drop-off, a more appropriate bus route and drop-off/pick-up area, and additional visitor and staff parking.

CHALLENGES

The district should consider vacating the existing building during construction. While it might be possible to renovate and build a new building & demolish the existing building in phases while keeping the building occupied, it may not be a practical solution at this site. The site is already very congested and the buildable area of the site is limited by the adjacent residential properties, the city street, and the large slope that separates the High School from McNamara Park. Occupying the building during construction may prove to limit the design options, lengthen the construction timeline, add to the construction costs and further congest the existing site.

While the organization of the building should be greatly improved over the existing, the site will still be constrained by the property limits, municipal streets, and the steep slope that separates the High School from McNamara Park. These site limitations will limit the availability to fully differentiate bus, parent and student circulation.

The Department of Education's recommendation for this High School based on full-time equivalents (FTE's) is 49 acres; the existing site area is approximately 35 acres below the recommended acreage.

QUAKER VALLEY SCHOOL DISTRICT

OPTION 1E – High School / DAO

New Building on Existing Campus – Relocate McNamara Park Facilities

(See Exhibit F – Scenarios 1 & 2)

	<u>SUMMARY</u>	<u>COSTS</u>	
		<u>Low</u>	<u>High</u>
PROJECTED ENROLLMENT (Stewman 2018)	705		
PDE CAPACITY (FTE HS/DAO)	1376 / 22		
EXISTING BUILDING RENOVATIONS	n/a		
HS NEW CONSTRUCTION	210,000 SF**	\$46,200,000*	\$54,600,000*
DAO NEW CONSTRUCTION	12,000 SF**	\$2,640,000	\$3,120,000
BUILDING/ STADIUM DEMOLITION	(allowance)	\$1,500,000	\$2,000,000
SITE DEVELOPMENT	13.98 Acres (allowance)	\$5,000,000*	\$8,000,000*
RELOCATE MCNAMARA PARK	(allowance****)	\$3,500,000	\$4,500,000
CONSTRUCTION COST		\$58,840,000	\$72,220,000
PROJECT COST***		\$73,550,000	\$90,275,000

* Construction Costs are based on \$220/sf to \$260/sf for New Construction. Unit costs are influenced by the complicated nature of the project and site; site logistics & phasing, tight site constraints, water proofing, retaining walls, special foundations, etc.

** Proposed Area is based on the Proposed Program Table in Exhibit D

*** Project Costs include 25% soft costs

**** The nature of the stadium relocation site is yet unknown, allowance assumes that the site is relatively flat and that basic utilities would be available in close proximity to the proposed stadium locations

Note: Site Acquisition Costs (if applicable) are not included.

SUMMARY

This option contemplates the construction of a new building with associated site development to support the High School /DAO on the existing campus. The relocation of the existing stadium and demolition of the existing high school building provide additional opportunities for development of the site. The organization of the building design should be greatly improved; however it is assumed that the building would need to be multiple floors (possible 2 to 3) in order to accommodate the building on this site.

QUAKER VALLEY SCHOOL DISTRICT

Considerations:

- The District may consider eliminating the District Administration Offices from the project in order to reduce site congestion; the DAO would remain in its current location.
- With a new building on this site, there may be an opportunity to develop parking under the building footprint.
- It is advisable that if a project is to be considered on the existing site, the District look into acquisition of adjacent property.
- While the existing site utilization separates Bus and Parent drop-off zones, the circulation paths cross and are not adequately sized to accommodate the traffic. The parent drop-off occurs on a heavily trafficked main municipal street leading to congestion and unsafe conditions. Site modifications should address the traffic issues by providing an on-site parent drop-off, a more appropriate bus route and drop-off/pick-up area, and additional visitor and staff parking.

CHALLENGES

The district may consider vacating the existing building during construction. While it might be possible to build a new building & demolish the existing building in phases while keeping the building occupied, it may not be a practical solution at this site. The site is already very congested and the buildable area of the site is limited by the adjacent residential properties, the city street, and the large slope that separates the High School from McNamara Park. Occupying the building during construction may prove to limit the design options, lengthen the construction timeline, add to the construction costs and further congest the existing site.

While the organization of the building should be greatly improved over the existing, the site will still be constrained by the property limits, municipal streets, and the steep slope that separates the High School from McNamara Park. These site limitations may limit the availability to fully differentiate bus, parent and student circulation.

The lower portion of the campus site is in the designated floodplain of the Ohio River, development of the lower site will be subject to additional approvals and may become impractical.

The Department of Education's recommendation for this High School based on full-time equivalents (FTE's) is 49 acres; the existing site area is approximately 35 acres below the recommended acreage.

QUAKER VALLEY SCHOOL DISTRICT

OPTION 1F – High School / DAO

New Building on New Site

	<u>SUMMARY</u>	<u>COSTS</u>	
		<u>Low</u>	<u>High</u>
PROJECTED ENROLLMENT (Stewman 2018))	705		
PDE CAPACITY (FTE HS/DAO))	1376 / 22		
EXISTING BUILDING RENOVATIONS	n/a		
HS NEW CONSTRUCTION	210,000SF**	\$46,200,000*	\$54,600,000*
DAO NEW CONSTRUCTION	12,000 SF	\$2,640,000	\$3,120,000
SITE DEVELOPMENT	(allowance****)	\$8,000,000*	\$12,000,000*
CONSTRUCTION COST		\$56,840,000	\$69,720,000
PROJECT COST***		\$71,050,000	\$87,150,000

- * Construction Costs are based on \$220/sf to \$260/sf for New Construction plus site development
 - ** Proposed Area is based on the Proposed Program Table in Exhibit E (HS 210,000 sf/DAO 12,000 sf)
 - *** Project Costs include 25% soft costs
 - **** The nature of a new site is yet unknown, allowance assumes that the site is relatively flat and that basic utilities would be available in close proximity to the proposed building location
- Note: Site Acquisition Costs are not included;
PDE's recommended acreage = 49 acres,; For a HS it is 35 acres + 1 acre for every 100 FTE's

SUMMARY

This option contemplates the construction of a new building with associated site development to support the High School/DAO on a new site within the District. The design options available for a new building on a new site should be extensive and be able to be driven by the program needs for the building without the constraints of the existing building and site.

Considerations:

- The District would need to acquire land (costs outside this analysis); a site with a useable area of approximately 49 acres is recommended by PDE.
- The District may consider incorporating transportation and maintenance facilities into the project.
- This option assumes that the stadium facilities at McNamara Park will remain at the existing High School site & will not be relocated as part of this project. Additional opportunities for athletic facilities on the new site would be considered as part of the project.

QUAKER VALLEY SCHOOL DISTRICT

- The new building should be designed to accommodate community and evening events within secured public areas.
- The new site should be organized to provide separate Bus and Parent circulation during arrival & dismissal, adequate staff and visitor parking, and outdoor recreational facilities for use of the school and community.
- The existing school can be utilized during construction of a new facility without any on-site construction activity.
- The final utilization of the existing HS building and site still to be determined; considerations include repurpose, divest, & demolish.

CHALLENGES

The availability of property within the district is an unknown and while the state does reimburse for property acquisition, the costs associated with site acquisition and development of the property could be high. These costs for acquisition, regulatory approvals & site development beyond the typical earthmoving to receive the building are not factored into the above costs.

QUAKER VALLEY SCHOOL DISTRICT

Option Summary

<u>DISTRICT ADMINISTRATION OFFICE</u>						
Maintain & Relocate The district administration office recently moved into a newly renovated commercial property, it is the district's intent to continue to lease this facility for until it can be relocated as part of a High School project – see High School Options 1B thru 1F below.						
<u>EDGEWORTH ELEMENTARY SCHOOL</u>						
Maintain Comprehensive Additions and Alterations were completed in 2005; no deficiencies have been identified at this time. The building shall continue to be maintained as part of the District's comprehensive maintenance program.						
<u>OSBORNE ELEMENTARY SCHOOL</u>						
Maintain Comprehensive Additions and Alterations were completed in 2006; no deficiencies have been identified at this time. The building shall continue to be maintained as part of the District's comprehensive maintenance program.						
<u>MIDDLE SCHOOL</u>						
Maintain Comprehensive Additions and Alterations were completed in 2013; no deficiencies have been identified at this time. The building shall continue to be maintained as part of the District's comprehensive maintenance program.						
<u>HIGH SCHOOL</u>						
Option 1A – HIGH SCHOOL Deferred Maintenance and Capitol Improvement Upgrades						
			Construction Cost Range		Project Cost Range	
			Low	High	Low	High
			\$6,170,000	\$9,900,000	\$7,404,000	\$11,880,000
Option 1B – HIGH SCHOOL / DAO Comprehensive Alterations and Additions						
	Existing Building Renovations	New Construction/ Additions	Construction Cost Range		Project Cost Range	
Area	126,560 sf	95,440 sf	Low	High	Low	High
Costs	\$155/sf to \$165/sf	\$220/sf to \$260/sf	\$43,113,600	\$49,196,800	\$53,892,000	\$61,496,000
Site Allowance Range	\$2,500,000 to \$3,500,000					
Option 1C – HIGH SCHOOL / DAO Partial Demolition with Comprehensive Alterations and Additions						
	Existing Building Renovations	New Construction/ Additions	Construction Cost Range		Project Cost Range	
Area	69,000 sf	153,000 sf	Low	High	Low	High
Costs	\$155/sf to \$160/sf	\$220/sf to \$260/sf	\$47,355,000	\$55,665,000	\$59,193,750	\$69,581,250
Demolition Allowance	\$500,000 to \$1,000,000					
Site Allowance Range	\$2,500,000 to \$3,500,000					

QUAKER VALLEY SCHOOL DISTRICT

Option 1D - HIGH SCHOOL / DAO					
New Building on Existing Site					
	New Construction	Construction Cost Range		Project Cost Range	
Area	220,000 sf	Low	High	Low	High
Costs	\$220/sf to \$260/sf	\$53,190,000	\$63,720,000	\$66,425,000	\$79,650,000
Demolition Allowance	\$1,000,000 to \$1,500,000				
Site Allowance Range	\$3,500,000 to \$4,500,000				
Option 1E – HIGH SCHOOL / DAO					
New Building on Existing Campus – Relocate McNamara Park					
	New Construction	Construction Cost Range		Project Cost Range	
Area	220,000 sf	Low	High	Low	High
Costs	\$220/sf to \$260/sf	\$58,840,000	\$72,220,000	\$73,550,000	\$90,275,000
Site Allowance Range	\$3,500,000 to \$4,500,000				
Option 1F – HIGH SCHOOL / DAO					
New Building on New Site					
	New Construction	Construction Cost Range		Project Cost Range	
Area	220,000 sf	Low	High	Low	High
Costs	\$220/sf to \$260/sf	\$56,840,000	\$69,720,000	\$71,050,000	\$87,150,000
Site Allowance Range	\$8,000,000 to \$12,000,000				

QUAKER VALLEY SCHOOL DISTRICT

PART IV - RECOMMENDATION

SELECTED OPTIONS

This study has provided an analysis of the existing facilities and potential options to address both current and future needs. The existing Edgeworth and Osborne Elementary Schools, the Middle School, the District Office Facilities, and Stadium at McNamara Park are in excellent condition due to recent capitol improvement projects at these facilities. Upgrades to these facilities will be relatively minor over the next twenty years if properly maintained.



Although the existing High School has had a numerous renovations, additions and minor capital improvement projects over the last 10 to 20 years, it is in the worst condition of any of the district buildings. Adding to the deficiencies brought on by the nature of its age, the building is not designed to accommodate current educational needs and this will be even more dramatically so over the next ten years with continued changes in educational programming. Improvements which may include significant building expansion are the District's most immediate need. The District has identified their intent to comprehensively address the High School building as part of their future capital improvements plan and have identified that addressing the needs of the High School is their first priority.

High School

The District has identified that their focus for the High School project will be to create a 21st century learning environment with a focus on the future of education. Their programming goals will include highly specialized instructional spaces with focuses on STEAM (science, technology, engineering, art and math) curriculum, performing and fine arts, collaborative learning, athletics, and the availability of these as community resources. Due to the nature of the existing building and the previous improvement projects which left the building with unusual physical characteristics, it is recommended that the most effective way to achieve the district's programming goals will be to construct a new High School in total or additions and alterations consisting of replacement of the majority of the existing building with new construction. The District has also identified their desire to relocate the District Administrative Offices to the High School.

The biggest challenge facing the District with the future High School project will be the existing site constraints. Numerous Existing Site Development Scenarios reflecting Options IC, ID, & IE have been studied and are attached (Exhibit F). Each Scenario has identified associated Pros and significant Cons challenging their viability. The recommendation of the design committee is to further explore opportunities for potential site acquisition and site development within the District prior to any further evaluation of the existing site.

This District Wide Facility Study Final Report is to be utilized as a tool to plan for the future of the District and the District's facilities. This report is intended to be a 'living' document that will be refined, revised and adapted to meet the ever-changing needs and desires of the District.

QUAKER VALLEY SCHOOL DISTRICT

Exhibit A - Author's Credentials



In the Spring of 2014, the Quaker Valley School District Board of Director's commissioned Eckles Architecture & Engineering to complete a District-Wide Facility study in order to evaluate their facility needs, to develop options for future campus development, to make an assessment and recommendation for implementation, and to complete the necessary documentation required by Pennsylvania's Department of Education for a PlanCon reimbursable project.

This study was conducted by Design Professionals of Eckles Architecture & Engineering. Eckles has been involved in the planning, design & construction of School Facilities in Pennsylvania for over one-hundred years. Eckles is recognized throughout the region as a premier school facility design firm.

Ms. Cassandra Renninger, RA

Ms. Renninger is a Project Manager at Eckles Architecture & Engineering with over 18 years of experience designing school facilities in Western Pennsylvania. Cassandra holds a Bachelor of Architecture degree from Carnegie Mellon University and has a license to practice architecture in the state of Pennsylvania.

Mr. David Esposito, AIA

Mr. Esposito is the Principal at Eckles Architecture & Engineering with over 33 years of experience designing schools in western Pennsylvania. David holds a Bachelor of Architecture Degree from Carnegie Mellon University and is licensed to practice architecture in Pennsylvania, Ohio, and West Virginia.

Mr. J. Christopher Miller, PE, LEED AP BD+C

Mr. Miller is the Director of Engineering at Eckles Architecture & Engineering with over 42 years of experience designing school facilities. He is a graduate of Rensselaer Polytechnic Institute with a Bachelor of Science in Mechanical Engineering. Chris holds his Professional Engineering licenses in Pennsylvania, Ohio, and West Virginia.

QUAKER VALLEY SCHOOL DISTRICT

Exhibit B – District Planning / Programming



- Exhibit B1 Quaker Valley SD
District Level Plan
07/01/2013 – 06/30/2016**

- Exhibit B2 Quaker Valley High School
Program of Studies 2014-15**

- Exhibit B3 Quaker Valley Middle School
Program of Studies 2013-14**

Quaker Valley SD

District Level Plan

07/01/2013 - 06/30/2016

District Profile

Demographics

100 Leetsdale Industrial Dr
Leetsdale, PA 15056
(412) 749-3600
Superintendent: Joseph Clapper

Planning Process

Our process started two years ago when we hired a consultant to help us restart the strategic planning process. At that time, we worked with the consultant to review our vision, mission, core values, and goals and then began to determine the committee members who would participate in the strategic planning process. We referred to this work as our "mid-point correction" process because our strategic plan had not kept pace with the good work that was being done across the district. This planning process occurred internally for the first year. We began by reviewing what was currently in the strategic plan - the mission, vision, core values, goals, strategies, actions, etc. We spent time with various focus groups comprised of administrators, teachers and board members to determine what prior strategic plan goals needed to be adjusted, which strategies and actions had been accomplished, not accomplished or were no longer a priority. Once these groups had narrowed our focus, we began to rewrite the overall outline of the plan. Rather than a complete overhaul, we were able to make adjustments as necessary. The goals were reviewed and rewritten in order to align with our mission and vision. We then began to write strategies and actions to help keep us focused on accomplishing our goals. Each building principal was required to create action plans to address specific needs in their buildings. These action plans were submitted three times a year and reviewed by the superintendent and assistant superintendent to monitor progress and provide support where necessary.

During the second year of our mid-point correction we began to open the process to additional stakeholder groups. With board approval of the new goals, we were able to develop a plan involving focus groups and surveys. The purpose of the focus groups and surveys was to get honest feedback about issues related to our goals and determine strengths, weaknesses and areas for growth that we could embed into our new strategic/comprehensive plan. Our consultant ran the focus group discussions for parents, teachers, and administrators. The superintendent, assistant superintendent and director of academic services ran focus groups for the community business leaders, support staff, and students. Surveys were provided to the public, teacher leaders and the students as well. From these focus groups and surveys came critical information that the consultant compiled into a key findings document. As a result of this process, we achieved greater clarity regarding our strengths and weaknesses and areas requiring further development.

The third year is our renewal year with the state as we are considered a Phase I district. Fortunately, we have been working on revamping our strategic plan and taking what we have gained over the last two years and embedding it into the new comprehensive plan. This year, like the previous two years, we will ask principals and departments to develop action plans around each of their annual objectives related to the bigger strategic planning goals. These action plans drive our focus and what we do related to professional development and teacher/ principal supervision and evaluation. The reports are submitted to our assistant superintendent and superintendent three times over the course of the year for progress monitoring and final review.

Mission Statement

The mission of the Quaker Valley School District is to excel at educating students to become knowledgeable, self-directed, lifelong learners and ethical, responsible citizens.

Vision Statement

Vision Statements

1. It is a place where serving and caring for children are at the heart of the organization; where compassion and respect for everyone is inherent in the culture. Social greetings, smiles and exchanges of courtesy are commonplace.
2. A school that measures itself against the best is a place where students grow to be knowledgeable, self-directed, lifelong learners and ethical, responsible citizens.
3. It is a place where stakeholders ~ students, parents, community and staff ~ collaborate to make contributions that strengthen the community; where students benefit from the commitment of parents and the wider community.
4. It is a place where teaching and learning occurs anywhere at any time ranging from the teachable moment to planned experiences well beyond the schoolhouse and school day; where individual talents are nurtured, developed and celebrated.
5. It is place of high expectation that demands participation in academics, the arts, sports, competitions, community service projects and more; where obstacles are removed, enabling all to excel to their fullest potential; where strengths and responsible risk taking are valued and used to increase student learning.
6. It is a place where information on student achievement and developmental growth is routinely collected, analyzed and used to improve instructional programs and services.
7. It is a place that invites rigorous review, so that growth and the drive for excellence may continue and the school not only be measured against the best but become a standard against which others can measure themselves.
8. It is a place where state of the art buildings and grounds are always safe, clean, well cared for and regularly used by the school and community.

Shared Values

We believe that...

All people want to learn; all people can learn. Every individual has a unique combination of abilities and attributes that when recognized, nurtured and challenged promote the realization of potential.

Learning is a lifelong process.

Young people are valued, contributing members of society.

Communities that invest in youth prosper.

Respect for self and others promote a sense of community and environments conducive to learning.

Knowledge, competence and interpersonal skills are critical for success.

Quality is achievable in all aspects of the educational process.

Education is a partnership between family, school and community.

Educational Community

Quaker Valley School District is located along the Ohio River 12 miles northwest of Pittsburgh, Pennsylvania. Residents have easy access to major highways and Pittsburgh International Airport.

Our community is diverse, including various ethnic, racial and socioeconomic populations. Our stable population includes third and fourth generation Quaker Valley families, as well as those who have come to us not only from other states, but also from other countries. We embrace this diversity as an opportunity for cultural understanding and exchange. As a result, our schools mirror the cohesive, small-town atmosphere of the community they serve.

We are a small district with a reputation for quality. School and class sizes allow for a personal approach to instruction. Quaker Valley recognizes that it takes a cumulative experience of excellence to produce students who will be internationally competitive. To that end, an innovative curriculum challenges all students to excel as independent thinkers and learners, and gives each the support and incentive to do so successfully.

We are honored to have had all four of our schools selected for National Blue Ribbon Awards of Excellence.

The 2012 Pittsburgh Business Times Guide to Western Pennsylvania Schools ranked Quaker Valley School

District 8th out of 105 public school districts in western Pennsylvania and 24th out of 496 school districts in the Commonwealth of Pennsylvania.

The Washington Post Challenge Index named Quaker Valley High School tops in the nation for an eighth consecutive year in 2012.

Newsweek Magazine named Quaker Valley High School one of the top 1,000 public high schools in the nation in 2012. QVHS ranks 648th in the nation and is one of 36 Pennsylvania public high schools to make list.

Apple Corporation recently named Quaker Valley High School "An Apple Distinguished School." QVHS is one of only four schools in Pennsylvania to receive this distinction. An Apple Distinguished School is one that has implemented a 21st century vision of education and technology integration in an exemplary way and is willing to share its program with other educators and institutions.

The National Music Makers Foundation, a partnership of leading music and educational organizations, cited Quaker Valley as one of the "Best Communities for Music Education" for a eighth consecutive year in 2012.

Three Quaker Valley teachers were named semi-finalists and one a finalist for Pennsylvania Teacher of the Year 2011.

Typically, 90% of our seniors take the SAT. Recent results place Quaker Valley High School in the top 4% of the 641 high schools in the state. Quaker Valley's composite score is the sixth highest among the 42 suburban districts.

Historically, 90% or more of graduating seniors go on to higher education.

All elementary and middle school students are engaged in the study of fine arts. 76% of Quaker Valley High School students continue to study and participate in some form of fine arts ~ the graphic and visual arts as well as the choral, orchestral, instrumental and theatrical arts – all through a variety of coursework and co-curricular enrichment.

Computers and technology are used as tools to enhance and facilitate learning and assessment. In addition to providing computer instruction and at least one computer lab in each building, every high school student is issued a laptop as a freshman for use at school and home for their four years at QVHS; middle school students are assigned a laptop for use while at school; and computer carts equipped with laptops are available to elementary teachers so that each child has access to a laptop during a class period if needed to support the lesson or curriculum unit.

Additional Information:

Area: 21 square miles

Number of Municipalities: 11

Aleppo Township, Bell Acres Borough, Edgeworth Borough, Glenfield Borough, Glen Osborne Borough, Haysville Borough, Leet Township, Leetsdale Borough, Sewickley Borough, Sewickley Heights Borough, Sewickley Hills Borough

Total Population (2010 Census): 13,934

Enrollment 2011-12 (As of August 2011): 1990

Edgeworth Elementary School (K-5) = 501

Osborne Elementary School (1-6) = 501

Quaker Valley Middle School (7-8) = 292

Quaker Valley High School (9-12) = 667

Other= 29

Ethnic Diversity 2011-12

Caucasian: 86.6%

African American: 5.2%

Multi-Ethnic: 4.8%

Asian: 1.8%

Hispanic: 1.3%

Native American/Alaskan Native: 0.3%

Over the course of the 2011-12 school year, students who qualify for free and reduced lunch ranged between 14-17%.

Businesses and industries within the Quaker Valley School District are comprised of small, privately owned stores and shops, along with two different industrial parks - Leetsdale and Buncher, which consist of heavy industry. Apart from industrial and store ownership, the community is lucky to have Sewickley Valley Hospital which is part of the larger Heritage Valley Health System.

The Quaker Valley School District is rich in community and organizational resources, which have a history of partnering with one another and with the school district. A brief listing of some of our community partners include: YMCA, Sewickley Community Library, Sweetwater Arts Center, Fern Hollow Nature Center, Laughlin Center for Children, Youth Connect, Union Aid, Child Health, Sewickley Valley Heritage Hospital, local ministerium and the network of local preschools with whom the QVSD Early Childhood Liaison Teacher coordinates.

Our students are afforded multiple opportunities for partnerships in learning. For instance, after care at the YMCA with district supported transportation, a Laughlin Center donated tutor at the YMCA for QV students after school, as well as the opportunity for HS students to participate in career exploration and work with local businesses and store owners. Additionally, QVSD and the community partnered three years ago to create a position of Community Youth Worker. While initially supported by grant money, the position is now funded through district, community and grant funding. The position links students to available community resources, helping to secure funding for students when necessary, helping families manage paperwork requirements, and providing general support to families in a "face to face" way out and about in the community. This position also helps to monitor students in a proactive way throughout the afternoon and into evening hours.

For the community, we offer use of our buildings for scouting meetings, QV Recreation Association, enrichment camps and after school programs, and many other programs.

Quaker Valley is also a member of the Sewickley Non-Profit Consortium group, which has banded together to have greater power in securing grants and in sharing responsibility for closing gaps in our community.

Based on focus group and survey results, QVSD clientele are general please with the quality of the school district and are highly involved in the community partnerships that are available. Enrollment in summer programs and after school programs has risen steadily as a result of the combined planning between QVSD and the local community resources listed above.

Planning Committee

Name	Role
Amy Balbach	Middle School Teacher - Special Education
Rose Ann Bergandy	Ed Specialist - School Counselor
Jillian Bichsel	Administrator
Jennifer Bradley	Elementary School Teacher - Regular Education
Margot Bruno	Middle School Teacher - Regular Education
Marianne Cibulas	Secondary School Teacher - Special Education
Kevin Flannery	Community Representative
Eric Gross	Business Representative
Trish Hooper	Business Representative
Sally Hoover	Administrator

Susan Kaminski	Community Representative
R. J. Long	Middle School Teacher - Regular Education
Holly Merriman	Parent
Joan Murdoch	Community Representative
Michael Pastor	Secondary School Teacher - Regular Education
Dana Pecanis	Elementary School Teacher - Regular Education
Kim Tarris	Parent
Carolyn Toth	Business Representative
Leah Wells	Ed Specialist - School Psychologist

Core Foundations

Standards

Mapping and Alignment

Elementary Education – Primary Level

Standards	Mapping	Alignment
Arts and Humanities	Developing	Developing
Career Education and Work	Accomplished	Accomplished
Civics and Government	Non Existent	Non Existent
Economics	Non Existent	Non Existent
English Language Arts	Developing	Developing
Environment and Ecology	Developing	Developing
Family and Consumer Sciences	Non Existent	Non Existent
Geography	Needs Improvement	Needs Improvement
Health, Safety and Physical Education	Accomplished	Accomplished
History	Needs Improvement	Needs Improvement
Literacy in History/Social Studies, Science and Technical Subjects	Developing	Developing
Mathematics	Developing	Developing
Science and Technology	Developing	Developing
Alternate Academic Content Standards for Math	Developing	Developing
Alternate Academic Content Standards for Reading	Developing	Developing
American School Counselor Association for Students	Developing	Developing
Early Childhood Education: Infant-Toddler→Second Grade	Accomplished	Accomplished
English Language Proficiency	Developing	Developing
Interpersonal Skills	Accomplished	Accomplished
School Climate	Accomplished	Accomplished

Explanation for standard areas checked "Needs Improvement" or "Non Existent":

Our elementary social studies program is undergoing revision this year. We will be focusing on a more global, geographic and cultural approach to social studies so students begin to make more connections between themselves, their lives and the world.

Elementary Education – Intermediate Level

Standards	Mapping	Alignment
Arts and Humanities	Developing	Developing
Career Education and Work	Accomplished	Accomplished
Civics and Government	Developing	Developing
Economics	Needs Improvement	Needs Improvement
English Language Arts	Accomplished	Accomplished
Environment and Ecology	Developing	Developing
Family and Consumer Sciences	Developing	Developing
Geography	Needs Improvement	Needs Improvement
Health, Safety and Physical Education	Accomplished	Accomplished
History	Needs Improvement	Needs Improvement
Literacy in History/Social Studies, Science and Technical Subjects	Developing	Developing
Mathematics	Developing	Developing
Science and Technology	Accomplished	Accomplished
Alternate Academic Content Standards for Math	Accomplished	Accomplished
Alternate Academic Content Standards for Reading	Accomplished	Accomplished
American School Counselor Association for Students	Accomplished	Accomplished
English Language Proficiency	Developing	Developing
Interpersonal Skills	Accomplished	Accomplished
School Climate	Accomplished	Accomplished

Explanation for standard areas checked "Needs Improvement" or "Non Existent":

Our elementary social studies program is undergoing revision this year. We will be focusing on a more global, geographic and cultural approach to social studies so students begin to make more connections between themselves, their lives and the world.

Middle Level

Standards	Mapping	Alignment
Arts and Humanities	Developing	Developing
Career Education and Work	Accomplished	Accomplished
Civics and Government	Developing	Developing
Economics	Developing	Developing
English Language Arts	Developing	Developing
Environment and Ecology	Developing	Developing

Family and Consumer Sciences	Accomplished	Accomplished
Geography	Developing	Developing
Health, Safety and Physical Education	Developing	Developing
History	Developing	Developing
Literacy in History/Social Studies, Science and Technical Subjects	Accomplished	Accomplished
Mathematics	Developing	Developing
Science and Technology	Accomplished	Accomplished
Alternate Academic Content Standards for Math	Accomplished	Accomplished
Alternate Academic Content Standards for Reading	Accomplished	Accomplished
American School Counselor Association for Students	Accomplished	Accomplished
English Language Proficiency	Developing	Developing
Interpersonal Skills	Accomplished	Accomplished
School Climate	Accomplished	Accomplished
World Language	Developing	Developing

Explanation for standard areas checked "Needs Improvement" or "Non Existent":

This narrative is empty.

High School Level

Standards	Mapping	Alignment
Arts and Humanities	Developing	Developing
Career Education and Work	Accomplished	Accomplished
Civics and Government	Accomplished	Accomplished
Economics	Accomplished	Accomplished
English Language Arts	Developing	Developing
Environment and Ecology	Accomplished	Accomplished
Family and Consumer Sciences	Accomplished	Accomplished
Geography	Accomplished	Accomplished
Health, Safety and Physical Education	Accomplished	Accomplished
History	Accomplished	Accomplished
Literacy in History/Social Studies, Science and Technical Subjects	Accomplished	Accomplished
Mathematics	Developing	Developing
Science and Technology	Accomplished	Accomplished
Alternate Academic Content Standards for Math	Accomplished	Accomplished
Alternate Academic Content Standards for Reading	Accomplished	Accomplished
American School Counselor Association for Students	Accomplished	Accomplished
English Language Proficiency	Developing	Developing
Interpersonal Skills	Accomplished	Accomplished

School Climate	Accomplished	Accomplished
World Language	Accomplished	Accomplished

Explanation for standard areas checked "Needs Improvement" or "Non Existent":

This narrative is empty.

Adaptations

Elementary Education – Primary Level

No standards have been identified for this content area.

Elementary Education – Intermediate Level

No standards have been identified for this content area.

Middle Level

No standards have been identified for this content area.

High School Level

No standards have been identified for this content area.

Explanation for any standards checked:

This narrative is empty.

Curriculum

Planned Instruction

Elementary Education – Primary Level

Curriculum Characteristics	Status
Content, including materials and activities and estimated instructional time to be devoted to achieving the academic standards are identified.	Developing
Objectives of planned courses, instructional units or interdisciplinary studies to be achieved by all students are identified for each subject area.	Developing
Procedures for measurement of mastery of the objectives of a planned course, instructional unit or interdisciplinary studies are identified.	Developing
The relationship between the objectives of a planned course, instructional unit or interdisciplinary studies and academic standards are identified.	Developing

Processes used to ensure Accomplishment:

Use of lesson plans, curriculum maps, assessment binders and calendar, TASP (Teacher Assessment of Student Progress) data, data teams, observations/walk throughs, professional development, grade level and dept meetings, curriculum council

Elementary Education – Intermediate Level

Curriculum Characteristics	Status
Content, including materials and activities and estimated instructional time to be devoted to achieving the academic standards are identified.	Developing
Objectives of planned courses, instructional units or interdisciplinary studies to be achieved by all students are identified for each subject area.	Developing
Procedures for measurement of mastery of the objectives of a planned course, instructional unit or interdisciplinary studies are identified.	Developing
The relationship between the objectives of a planned course, instructional unit or interdisciplinary studies and academic standards are identified.	Developing

Processes used to ensure Accomplishment:

Use of lesson plans, maps, assessment binders, assessment calendar, TASP data, data teams, observations/walk throughs, professional development, grade level and dept meetings, curriculum council

Middle Level

Curriculum Characteristics	Status
Content, including materials and activities and estimated instructional time to be devoted to achieving the academic standards are identified.	Developing
Objectives of planned courses, instructional units or interdisciplinary studies to be achieved by all students are identified for each subject area.	Developing
Procedures for measurement of mastery of the objectives of a planned course, instructional unit or interdisciplinary studies are identified.	Developing
The relationship between the objectives of a planned course, instructional unit or interdisciplinary studies and academic standards are identified.	Developing

Processes used to ensure Accomplishment:

Use of lesson plans, maps, assessment binders, assessment calendar, TASP data, data teams, observations/walk throughs, professional development, grade level and dept meetings, curriculum council

High School Level

Curriculum Characteristics	Status
Content, including materials and activities and estimated instructional time to be devoted to achieving the academic standards are identified.	Developing
Objectives of planned courses, instructional units or interdisciplinary studies to be achieved by all students are identified for each subject area.	Developing
Procedures for measurement of mastery of the objectives of a planned course, instructional unit or interdisciplinary studies are identified.	Developing
The relationship between the objectives of a planned course, instructional unit or	Developing

interdisciplinary studies and academic standards are identified.	
--	--

Processes used to ensure Accomplishment:

Use of lesson plans, maps, assessment binders, assessment calendar, data teams, observations/walk throughs, professional development, grade level and dept meetings, curriculum council

Modifications and Accommodations

Explain how planned instruction contains modifications and accommodations that allow all students at all mental and physical ability levels to access and master a rigorous standards aligned curriculum.

Students IEP's reflect SDI techniques that ensure the modifications and accommodations to content for identified students. Additionally, RTII teams in elementary and MS help ensure the process with goal-setting, interventions, and measurements for struggling but not identified students. At all levels, teachers have developed a variety of assessments, study guides, homework assignments, projects, and in-class work at various levels of mastery and content development to meet the needs of all learners. Levels of HS classes include academic, concept and intervention, for struggling learners. For high end learners, the district is committed to meeting needs in unique, "one child at a time" fashion, including subject skipping, compacting classes, independent learning contracts, grade skipping, early graduation, double scheduling of classes, access to internships/apprenticeships, and online coursework.

Instruction

Instructional Strategies

- Annual Instructional evaluations
- Formal classroom observations focused on instruction
- Instructional Coaching
- Walkthroughs targeted on instruction

Regular Lesson Plan Review

- Building Supervisors

Provide brief explanation of District's process for incorporating selected strategies.

We currently have a differentiated supervision model that we use to observe and evaluate teachers.

Peer evaluation is not one of our current practices but is something that we have been discussing.

Lesson plan implementation was revised to a new system last year and we will continue to expand how we use lesson plans over the next few years.

Provide brief explanation for strategies not selected and how the District plans to address their incorporation.

Currently, we do not employ instructional coaches. We do have curriculum leaders who may begin to review lesson plans and participate in additional observations but not in a supervisory role. District administration will have access to lesson plans as of the 12-13 school year and so will begin to review those as well.

Responsiveness to Student Needs

Elementary Education – Primary Level

Instructional Practices	Status
A variety of practices that may include structured grouping, flexible scheduling and differentiated instruction are used to meet the needs of gifted students.	Full Implementation
Differentiated instruction is used to meet student needs.	Full Implementation
Flexible instructional time or other schedule-related practices are used to meet student needs.	Full Implementation
Structured grouping practices are used to meet student needs.	Full Implementation

If necessary, provide further explanation. (Required explanation if column selected was <50%, UNK or NA)

Daily 5

Use of Academic specialists and special ed teachers
small group instruction used

Elementary Education – Intermediate Level

Instructional Practices	Status
A variety of practices that may include structured grouping, flexible scheduling and differentiated instruction are used to meet the needs of gifted students.	Full Implementation
Differentiated instruction is used to meet student needs.	Full Implementation
Flexible instructional time or other schedule-related practices are used to meet student needs.	Full Implementation
Structured grouping practices are used to meet student needs.	Full Implementation

If necessary, provide further explanation. (Required explanation if column selected was <50%, UNK or NA)

Daily 5

Use of Academic specialists and special ed teachers
small group instruction used

Middle Level

Instructional Practices	Status
A variety of practices that may include structured grouping, flexible scheduling and differentiated instruction are used to meet the needs of gifted students.	Implemented in 50% or more of district classrooms
Differentiated instruction is used to meet student needs.	Implemented in 50% or more of district classrooms
Flexible instructional time or other schedule-related practices are used to meet student needs.	Implemented in 50% or more of district classrooms
Structured grouping practices are used to meet student needs.	Implemented in 50% or more of district classrooms

If necessary, provide further explanation. (Required explanation if column selected was <50%, UNK or NA)

Use of academic specialists and special ed teachers

Leveled classes

Beginning to use pre-assessment data for groups and to guide instruction

Beginning to use formative assessment to guide instruction

High School Level

Instructional Practices	Status
A variety of practices that may include structured grouping, flexible scheduling and differentiated instruction are used to meet the needs of gifted students.	Implemented in 50% or more of district classrooms
Differentiated instruction is used to meet student needs.	Implemented in 50% or more of district classrooms
Flexible instructional time or other schedule-related practices are used to meet student needs.	Implemented in 50% or more of district classrooms
Structured grouping practices are used to meet student needs.	Implemented in 50% or more of district classrooms

If necessary, provide further explanation. (Required explanation if column selected was <50%, UNK or NA)

Use of academic specialist and special ed teachers

2014 Graduation Specifics

Reading

- Local Assessments aligned with State Standards
- Proficiency on State Assessments

Writing

- Local Assessments aligned with State Standards
- Proficiency on State Assessments

Mathematics

- Local Assessments aligned with State Standards
- Proficiency on State Assessments

2015 and beyond Graduation Requirement Specifics

English Language and Composition

- Completion of Course Work with Keystone Exam as final exam Scoring Proficiency (Stand alone option)
- Students are allowed to test out of required courses.
- Successfully complete Advanced Placement or Independent Baccalaureate Courses including "passing" a course exam.

English Literature

- Completion of Course Work with Keystone Exam as final exam Scoring Proficiency (Stand alone option)
- Students are allowed to test out of required courses.
- Successfully complete Advanced Placement or Independent Baccalaureate Courses including "passing" a course exam.

Mathematics

- Completion of Course Work with Keystone Exam as final exam Scoring Proficiency (Stand alone option)
- Students are allowed to test out of required courses.

- **Successfully complete Advanced Placement or Independent Baccalaureate Courses including "passing" a course exam.**

Science & Technology

- **Completion of Course Work with Keystone Exam as final exam Scoring Proficiency (Stand alone option)**
- **Students are allowed to test out of required courses.**
- **Successfully complete Advanced Placement or Independent Baccalaureate Courses including "passing" a course exam.**

Environment & Ecology

- **Completion of Course Work with Keystone Exam as final exam Scoring Proficiency (Stand alone option)**
- **Students are allowed to test out of required courses.**
- **Successfully complete Advanced Placement or Independent Baccalaureate Courses including "passing" a course exam.**

2017 and beyond Graduation Requirement Specifics

Biology or Chemistry

- **Completion of Course Work with Keystone Exam as final exam Scoring Proficiency (Stand alone option)**
- **Students are allowed to test out of required courses.**
- **Successfully complete Advanced Placement or Independent Baccalaureate Courses including "passing" a course exam.**

American History, Civics/Government or World History

- **Completion of Course Work with Keystone Exam as final exam Scoring Proficiency (Stand alone option)**

- Students are allowed to test out of required courses.
- Successfully complete Advanced Placement or Independent Baccalaureate Courses including "passing" a course exam.

Local Assessments

Standards	WA	TD	NAT	DA	PSW	Other
Arts and Humanities	X	X			X	
Career Education and Work		X			X	X
Civics and Government		X	X			
Economics		X	X			
English Language Arts		X	X	X		
Environment and Ecology		X	X			
Family and Consumer Sciences		X				
Geography		X				
Health, Safety and Physical Education		X				X
History		X	X			
Literacy in History/Social Studies, Science and Technical Subjects		X				X
Mathematics		X	X	X		
Science and Technology		X				X
World Language		X	X			

Methods and Measures

Summative Assessments	EEP	EEI	ML	HS
ERB/CTP4		X	X	
Keystone exams			X	X
PSSA		X	X	X
Project-based assessments	X	X	X	X
Textbook assessments	X	X	X	X
PASA	X	X	X	X
Keystone exams			X	X
PSSA		X	X	X
Project-based assessments	X	X	X	X
Textbook assessments	X	X	X	X
PASA	X	X	X	X
AP Exams				X
PSAT				X
ACCESS for ELLs	X	X	X	X
Benchmark Assessments	EEP	EEI	ML	HS
Study Island benchmark assessments		X	X	X
Writing benchmark assessments	X	X	X	X
Dibels Next	X			
Children's Progress	X			
MAZE	X	X	X	
Formative Assessments	EEP	EEI	ML	HS
Demonstration, performances, products and projects	X	X	X	X
Curriculum based formative assessments	X	X	X	X
Exit tickets	X	X	X	X
Progress monitoring	X	X	X	X
Fitness assessments	X	X	X	X
Works of art, music, etc.	X	X	X	X
Diagnostic Assessments	EEP	EEI	ML	HS
Study Island		X	X	X
Fluency tests	X	X		
RAZ kids	X	X		
DRA2	X	X		
Aims Web	X			
W-APT	X	X	X	X

Validation of Implemented Assessments

Validation Methods	EEP	EEL	ML	HS
Building Supervisor Review	X	X	X	X
Department Supervisor Review	X	X	X	X
District Administration Review	X	X	X	X
External Review				
Instructional Coach Review				
Intermediate Unit Review	X	X	X	X
Professional Learning Community Review				
Teacher Peer Review				

Provide brief explanation of District's process for reviewing assessments.

Principal, district curriculum leader, curriculum leaders all work to review assessment portfolios, develop common assessments, ensure inter-rater reliability of scoring. The district does not employ instructional coaches, nor does the district work with the IU on assessment review.

Development and Validation of Local Assessments

If applicable, explain the District's procedures for developing locally administered assessments and how they are independently and objectively validated every six years.

N/A

Collection and Dissemination

Describe the District's system to collect, analyze and disseminate assessment data efficiently and effectively for use by District leaders and instructional teams.

Building data teams consisting of building and district members review, analyze and disseminate universal screening data conducted done 3 times yearly to students in K-8. Additionally, by department and by grade level, teachers work on common assessments and are required to keep an assessment portfolio that is reviewed by principal and district curriculum administrator. Teachers also map curriculum, which can include assessments and is electronically open across the district.

Data Informed Instruction

Describe how information from the assessments is used to assist students who have not demonstrated achievement of the academic standards at a proficient level or higher.

Data teams

RtII referrals

One to one meeting with counselor and students

Creation of small groups of students to focus on skill building for non-proficient students

Assessment Data Uses

Assessment Data Uses	EEP	EEI	ML	HS
Assessment results are reported out by assessment anchor or standards-aligned learning objective.	X	X	X	X
Instructional practices are identified that are linked to student success in mastering specific assessment anchors, eligible content or standards-aligned learning objectives.	X	X	X	X
Instructional practices modified or adapted to increase student mastery.	X	X	X	X
Specific assessment anchors, eligible content or standards-aligned learning objectives are identified for those students who did not demonstrate sufficient mastery so that teachers can collaboratively create and/or identify instructional strategies likely to increase mastery.	X	X	X	X

Provide brief explanation of District's process for incorporating selected strategies.

After review and analysis of data, teams determine appropriate instructional practices that help students achieve proficiency in each assessment anchor.

Provide brief explanation for strategies not selected and how the District plans to address their incorporation.

For the instructional practices, we currently are not working off a list of "best practices", but we do use our professional judgement to align and differentiate instruction that matches the needs of each student.

Distribution of Summative Assessment Results

Distribution Methods	EEP	EEI	ML	HS
Course Planning Guides				
Directing Public to the PDE & AYP Websites	X	X	X	X
District Website	X	X	X	X
Individual Meetings	X	X	X	X

Letters to Parents/Guardians	X	X	X	X
Local Media Reports	X	X	X	X
Mass Phone Calls/Emails/Letters	X	X	X	X
Meetings with Community, Families and School Board	X	X	X	X
Newsletters	X	X	X	X
Press Releases	X	X	X	X
School Calendar	X	X	X	X
Student Handbook				
Annual report	X	X	X	X

Provide brief explanation of District's process for incorporating selected strategies.
Communications run through the Communications and Development Office of QVSD.

Provide brief explanation for strategies not selected and how the District plans to address their incorporation.

Summative assessment information is not included in student handbooks because that document focuses on day to day management and because it is communicated many other ways. Assessment data is available in multiple other formats for student access.

Safe and Supportive Schools

Assisting Struggling Schools

Describe your entity's process for assisting schools that either do not meet the annual student achievement targets or experience other challenges, which deter student attainment of academic standards at a proficient level or higher.

If your entity has no struggling schools, explain how you will demonstrate continued growth in student achievement.

QVSD will continue the work around curriculum, intervention and professional development to maintain the high level of achievement in the district.

Programs, Strategies and Actions

Elementary Education – Primary Level

- **Biennially Updated and Executed Memorandum of Understanding with Local Law Enforcement**
- **Comprehensive District-wide School Safety and Violence Prevention Plans**
- **Internet Web-based System for the Management of Student Discipline**
- **Peer Helper Programs**
- **Purchase of Security-related Technology**
- **Safety and Violence Prevention Curricula**
- **School-wide Positive Behavioral Programs**
- **Student Codes of Conduct**
- **Student, Staff and Visitor Identification Systems**

Elementary Education – Intermediate Level

- **Biennially Updated and Executed Memorandum of Understanding with Local Law Enforcement**
- **Comprehensive District-wide School Safety and Violence Prevention Plans**
- **Internet Web-based System for the Management of Student Discipline**
- **Peer Helper Programs**
- **Purchase of Security-related Technology**
- **Safety and Violence Prevention Curricula**
- **School-wide Positive Behavioral Programs**
- **Student Codes of Conduct**
- **Student, Staff and Visitor Identification Systems**

Middle Level

- **Biennially Updated and Executed Memorandum of Understanding with Local Law Enforcement**
- **Comprehensive District-wide School Safety and Violence Prevention Plans**
- **Counseling Services for Students Enrolled in Alternative Education Programs**
- **Internet Web-based System for the Management of Student Discipline**
- **Peer Helper Programs**
- **Purchase of Security-related Technology**
- **Safety and Violence Prevention Curricula**
- **School-wide Positive Behavioral Programs**
- **Student Assistance Program Teams and Training**
- **Student Codes of Conduct**
- **Student, Staff and Visitor Identification Systems**

High School Level

- **Biennially Updated and Executed Memorandum of Understanding with Local Law Enforcement**
- **Comprehensive District-wide School Safety and Violence Prevention Plans**
- **Conflict Resolution or Dispute Management**
- **Counseling Services for Students Enrolled in Alternative Education Programs**
- **Internet Web-based System for the Management of Student Discipline**

- Peer Helper Programs
- Placement of School Resource Officers
- Purchase of Security-related Technology
- Safety and Violence Prevention Curricula
- Student Assistance Program Teams and Training
- Student Codes of Conduct
- Student, Staff and Visitor Identification Systems

Explanation of strategies not selected and how the District Plans to address their incorporation:
N/A

Identifying Gifted Students

Describe your entity's process for identifying gifted children.

QV has data-based teams consisting of building and district level members review the universal screenings done 3 times per year to identify high achieving outliers. Additional data reviewed also includes PSAT (mandatory given to 9, 10 and 11 graders and paid for by the district), TASP data (Teacher Assessment of Student Progress - which covers all curricular areas). Instructionally, teachers engage in pretesting by unit/chapter to adjust curriculum accordingly for high achieving students. When data indicate a need for further assessment, Pupil Services department will work with the building team and parent.

Developmental Services

Developmental Services	EEP	EEI	ML	HS
Academic Counseling	X	X	X	X
Attendance Monitoring	X	X	X	X
Behavior Management Programs	X	X	X	X
Bullying Prevention	X	X	X	
Career Awareness		X	X	X
Career Development/Planning		X	X	X
Coaching/Mentoring	X	X	X	X
Compliance with Health Requirements –i.e., Immunization	X	X	X	X
Emergency and Disaster Preparedness	X	X	X	X
Guidance Curriculum	X	X	X	X
Health and Wellness Curriculum	X	X	X	X
Health Screenings	X	X	X	X
Individual Student Planning	X	X	X	X

Nutrition	X	X	X	X
Orientation/Transition	X	X	X	X
RtII	X	X	X	
Wellness/Health Appraisal				
N/A				

Diagnostic, Intervention and Referral Services

Diagnostic, Intervention and Referral Services	EEP	EEI	ML	HS
Accommodations and Modifications	X	X	X	X
Administration of Medication	X	X	X	X
Assessment of Academic Skills/Aptitude for Learning	X	X	X	X
Assessment/Progress Monitoring	X	X	X	X
Casework	X	X	X	X
Crisis Response/Management/Intervention	X	X	X	X
Individual Counseling	X	X	X	X
Intervention for Actual or Potential Health Problems	X	X	X	X
Placement into Appropriate Programs	X	X	X	X
Small Group Counseling-Coping with life situations	X	X	X	X
Small Group Counseling-Educational planning	X	X	X	X
Small Group Counseling-Personal and Social Development	X	X	X	X
Special Education Evaluation	X	X	X	X
Student Assistance Program			X	X
N/A				

Consultation and Coordination Services

Consultation and Coordination Services	EEP	EEI	ML	HS
Alternative Education			X	X
Case and Care Management	X	X	X	X
Community Liaison		X	X	X
Community Services Coordination (Internal or External)	X	X	X	X
Coordinate Plans	X	X	X	X
Coordination with Families (Learning or Behavioral)	X	X	X	X
Home/Family Communication	X	X	X	X
Managing Chronic Health Problems	X	X	X	X
Managing IEP and 504 Plans	X	X	X	X

Referral to Community Agencies	X	X	X	X
Staff Development	X	X	X	X
Strengthening Relationships Between School Personnel, Parents and Communities	X	X	X	X
System Support	X	X	X	X
Truancy Coordination	X	X	X	X
N/A				

Communication of Educational Opportunities

Communication of Educational Opportunities	EEP	EEI	ML	HS
Course Planning Guides				
Directing Public to the PDE & AYP Websites	X	X	X	X
District Website	X	X	X	X
District-wide Phone Calls/Emails/Letters	X	X	X	X
Individual Meetings	X	X	X	X
Letters to Parents/Guardians	X	X	X	X
Local Media Reports	X	X	X	X
Meetings with Community, Families and School Board	X	X	X	X
Newsletters	X	X	X	X
Press Releases	X	X	X	X
School Calendar				
Student Handbook	X	X	X	X
N/A				

Communication of Student Health Needs

Communication of Student Health Needs	EEP	EEI	ML	HS
District Website	X	X	X	X
Individual Meetings	X	X	X	X
Individual Screening Results	X	X	X	X
Letters to Parents/Guardians	X	X	X	X
Meetings with Community, Families and School Board	X	X	X	X
Newsletters	X	X	X	X
School Calendar				
Student Handbook	X	X	X	X
N/A				

Frequency of Communication

Elementary Education – Primary Level

- More than once a month

Elementary Education – Intermediate Level

- More than once a month

Middle Level

- More than once a month

High School Level

- More than once a month

Collaboration for Interventions

Describe the collaboration between classroom teachers and individuals providing interventions regarding differing student needs and academic progress.

Classroom teachers and individuals providing interventions meet frequently (up to daily) when needed and are easily accessible to one another within the same building or via email/texting across the district. Due to the district's small size, teams are typically multi-disciplinary in nature and do not operate as separate silos.

Community Coordination

Describe how the District accomplishes coordination with community operated infant and toddler centers, as well as preschool early intervention programs. In addition, describe the community coordination with the following before or after school programs and services for all grade levels, including pre-kindergarten, if offered, through grade 12.

1. Child care
2. After school programs
3. Youth workforce development programs
4. Tutoring

QVSD utilizes a kindergarten teacher as a preschool liaison who coordinates with local preschool programs and day care centers on issues of educational programming, school expectations, curriculum, readiness, and transition information. Additionally the district communicates and fully participates in all Early Intervention programming. The local YMCA and QVSD have a long-standing relationship whereby services are coordinated, including when feasible, space in QVSD buildings to house Y programming, along with transportation support. QVSD has a Community Youth Worker who specifically works to link students with afterschool services and community programs, supplying information, securing scholarships for needy families and assisting parents with required paperwork requirements. Tutoring

programs are available with QVSD teachers and parents for fee-based as well as afterschool, no-cost PSSA prep and skill building for elementary students. Elementary buildings offer an afterschool no-cost "Hardwork Club" and MS offers "Homework Club." Additionally, Laughlin Center provides a no-cost tutor to the afterschool Youth Program of the YMCA, which is coordinated through the QVSD Community Youth Worker position. Youth workforce development programs occur in QVMS and HS, starting with survey and interest data, portfolio development, and include opportunities for apprenticeships, work site tours, work shadows, Internships and guest speakers on a variety of career and occupation areas. For identified students receiving special education, programs include vocational evaluation, coordination with local agencies such as Project for Freedom and Life's Work along with Project Match and the use of a contracted QVSD worker to help find and coach job opportunities in the local QVSD community.

Preschool Agency Coordination

Explain how the District coordinates with agencies that serve preschool age children with disabilities.

1. Address coordination activities designed to identify and serve children with disabilities and the supports and accommodations available to ensure both physical and programmatic access.
2. Address pre-kindergarten programs operated directly by the District and those operated by community agencies under contract from the District.
3. Describe how the District provides for a smooth transition from the home setting and any early childhood care or educational setting the students attend, to the school setting.

QVSD coordinates fully with the AIU's Early Intervention programs for pre-schoolers with disabilities. The district publishes Annual Notice instructing parents on how to access information and services for preschoolers along with developmental indicators that help signal parents for potential concerns. The district has a history of full team attendance at DART IEP meetings and successfully transitions students in the district along with parents, who participate in a DART Parent Night in February of their child's upcoming school year. Additionally, the district works with local preschool programs to aid those students entry into QVSD by hosting Kindergarten Round Up and offering summer entry/prep programming for needy students as well as a 1-day delayed school start so students can experience and practice school with their parents and do a trial bus ride. QVSD does not operate its own preschool programming at this time.

Materials and Resources

Description of Materials and Resources

Elementary Education - Primary Level

Material and Resources Characteristics	Status
A robust supply of high quality aligned instructional materials and resources available	Accomplished
Accessibility for students and teachers is effective and efficient	Accomplished
Aligned and supportive of academic standards, progresses level to level and demonstrates relationships among fundamental concepts and skills	Accomplished
Differentiated and equitably allocated to accommodate diverse levels of student motivation, performance and educational needs	Accomplished

Provide explanation for processes used to ensure Accomplishment.

Professional development focusing on literacy

Professional development focusing on vertical and horizontal articulation and mapping of curriculum

RtII and Data teams

Coordinated effort among specilaists including nurses, guidance counselors, special ed teachers, reading specialists, curriculum leaders and regular ed teachers

Explanation for any row checked "Needs Improvement" or "Non Existent". How the District plans to address their incorporation:

N/A

Elementary Education - Intermediate Level

Material and Resources Characteristics	Status
A robust supply of high quality aligned instructional materials and resources available	Accomplished
Accessibility for students and teachers is effective and efficient	Accomplished
Aligned and supportive of academic standards, progresses level to level and demonstrates relationships among fundamental concepts and skills	Accomplished
Differentiated and equitably allocated to accommodate diverse levels of student motivation, performance and educational needs	Accomplished

Provide explanation for processes used to ensure Accomplishment.

Professional development focusing on vertical and horizontal articulation and mapping of curriculum

RtII and Data teams

Coordinated effort among specilaists including nurses, guidance counselors, special ed teachers, reading specialists, curriculum leaders and regular ed teachers

Explanation for any row checked "Needs Improvement" or "Non Existent". How the District plans to address their incorporation:

N/A

Middle Level

Material and Resources Characteristics	Status
A robust supply of high quality aligned instructional materials and resources available	Accomplished
Accessibility for students and teachers is effective and efficient	Accomplished
Aligned and supportive of academic standards, progresses level to level and demonstrates relationships among fundamental concepts and skills	Accomplished
Differentiated and equitably allocated to accommodate diverse levels of student motivation, performance and educational needs	Accomplished

Provide explanation for processes used to ensure Accomplishment.

Professional development focusing on vertical and horizontal articulation and mapping of curriculum

RtII and Data teams

Coordinated effort among specilaists including nurses, guidance counselors, special ed teachers, reading specialists, curriculum leaders and regular ed teachers

Explanation for any row checked "Needs Improvement" or "Non Existent". How the District plans to address their incorporation:

N/A

High School Level

Material and Resources Characteristics	Status
A robust supply of high quality aligned instructional materials and resources available	Accomplished
Accessibility for students and teachers is effective and efficient	Accomplished
Aligned and supportive of academic standards, progresses level to level and demonstrates relationships among fundamental concepts and skills	Accomplished
Differentiated and equitably allocated to accommodate diverse levels of student motivation, performance and educational needs	Accomplished

Provide explanation for processes used to ensure Accomplishment.

Professional development focusing on vertical and horizontal articulation and mapping of curriculum

Data teams, including a team specially designed for the 9th gr transition

Coordinated effort among specilaists including nurses, guidance counselors, special ed teachers,, curriculum leaders and regular ed teachers

Explanation for any row checked "Needs Improvement" or "Non Existent". How the District plans to address their incorporation:

N/A

SAS Incorporation**Elementary Education - Primary Level**

Standards	Status
Arts and Humanities	Implemented in 50% or more of district classrooms
Career Education and Work	Implemented in less than 50% of district classrooms
Civics and Government	Implemented in less than 50% of

	district classrooms
Economics	Implemented in less than 50% of district classrooms
English Language Arts	Implemented in 50% or more of district classrooms
Environment and Ecology	Implemented in less than 50% of district classrooms
Family and Consumer Sciences	Implemented in less than 50% of district classrooms
Geography	Implemented in less than 50% of district classrooms
Health, Safety and Physical Education	Implemented in less than 50% of district classrooms
History	Implemented in less than 50% of district classrooms
Literacy in History/Social Studies, Science and Technical Subjects	Implemented in 50% or more of district classrooms
Mathematics	Implemented in 50% or more of district classrooms
Science and Technology	Implemented in less than 50% of district classrooms
Alternate Academic Content Standards for Math	Not Applicable
Alternate Academic Content Standards for Reading	Not Applicable
American School Counselor Association for Students	Implemented in 50% or more of district classrooms
Early Childhood Education: Infant-Toddler→Second Grade	Implemented in 50% or more of district classrooms
English Language Proficiency	Implemented in

	less than 50% of district classrooms
Interpersonal Skills	Implemented in less than 50% of district classrooms
School Climate	Implemented in less than 50% of district classrooms

Further explanation for columns selected "<50%", "UNK" or "NA".

SAS materials and resources will be used as we continue to plan for implementing the PA Common Core Standards and our curriculum mapping work. To ensure familiarity with SAS, principals, curriculum leaders and teachers were trained on how to use the SAS website. Professional development has also been available to teachers on an as needed basis.

Elementary Education – Intermediate Level

Standards	Status
Arts and Humanities	Implemented in 50% or more of district classrooms
Career Education and Work	Implemented in less than 50% of district classrooms
Civics and Government	Implemented in less than 50% of district classrooms
Economics	Implemented in less than 50% of district classrooms
English Language Arts	Implemented in 50% or more of district classrooms
Environment and Ecology	Implemented in less than 50% of district classrooms
Family and Consumer Sciences	Implemented in less than 50% of district classrooms
Geography	Implemented in less than 50% of

	district classrooms
Health, Safety and Physical Education	Implemented in less than 50% of district classrooms
History	Implemented in less than 50% of district classrooms
Literacy in History/Social Studies, Science and Technical Subjects	Implemented in 50% or more of district classrooms
Mathematics	Implemented in 50% or more of district classrooms
Science and Technology	Implemented in less than 50% of district classrooms
Alternate Academic Content Standards for Math	Not Applicable
Alternate Academic Content Standards for Reading	Not Applicable
American School Counselor Association for Students	Not Applicable
English Language Proficiency	Implemented in 50% or more of district classrooms
Interpersonal Skills	Implemented in less than 50% of district classrooms
School Climate	Implemented in less than 50% of district classrooms

Further explanation for columns selected "<50%", "UNK" or "NA".

SAS materials and resources will be used as we continue to plan for implementing the PA Common Core Standards and our curriculum mapping work. To ensure familiarity with SAS, principals, curriculum leaders and teachers were trained on how to use the SAS website. Professional development has also been available to teachers on an as needed basis.

Middle Level

Standards	Status
Arts and Humanities	Implemented in 50% or more of district classrooms

Career Education and Work	Implemented in 50% or more of district classrooms
Civics and Government	Implemented in less than 50% of district classrooms
Economics	Implemented in less than 50% of district classrooms
English Language Arts	Implemented in 50% or more of district classrooms
Environment and Ecology	Implemented in less than 50% of district classrooms
Family and Consumer Sciences	Implemented in less than 50% of district classrooms
Geography	Implemented in less than 50% of district classrooms
Health, Safety and Physical Education	Implemented in less than 50% of district classrooms
History	Implemented in less than 50% of district classrooms
Literacy in History/Social Studies, Science and Technical Subjects	Implemented in 50% or more of district classrooms
Mathematics	Implemented in 50% or more of district classrooms
Science and Technology	Implemented in less than 50% of district classrooms
Alternate Academic Content Standards for Math	Implemented in less than 50% of district classrooms
Alternate Academic Content Standards for Reading	Implemented in

	less than 50% of district classrooms
American School Counselor Association for Students	Implemented in less than 50% of district classrooms
English Language Proficiency	Implemented in 50% or more of district classrooms
Interpersonal Skills	Implemented in less than 50% of district classrooms
School Climate	Implemented in less than 50% of district classrooms
World Language	Implemented in less than 50% of district classrooms

Further explanation for columns selected "<50%", "UNK" or "NA".

SAS materials and resources will be used as we continue to plan for implementing the PA Common Core Standards and our curriculum mapping work. To ensure familiarity with SAS, principals, curriculum leaders and teachers were trained on how to use the SAS website. Professional development has also been available to teachers on an as needed basis.

High School Level

Standards	Status
Arts and Humanities	Implemented in 50% or more of district classrooms
Career Education and Work	Implemented in 50% or more of district classrooms
Civics and Government	Implemented in 50% or more of district classrooms
Economics	Implemented in 50% or more of district classrooms
English Language Arts	Implemented in 50% or more of

	district classrooms
Environment and Ecology	Implemented in 50% or more of district classrooms
Family and Consumer Sciences	Implemented in less than 50% of district classrooms
Geography	Implemented in less than 50% of district classrooms
Health, Safety and Physical Education	Implemented in less than 50% of district classrooms
History	Implemented in less than 50% of district classrooms
Literacy in History/Social Studies, Science and Technical Subjects	Implemented in 50% or more of district classrooms
Mathematics	Implemented in 50% or more of district classrooms
Science and Technology	Implemented in 50% or more of district classrooms
Alternate Academic Content Standards for Math	Implemented in less than 50% of district classrooms
Alternate Academic Content Standards for Reading	Implemented in less than 50% of district classrooms
American School Counselor Association for Students	Implemented in less than 50% of district classrooms
English Language Proficiency	Implemented in 50% or more of district classrooms
Interpersonal Skills	Implemented in less than 50% of district classrooms

School Climate	Implemented in less than 50% of district classrooms
World Language	Implemented in less than 50% of district classrooms

Further explanation for columns selected "<50%", "UNK" or "NA".

SAS materials and resources will be used as we continue to plan for implementing the PA Common Core Standards and our curriculum mapping work. To ensure familiarity with SAS, principals, curriculum leaders and teachers were trained on how to use the SAS website. Professional development has also been available to teachers on an as needed basis.

Current Technology Services

Required for LEA applying for eRate Priority 2 Funding

Describe the District's current telecommunications services, hardware, software and other services used to implement education. What strengths and weaknesses, related to technology, have been identified by staff, students or parents?

Telephony:

Quaker Valley has a carrier-class phone system which provides 4-digit intra-district dialing, voice mail accessible within and outside of the district, call forward, call hold, call transfer, outside calling, user-initiated conferencing calling, speed dial and call logs. The four school buildings and district office subsystems are connected to the core processor via dedicated fiber.

The current system is a reliable digital phone system implementation. The specific installed components will be end-of-life and end-of-support within the next two years. The district is in the process of analysis of existing and emerging telephony technologies, with an objective of replacing the phone system in the summer of 2013. The replacement system will include all of the existing capabilities plus voice mail-to-email capabilities.

Video:

Every classroom has the capability of receiving cable TV over standard coax connections. The two elementary buildings, which were renovated from 2005 to 2007, use CAT 5E cable for the physical transport of TV Signals via CAT 5E to Coax converters. This was a very effective and efficient implementation given the Cable TV services at the time of installation. Since installation, the Cable TV company has changed their signaling and requirements for receiving the signal at the TV. This has an

effect on approximately 20% of the installed TVs. The district is in the process of identifying necessary modifications to the cabling infrastructure to support the current Cable TV company technical requirements.

Data Network:

The district's data network is currently a legacy system that is not scalable and does not support the district's current and future needs. The network is primarily composed of unmanaged switches and is not secure. The district is currently in the process of conducting a network assessment to determine the necessary upgrades and modifications to support the district's current and future needs.

The district's data network is currently a legacy system that is not scalable and does not support the district's current and future needs. The network is primarily composed of unmanaged switches and is not secure. The district is currently in the process of conducting a network assessment to determine the necessary upgrades and modifications to support the district's current and future needs.

The district's data network is currently a legacy system that is not scalable and does not support the district's current and future needs. The network is primarily composed of unmanaged switches and is not secure. The district is currently in the process of conducting a network assessment to determine the necessary upgrades and modifications to support the district's current and future needs.

The district's data network is currently a legacy system that is not scalable and does not support the district's current and future needs. The network is primarily composed of unmanaged switches and is not secure. The district is currently in the process of conducting a network assessment to determine the necessary upgrades and modifications to support the district's current and future needs.

The district's data network is currently a legacy system that is not scalable and does not support the district's current and future needs. The network is primarily composed of unmanaged switches and is not secure. The district is currently in the process of conducting a network assessment to determine the necessary upgrades and modifications to support the district's current and future needs.

The district's data network is currently a legacy system that is not scalable and does not support the district's current and future needs. The network is primarily composed of unmanaged switches and is not secure. The district is currently in the process of conducting a network assessment to determine the necessary upgrades and modifications to support the district's current and future needs.

Professional Education

Characteristics

District's Professional Education Characteristics	EEP	EEI	ML	HS
Empowers educators to work effectively with parents and community partners.	X	X	X	X
Enhances the educator's content knowledge in the area of the educator's certification or assignment.	X	X	X	X
Increases the educator's teaching skills based on effective practice research, with attention given to interventions for struggling students.	X	X	X	X
Provides educators with a variety of classroom-based assessment skills and the skills needed to analyze and use data in instructional decision making.	X	X	X	X

District's Professional Education Characteristics	EEP	EEI	ML	HS
Empowers leaders to create a culture of teaching and learning, with an emphasis on learning.	X	X	X	X
Instructs the leader in managing resources for effective results.	X	X	X	X
Provides leaders with the ability to access and use appropriate data to inform decision making.	X	X	X	X
Provides the knowledge and skills to think and plan strategically, ensuring that assessments, curriculum, instruction, staff professional education, teaching materials and interventions for struggling students are aligned to each other, as well as to Pennsylvania's academic standards.	X	X	X	X

Provide brief explanation of District's process for ensuring these selected characteristics.

The QV district provides relevant professional education for all professional employees. These opportunities range from within building to within district to outside of district. Differentiated, data-driven professional development is provided through a variety of means, including individual professional goals, professional portfolio, and flexible professional development proposals.

Examples of professional development available in the district:

Best practices in literacy - includes guided reading, writing, phonics, phonemic awareness, word blending, etc.

Writing across the curriculum

Technology Academy - web 2.0 tools, collaborative resources, video streaming, etc.

Google Docs training

Additional training is also provided on how to use our mapping tools/data tracker (Performance PLUS)

Provide brief explanation for strategies not selected and how the District plans to address their incorporation.

n/a

Strategies Ensuring Fidelity

- **An implementation evaluation is created, based upon specific expectations related to changes in teacher practice, which is used to validate the overall effectiveness of the professional development initiative.**
- **Clear expectations in terms of teacher practice are identified for staff implementation.**
- **District has an ongoing monitoring system in place (i.e. walkthroughs, classroom observations).**
- **District level has a systemic process that is used to validate whether or not providers have the capacity to present quality professional development.**
- **Every Professional development Initiative includes components that provide ongoing support to teachers regarding implementation.**
- **Professional Development activities are based upon detailed needs assessments that utilize student assessment results to target curricular areas that need further alignment.**
- **Professional Development activities are based upon detailed needs assessments that utilize student assessment results to target instructional areas that need strengthening.**
- **Professional Development activities are developed that support implementation of strategies identified in the District Level Plan.**
- **Professional Education is evaluated to show its impact on teaching practices and student learning.**
- **Using disaggregated student data to determine educators' learning priorities.**

Provide brief explanation of District's process for ensuring these selected characteristics.

Professional development is very much driven by student and teacher need as revealed through surveys, student achievement data, administrative observations, professional development committee surveys, curriculum proposals, and feedback from Curriculum Council. Administrators attend several professional development sessions as their schedule allows. Additionally, teachers, administrators, administrative assistants also get timely professional development on different technology resources available, including use of email, icalendar, entourage, Google Docs, excel, powerpoint/keynote, SAS, emetric, PVAAS, eDirect, Power School, etc.

Provide brief explanation for strategies not selected and how the District plans to address their incorporation.

When providing differentiated professional development to faculties, it is difficult for administrators to attend all sessions. Instead, they support the learning by working with departments on implementation of best practices.

Induction Program

- Inductees will assign challenging work to diverse student populations.
- Inductees will be able to access state curriculum frameworks and focus lesson design on leading students to mastery of all state academic standards, assessment anchors and eligible content (where appropriate) identified in District curricula.
- Inductees will effectively navigate the Standards Aligned System website.
- Inductees will know and apply District endorsed classroom management strategies.
- Inductees will know and utilize school resources that are available to assist students in crisis.
- Inductees will know the basic details and expectations related to District-wide initiatives, practices, policies and procedures.
- Inductees will know the basic details and expectations related to school initiatives, practices and procedures.
- Inductees will know, understand and implement instructional practices validated by the District as known to improve student achievement.
- Inductees will take advantage of opportunities to engage personally with other members of the faculty in order to develop a sense of collegiality and camaraderie.
- Danielson's domains frame the entire three year induction program - planning and prep, classroom environment, instructional delivery, professionalism
- QV's Induction program is differentiated and portfolio-based and focused on the importance of individual growth through critical reflection.

Provide brief explanation of District's process for ensuring these selected characteristics.

All inductees develop a professional portfolio throughout their three years of induction. This portfolio is aligned to Danielson's domains.

Induction program is differentiated and portfolio based, focused on the importance of individual growth through critical reflection

Provide brief explanation for strategies not selected and how the District plans to address their incorporation.

n/a

Needs of Inductees

- Classroom assessment data (Formative & Summative).
- Frequent observations of inductee instructional practice by a coach or mentor to identify needs.
- Frequent observations of inductee instructional practice by building supervisor to identify needs.
- Inductee survey (local, district, intermediate units and national level).
- Information collected from previous induction programs (e.g., program evaluations and second-year teacher interviews).
- Knowledge of successful research-based instructional models.
- Regular meetings with mentors or coaches to reflect upon instructional practice to identify needs.
- Review of inductee lesson plans.
- Review of written reports summarizing instructional activity.
- Standardized student assessment data other than the PSSA.
- Student PSSA data.
- Submission of inductee portfolio.
- Surveys completed after each induction session

Provide brief explanation of District's process for ensuring these selected characteristics.

Our induction program is driven by teacher need, as well as district expectations, professional goals and student achievement data. We also are sure to provide training on the use of our laptops, email system, Power School, Performance PLUS (mapping and data tracking), SAS, etc.

Provide brief explanation for strategies not selected and how the District plans to address their incorporation.

n/a

Mentor Characteristics

- Mentors and inductees must have compatible schedules so that they can meet regularly.
- Mentors must complete mentor training or have previous related experience (e.g., purpose of induction program and role of mentor, communication and listening skills, coaching and conferencing skills, problem-solving skills and knowledge of adult learning and development).
- Pool of possible mentors is comprised of teachers with outstanding work performance.
- Potential mentors have similar certifications and assignments.
- Potential mentors must be willing to accept additional responsibility.
- Potential mentors must have demonstrated ability to work effectively with students and other adults.
- Potential mentors must have knowledge of District/School policies, procedures and resources.
- Potential mentors must model continuous learning and reflection.
- Mentors are compensated and trained and recommended by their building principal, not by a seniority list.

Provide brief explanation of District's process for ensuring these selected characteristics.

The process for mentors being selected involves principal recommendation, rigorous training, and compensation. Mentors are not selected by seniority.

Provide brief explanation for strategies not selected and how the District plans to address their incorporation.

n/a

Induction Program Timeline

Topics	Aug-Sep	Oct-Nov	Dec-Jan	Feb-Mar	Apr-May	Jun-Jul
Accommodations and Adaptations for diverse learners		X				
Assessments			X			
Best Instructional Practices				X		
Code of Professional Practice and Conduct for Educators				X		
Curriculum	X					

Data informed decision making					X	
Instruction				X		
Materials and Resources for Instruction				X		
Safe and Supportive Schools		X				
Standards	X					

If necessary, provide further explanation.

Induction is a three year process where each of these topics are addressed to differing degrees.

Induction is intensive and sustained over a three year period. It is a collaborative, collegial and reflective program that emphasizes professional growth.

Monitoring Evaluating and Induction Program

Identify the procedures for monitoring and evaluating the Induction program.

We collect feedback from mentors and inductees on a regular basis. The professional portfolios are reviewed by the superintendent, assistant superintendent, director of academic services, principals, mentors.

Inductees survey parents and students for feedback that fosters professional growth.

Recording Process

- Building administrator receives, evaluates and archives all school mentor records.
- Completion is verified by the Superintendent on the Application for Level 2 Certification.
- District administrator receives, tallies, and archives all District mentor records.
- Mentor documents his/her inductee's involvement in the program.
- Schools maintain accurate records of program completion and provide a certificate or statement of completion to each inductee who has completed the program.

Special Education

Special Education Students

Total students identified: 253

Identification Method

Identify the District's method for identifying students with specific learning disabilities.

The district employs a discrepancy method for identifying SLD. The district uses an RTII approach that includes data team meetings and universal screenings to help create interventions and progress monitoring for struggling learners but has not applied to be an RTI-approved district in its special education plan.

Enrollment

Review the Enrollment Difference Status. If necessary, describe how your district plans to address any significant disproportionalities.

QVSD does not currently have Enrollment Differences.

Non-Resident Students Oversight

- 1. How does the District meet its obligation under Section 1306 of the Public School Code as the host District at each location?**
- 2. How does the District ensure that students are receiving a free appropriate public education (FAPE) in the least restrictive environment (LRE)?**
- 3. What problems or barriers exist which limit the District's ability to meet its obligations under Section 1306 of the Public School Code?**

At this time, QVSD is not a host district. Accordingly then, there are no current barriers the district encounters.

If QVSD were a host district, concerns about FAPE and LRE would be discussed by the IEP team as they considered strengths and needs and designed a program to help a student make meaningful gain.

Incarcerated Students Oversight

Describe the system of oversight the District would implement to ensure that all incarcerated students who may be eligible for special education are located, identified, evaluated and when deemed eligible, are offered a free appropriate public education (FAPE).

At this time QVSD does not have incarcerated students eligible for special education. If so indicated, QVSD would share communication with the involved agency about the process of Child Find and the district's obligation there in. As needed, permission, procedural safeguards, evaluation and potential IEP processes would be reviewed with the agency and implemented as needed.

Least Restrictive Environment

1. Describe the District procedures, which ensure that, to the maximum extent appropriate, children with disabilities, including those in private institutions, are educated with non-disabled children, and that removal from the regular education environment only occurs when education in that setting with supplementary aids and services, cannot be achieved satisfactorily.
2. Describe how the District is replicating successful programs, evidence-based models, and other PDE sponsored initiatives to enhance or expand the continuum of supports/services and education placement options available within the District to support students with disabilities access the general education curriculum in the least restrictive environment (LRE). (Provide information describing the manner in which the District utilizes site-based training, consultation and technical assistance opportunities available through PDE/PaTTAN, or other public or private agencies.)

FAPE and LRE concerns are addressed by IEP team discussion of student strengths and needs, and in designing a program to help the student make meaningful gains. Students begin in the least restrictive environment as the starting point and move into more restrictive placements if deemed necessary by the IEP team based on data review and student performance. The district's profile from 09-10 Penn Data indicates an inclusion rate of 66%, above the SPP target. Data over a 5 yr trend show that QVSD has high and stable rates of inclusion with 92% of students falling into the two brackets of: (1) 40-79% of time inside of regular classes, and, (2) greater than 79% of time inside regular classes. For the 79% of time and above bracket, QV averages 68%. District staff have been previously trained in the SAS Toolkit to better understand the use of supplementary aids and services.

QVSD has created opportunities with online and hybrid models of instruction that allow for students to work at individualized levels and rates. Students can access online classes while in the bricks and mortar buildings of the district and also blend online learning with traditional in-class attendance and participation. For students in transition planning, QVSD has successfully blended job/career training opportunities with the school day, allowing students to work in various part-time configurations to meet both training and school needs. Special educators participate in curricular trainings with their regular education counterparts which supports their skill in delivering curriculum to their special needs students. This also supports the inclusive efforts of the district, ensuring that both teachers and students are

accessing and supporting general education. Teachers have opportunities via AIU 3 and PaTTAN to attend trainings and the district has brought in trainers as well. The scope of special education practice is wide, and specialty areas such as legal issues, pediatric illness and mental health management all factor into students performance at school. To support this breadth, topics beyond curricular delivery have included presentations by a pediatrician, a child/adolescent psychiatrist, an autism consultant, psychology interns, and the special education attorney for the school district. The district is rich in human resources that support our special educators and our students, including having a nurse in every building, a guidance counselor in every building, and a variety of interns in teaching, counseling and school psychology. All supports are in effect and create a team that provides comprehensive support to help ensure social, academic, behavioral and emotional success in general education.

Behavior Support Services

Provide a summary of the District policy on behavioral support services including, but not limited to, the school-wide positive behavior supports (PBS).

The school district uses School-Wide Positive Behavior Support in both of its elementary schools as well as in the Middle School. The district is currently in year 3 of the model (12-13 school year) and is continuing to participate in training with a consultant from the Allegheny Intermediate Unit. The approach emphasizes the teaching of behaviors as a first step along with practice, reviews of lessons for extra teaching when needed, and acknowledgment systems for meeting expectations rather than responding with a consequence-driven system when students do not display expected behaviors. In select situations, a Functional Behavior Analysis (FBA) may be performed in order to systematically examine an individual student's behaviors and possible functions/contributions to behavior. When individualized behavior plans are put into place for a given student, positive rather than negative interventions, form the basis for the plan. Apart from the individual student and the school-wide approach, additional behavior supports include group counseling for targeted and/or preventive efforts. Examples of group counseling across the district include the following: "Families in Separate Home (FISH) Group," Anger Management, Friendship Group, Social Skill Lunch Bunch, "Stressed Out Students (SOS) Group," Young Women's Group, and Young Men's Group, and Organizational Skills/Strategy Group. Students are also able to access individual counseling via our counselors and psychologists in the district, along with their respective interns. The district also has a cooperative agreement with Holy Family Outpatient Services for the provision of private mental health services in the schools, whereby a mental health therapist is present in CV schools for individual treatment sessions.

Intensive Interagency/Ensuring FAPE/Hard to Place Students

1. If the LEA is having difficulty ensuring FAPE for an individual student or a particular disability category, describe the procedures and analysis methods used to determine gaps in the

continuum of special education supports, services and education placement options available for students with disabilities.

2. Include information detailing successful programs, services, education placements as well as identified gaps in current programs, services, and education placements not available within the LEA. Include an overview of services provided through interagency collaboration within the LEA.
 3. Discuss any expansion of the continuum of services planned during the life of this plan.
1. At this time, the district is not encountering difficulty with Hard to Place students. Should the district experience this, the district would seek to collaborate with AIU and involve interagency planning if necessary.
 2. The district is able to offer a continuum of services from itinerant to full time placement across its special education programs. For those students who are currently placed in APS/PAS sites, all students began services in QV neighborhood schools and were moved to more restricted and specialized services via their IEP team. Two students continued from Early Intervention into APS/PAS schools for their school age transition.
 3. The district's most recent expansion of programs included the development of an elementary life skills support program in order to meet the needs of transitioning Early Intervention students at the time. The program continues to grow with numbers of students, and there is a program currently functioning at each level (high school, middle school and elementary).

Strengths and Highlights

Describe the strengths and highlights of your current special education services and programs.

QVSD has a long history of strong and successful inclusion efforts that work because of the combined efforts of all staff. The majority of our identified students receive services at the itinerant and supplemental levels of support with only 1 student requiring full time level service at this time. The district is also rich with human resources, both in the ranks of our QV staff, as well as having collaborative relationships with community agencies.

Our QV teachers seek to push in and provide co-taught classes; our high school typically offers an average of 10 co-taught classes in a school year. At the Middle School level (gr 6, 7,8) language arts and math are co-taught classes. Paraprofessional support is also available at both the classroom level and as individual support where so decided by an IEP team. Classes that do not have teacher co-taught support often have a paraprofessional available to the classroom. It should be noted that QV's paraprofessional staff is comprised of certified teachers which lends a high level of expertise and education to the support role. Beyond this, however is the strong commitment that all staff bring to the inclusion of special needs students. The story of special education in QVSD is the story at the building level, with our regular

education teachers and our building principals. The district strives to blend and blur distinctions such that best practices are available to all students, not just a few, and understands that all can be educated and benefit from the lessons of inclusion. Counselor, nurses, regular educators, psychology staff and interns and building principals are instrumental to supporting special needs students. Principals, nurses and counselors know our students, fully participate in IEP meetings, support in-service education, strive to make building schedules work for differentiation and inclusion, conduct supportive related services and therapies, and communicate effectively such that there is a committed, articulate team for each student.

The district enjoys collaborative relationships with community partners that seek to support all students, without making distinctions between regular and special education students. Some of our active partners include the following: Sewickley YMCA, offering child care, after-school teen program and Club 5210, a health group devoted to obesity reduction; Laughlin Children's Center, a community based program offering preschool, speech therapy services, individual and family counseling supports, tutoring - including supplying a no-cost tutor to the after school teen Y program - and inservice collaboration with the district; YouthConnect, an area based parent education program supported by QVSD along with private and parochial schools in the area; Sewickley Public Library of the Quaker Valley School District, which employs a Teen Librarian who coordinates with our schools, coming into the schools to help encourage student attendance at afterschool library programs and supports coordinated book fairs; and Staunton Clinic, the local mental health base service unit which is instrumental in supporting our students with psychology/psychiatry services and case management services with personnel often in attendance at team meetings.

Assurances

Safe and Supportive Schools Assurances

The LEA agrees to comply with all requirements of Student Services outlined in Chapter 12, these include:

- Implementation of a comprehensive and integrated K-12 program of student services based on the needs of its students. (in compliance with § 12.41(a))
- Free Education and Attendance (in compliance with § 12.1)
- School Rules (in compliance with § 12.3)
- Collection, maintenance and dissemination of student records (in compliance § 12.31(a) and § 12.32)
- Discrimination (in compliance with § 12.4)
- Corporal Punishment (in compliance with § 12.5)
- Exclusion from School, Classes, Hearings (in compliance with § 12.6, § 12.7, § 12.8)
- Freedom of Expression (in compliance with § 12.9)
- Flag Salute and Pledge of Allegiance (in compliance with § 12.10)
- Hair and Dress (in compliance with § 12.11)
- Confidential Communications (in compliance with § 12.12)
- Searches (in compliance with § 12.14)
- Emergency Care and Administration of Medication and Treatment (in compliance with 35 P.S. § 780-101—780-144)
- Parents or guardians are informed regarding individual survey student assessments and provided a process for refusal to participate (consistent with § 445 of the General Education Provisions Act (20 U.S.C.A. § 1232h) and in compliance with § 12.41(d))
- Persons delivering student services shall be specifically licensed or certified as required by statute or regulation (in compliance with § 12.41(e))
- Development and Implementation of District Wellness Program (in compliance with Public Law 108-265, Section 204)
- Early Intervention Services System Act (11 P.S. § 875-101—875-503)
- Establishment and Implementation of Student Assistance Programs at all of levels of the school system
- Acceptable Use Policy for Technology Resources
- Providing career information and assessments so that students and parents or guardians might become aware of the world of work and career options available.

Special Education Assurances

The Local Education Agency (District) assures that there are local policies and procedures in place that address:

- Implementation of a full range of services, programs and alternative placements available to the school district for placement and implementation of the special education programs in the school district.
- Implementation of a child find system to locate, identify and evaluate young children and children who are thought to be a child with a disability eligible for special education residing within the school district's jurisdiction. Child find data is collected, maintained and used in decision-making. Child find process and procedures are evaluated for its effectiveness. The District implements mechanisms to disseminate child find information to the public, organizations, agencies and individuals on at least an annual basis.
- Assurances of students with disabilities are included in general education programs and extracurricular and non-academic programs and activities to the maximum extent appropriate in accordance with an Individualized Education Program.
- Compliance with the PA Department of Education, Bureau of Special Education's report revision notice process.
- Following the state and federal guidelines for participation of students with disabilities in state and district-wide assessments including the determination of participation, the need for accommodations, and the methods of assessing students for whom regular assessment is not appropriate.
- Assurance of funds received through participation in the medical assistance reimbursement program, ACCESS, will be used to enhance or expand the current level of services and programs provided to students with disabilities in this local education agency.

24 P.S. §1306 and §1306.2 Facilities

There are no facilities.

Least Restrictive Environment Facilities

There are no facilities.

Needs Assessment

Record School Patterns

Question:

After reviewing school level accomplishments and systemic challenges, what patterns can you identify among your schools?

What other information do you still need to assess?

Answer:

N/A; "If your district does not have schools in School Improvement, Corrective Action or Making Progress, or it has not required any other schools within the district to complete the School Level Accomplishments and Systemic Challenges, please proceed to the District Level Accomplishments and Concerns."

QVSD has no schools in School Improvement or Corrective Action or Making Progress.

District Accomplishments

Accomplishment #1:

AP success

Accomplishment #2:

PSAT as mandatory for 9th and 10th

Accomplishment #3:

AYP all around

Accomplishment #4:

rate of college bound graduates

Accomplishment #5:

strength of RTII program

Accomplishment #6:

School-Wide Positive Behavior Support Initiative

Accomplishment #7:**PVAAS growth in certain areas****Accomplishment #8:****Data driven systems****Accomplishment #9:****Personal Projects K-12****Accomplishment #10:****Music Dept/Musical theater award****District Concerns****Concern #1:****Math curriculum****Concern #2:****ELA (with special focus on writing) curriculum****Concern #3:****Improve communication (internal and external)****Prioritized Systemic Challenges****Systemic Challenge #1 (System #1)** Establish a district system that fully ensures consistent implementation of standards aligned curricula across all schools for all students.**Aligned Concerns:****Math curriculum****ELA (with special focus on writing) curriculum****Systemic Challenge #2 (System #2)** Establish a district system that fully ensures the consistent implementation of effective instructional practices across all classrooms in each school.

Aligned Concerns:

Math curriculum

ELA (with special focus on writing) curriculum

Systemic Challenge #3 (System #9) Establish a district system that fully ensures each member of the district community promotes, enhances and sustains a shared vision of positive school climate and ensures family and community support of student participation in the learning process.

Aligned Concerns:

Improve communication (internal and external)

District Level Plan

Action Plans

Goal #1: 1. Develop understanding of and align math maps to the Common Core standards

Related Challenges:

- Establish a district system that fully ensures consistent implementation of standards aligned curricula across all schools for all students.

Indicators of Effectiveness:

Type: Summative

Data Source: Curriculum maps are completed and aligned to the Common Core standards

Specific Targets: Professional development will be offered throughout the year to help teachers develop an understanding of the changes in the Common Core as compared with the PA standards.

Type: Formative

Data Source: Lesson plans begin to reflect Common Core language and mathematical practices

Specific Targets: Review of lesson plans

Type: Summative

Data Source: Review of assessment portfolios to determine Webb's DOK within assessment questions

Specific Targets: Assessment questions will reflect Webb's DOK

Strategies:

Common Assessment within Grade/Subject

Description: WWC reports the effective use of data can have a positive impact upon student achievement; using common assessments to inform teacher practice is one such use of data. (Source:

http://ies.ed.gov/ncee/wwc/pdf/practice_guides/dddm_pg_092909.pdf) Teacher

Moderation: Collaborative Assessment of Student Work and Common Assessments provide detailed looks at the development and use of common assessments. (Sources:

http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/Teacher_Moderation.pdf and *Common Assessments: Mike Schmoker. (2006) Results Now: How We Can Achieve Unprecedented Improvements in Teaching and Learning. Alexandria, Va.: ASCD.*)

SAS Alignment: Assessment, Instruction

Substantial Professional Development

Description: The Southwest Regional Educational Laboratory found that substantial professional development showed a positive impact upon student achievement (substantial = greater than 14 hours of focused professional development delivered via workshops or summer institutes, supported by follow-up sessions and all delivered by professional developers rather than train-the-trainer approaches). (Source: http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel_2007033.pdf)
SAS Alignment: Instruction

Curriculum Mapping

Description: Empirical evidence of a positive statistical correlation of the use of curriculum mapping with student achievement is scarce. There was a 2001 study by the Indiana Center of Evaluation conducted for the Ohio DOE that determined curriculum alignment (defined as curriculum mapping with subsequent change in instructional practice) was the "single greatest factor in achieving improved test scores." The following link provides a list of resources supporting the positive contributions of curriculum mapping to educational processes:
<http://www.curriculummapping101.com/materials/curriculum-mapping-research> ; the following link provides an overview of curriculum mapping:
http://en.wikipedia.org/wiki/Curriculum_mapping
SAS Alignment: Standards, Materials & Resources

Action Steps:

Professional development in the math CC

Indicator of Implementation:
 Expert from the AIU will be working with our teachers to understand and begin to implement the Common Core standards and mathematical practices.
Start Date: 10/17/2012 **End Date:** 5/31/2013
Program Area(s): Professional Education
Supported Strategies: None selected

Develop common assessments

Indicator of Implementation:
 Teachers will write common assessments using test questions from SAS and other resources.
Start Date: 10/18/2012 **End Date:** 5/31/2013
Program Area(s): Professional Education
Supported Strategies: None selected

Curriculum mapping

Indicator of Implementation:

Math curriculum maps will be aligned to the Common Core

Start Date: 10/18/2012 End Date: 5/31/2013

Program Area(s): Professional Education

Supported Strategies: None selected

Goal #2: 2. Develop understanding of and align ELA maps to the Common Core standards (with a specific focus on writing in the elementary and middle levels)

Related Challenges:

- Establish a district system that fully ensures consistent implementation of standards aligned curricula across all schools for all students.

Indicators of Effectiveness:

Type: Summative

Data Source: PSSA

Specific Targets: PSSA writing scores will improve

Type: Formative

Data Source: Teachers will work with literacy specialist to gain understanding of Common Core standards, incorporate them into lesson plans

Specific Targets: Lesson Plans

Type: Formative

Data Source: Professional development through AIU

Specific Targets: Teachers will attend extensive professional development on best practices in writing and the Common Core

Strategies:

Common Assessment within Grade/Subject

Description: WWC reports the effective use of data can have a positive impact upon student achievement; using common assessments to inform teacher practice is one such use of data. (Source:

http://ies.ed.gov/ncee/wwc/pdf/practice_guides/dddm_pg_092909.pdf) Teacher

Moderation: Collaborative Assessment of Student Work and Common Assessments provide detailed looks at the development and use of common assessments. (Sources:

http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/Teacher_Moderation.pdf and **Common Assessments: Mike Schmoker. (2006) Results Now: How We Can Achieve Unprecedented Improvements in Teaching and Learning. Alexandria, Va.: ASCD.)**

SAS Alignment: Assessment, Instruction

Substantial Professional Development

Description: The Southwest Regional Educational Laboratory found that substantial professional development showed a positive impact upon student achievement (substantial = greater than 14 hours of focused professional development delivered via workshops or summer institutes, supported by follow-up sessions and all delivered by professional developers rather than train-the-trainer approaches). (Source: http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel_2007033.pdf)

SAS Alignment: Instruction

Curriculum Mapping

Description: Empirical evidence of a positive statistical correlation of the use of curriculum mapping with student achievement is scarce. There was a 2001 study by the Indiana Center of Evaluation conducted for the Ohio DOE that determined curriculum alignment (defined as curriculum mapping with subsequent change in instructional practice) was the “single greatest factor in achieving improved test scores.” The following link provides a list of resources supporting the positive contributions of curriculum mapping to educational processes:

<http://www.curriculummapping101.com/materials/curriculum-mapping-research> ; the

following link provides an overview of curriculum mapping:

http://en.wikipedia.org/wiki/Curriculum_mapping

SAS Alignment: Standards, Materials & Resources

Action Steps:

Professional development in ELA CC and writing

Indicator of Implementation:

Teachers will have participated in professional development, as well as worked with our literacy specialist on understanding the CC and learning best practices for teaching writing.

Start Date: 10/17/2012 **End Date:** 5/31/2013

Program Area(s): Professional Education

Supported Strategies: None selected

Curriculum mapping

Indicator of Implementation:

Curriculum maps will be updated, aligned and entered into the mapping system

Start Date: 10/18/2012 **End Date:** 5/31/2013

Program Area(s): Professional Education

Supported Strategies: None selected

Develop common assessments

Indicator of Implementation:

Common assessments and practices will be developed and implemented

Start Date: 10/18/2012 End Date: 5/31/2013

Program Area(s): Professional Education

Supported Strategies: None selected

Goal #3: Establish a district system that fully ensures each member of the district community promotes, enhances and sustains a shared vision of positive school climate and ensures family and community support of student participation in the learning process.

Indicators of Effectiveness:

Type: Formative

Data Source: Building and district level communications to parents and community

Specific Targets: Parent and community feedback to buildings and district indicating improved communication exchanges.

Strategies:

Improve communications

Description:

Based on recommendations from parents and community, buildings and district will increase the types and frequency of communications regarding school curriculum, extracurricular activities and school/district performance.

SAS Alignment: None selected

Action Steps:

Improve communications

Indicator of Implementation:

Feedback from parents and community regarding information sharing and exchange of information opportunities.

Start Date: 10/18/2012 End Date: 5/31/2013

Program Area(s):

Supported Strategies: None selected

Affirmations

We affirm that this District Level Plan was developed in accordance, and will comply with the applicable provisions of 22 Pa. Code, Chapters 4, 12, 14, and 16. We also affirm that the contents are true and correct and that the plan was placed for public inspection in the school district/AVTS offices and in the nearest public library until the next regularly scheduled meeting of the board or for a minimum of 28 days whichever comes first.

We affirm that the responses in the Professional Education Core Foundations and the Professional Development Action Steps focus on the learning needs of each staff member to enable all staff members meet or exceed the Pennsylvania academic standards in each of the core subject areas.

We also affirm our understanding that any requests for any deviations from the Chapter 14 regulations, standards, policies, and procedures must be made in writing to the Pennsylvania Department of Education. The school district understands that the Special Education Component of the District Level Plan will be approved by PDE in accordance with the following criteria as set forth in 22 Pa. School Code § 14.104 and as part of the District Level Plan:

- 1. There are a full range of services, programs and alternative placements available to the school district for placement and implementation of the special education programs in the school district.**
- 2. The school district has adopted a child find system to locate, identify and evaluate young children and children who are thought to be a child with a disability eligible for special education residing within the school district's jurisdiction. Child find data is collected, maintained, and used in decision-making. Child find process and procedures are evaluated for its effectiveness. The school district implements mechanisms to disseminate child find information to the public, organizations, agencies, and individuals on at least an annual basis.**
- 3. The school district has adopted policies and procedures that assure that students with disabilities are included in general education programs and extracurricular and non-academic programs and activities to the maximum extent appropriate in accordance with an Individualized Education Program.**
- 4. The school district will comply with the PA Department of Education, Bureau of Special Education's revision notice process.**
- 5. The school district follows the state and federal guidelines for participation of students with disabilities in state and district-wide assessments including the determination of participation, the need for accommodations, and the methods of assessing students for whom regular assessment is not appropriate.**
- 6. The school district affirms the Pennsylvania Department of Education that funds received through participation in the medical assistance reimbursement program, ACCESS, will be used to enhance or expand the current level of services and programs provided to students with disabilities in this local education agency.**

No signature has been provided

School Board President

No signature has been provided

Chief School Administrator



QUAKER VALLEY HIGH SCHOOL PROGRAM OF STUDIES 2014-2015

COMPLIANCE STATEMENT

It is the policy of the Quaker Valley School District not to discriminate on the basis of race, sex, religion, color, national origin, age, handicap or limited English proficiency in its educational programs, services, facilities, activities or employment policies as required by Title IX of the 1972 Educational Amendments, Title VI and VII of the Civil Rights Act of 1964, as amended, Section 504 Regulations of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, Section 204 Regulations of the 1984 Carl D. Perkins Act or any applicable federal statute.

For information regarding programs, services, activities, and facilities that are accessible to and usable by handicapped persons or for inquiries regarding civil rights compliance, contact: Quaker Valley School District, 100 Leetsdale Industrial Drive, Suite B, Leetsdale, PA 15056; or the Director of the Office of Civil Rights, Department of Health, Education and Welfare, Washington, D.C.

Table of Content

LETTER FROM THE PRINCIPAL	iii
ADMINISTRATION	iv
MISSION OF THE SCHOOL DISTRICT	v
INTRODUCTION	vi
HONORS PERSONAL PROJECT	vi
COURSE LEVELS	vi
HONORS COURSES	vi
ADVANCED PLACEMENT	vi
COLLEGE IN HIGH SCHOOL COURSES	vi
GLOBAL SCOLARS CREDENTIAL	vi-viii
SPECIAL EDUCATION	ix
ARENA SCHEDULING	ix
CUSTOMIZED CURRICULAR ALTERNATIVES	ix
PROCEDURES REGARDING SECONDARY AND POST-SECONDARY COURSES TAKEN AT OTHER INSTITUTIONS	x
DEMONSTRATING PROFICIENCY	x
DUAL ENROLLMENT	x
QV eLEARNING/QVO	x
COURSE TITLES	1, 2
ART	3
ENGLISH AND COMMUNICATION SKILLS	8
FAMILY AND CONSUMER SCIENCES	18
INSTRUCTIONAL TECHNOLOGY	19
MATHEMATICS	23
MUSIC	28
HONORS PERSONAL PROJECT	31
PHYSICAL EDUCATION/WELLNESS	32
PRE-ENGINEERING AND TECHNOLOGY	34
SCIENCE	36
SOCIAL STUDIES	42
WORLD LANGUAGE	49
VOCATIONAL-TECHNICAL PROGRAMS	54
COURSE PLANNING GUIDE	60

Quaker Valley High School

The mission of Quaker Valley High School is to graduate socially responsible and academically skilled individuals who are self-directed, critical thinkers prepared to function in a global society, by continually shaping an ambitious and varied curriculum with high academic, artistic, and ethical standards, coupled with practical experiences gained in school and community.

Dear Students:

The Quaker Valley High School faculty and administration have prepared the 2014-2015 Program of Studies to assist you and your parents in the process of course selection. You will find a wide array of required and elective courses. Your teachers, guidance counselor, office of collegiate affairs director, and principal are available to assist you with goal setting and appropriate course selection as you move toward graduation. You are strongly encouraged to discuss your goals and course options with these individuals and your parents prior to scheduling.

Arena scheduling, a highly personalized process that enables you to create your own schedule according to your specific needs and goals, takes place in April of each school year. Long before the arena takes place, however, you will begin the preliminary planning process, using the scheduling grid/worksheet provided by your guidance counselor. Subsequently, you will make course selections on PowerSchool. Your conscientious work during the pre-arena process beginning in January is necessary to ensure that adequate sections of each course are made available when all students schedule in the spring.

On behalf of the faculty and staff of Quaker Valley High School, we wish you the very best success as you plan your future. We look forward to working with you throughout your high school career.

Sincerely,

Mr. Andrew Surloff
Principal

Quaker Valley School District

Mission of the School District

The mission of the Quaker Valley School District is to excel at educating students to become knowledgeable, self-directed, lifelong learners, and ethical, responsible citizens.

Belief Statements

We believe that . . .

- All people want to learn; all people can learn. Every individual has a unique combination of abilities and attributes that when recognized, nurtured, and challenged promote the realization of potential.
- Learning is a lifelong process.
- Young people are valued, contributing members of society.
- Communities that invest in youth prosper.
- Respect for self and others promotes a sense of community and an environment conducive to learning.
- Knowledge, competence, and interpersonal skills are critical for success.
- Quality is achievable in all aspects of the educational process.
- Education is a partnership among home, school, and community.

Introduction

Honors Personal Project

Students are required by Quaker Valley School Board Policy and the Pennsylvania Department of Education to complete a Personal Project before graduation. The project is to be completed in 10th grade during Trimesters 1 and 2 (see course descriptions). This one credit course is graded utilizing the Quaker Valley High School grading scale. Students must receive a passing grade in order to meet the Quaker Valley School Board Policy graduation requirements. The successful completion of the Personal Project will fulfill the graduation requirement. Students who receive a C+ or higher will get credit for the honors personal project.

Course Levels

The educational program at Quaker Valley High School provides comprehensive educational programs for students with varied academic needs and interests. Subjects taught at the high school are offered at various levels as follows:

- 3000 Courses demanding high performance standards necessary to prepare for post-secondary education (most sections of English, social studies, math, science, and foreign language)
- 4000 Honors and/or Advanced Placement courses
- 8000 Elective courses (In the scheduling process, preference is usually given first to senior requests, then juniors, etc.)
- 8900 College in High School courses
- 9000 Courses offered at Parkway West Career and Technical Center on a half-day basis as a complement to Quaker Valley's academic program.

Honors Courses

Most classes are in the 3000 or 8000 series. Courses in the 4000 series exceed the curricular scope, intellectual depth, and instructional pacing of comparable courses in the 3000 series. Honors courses carry an added value of .04 for grades of C+ or better.

Advanced Placement

These college level courses require students to meet high standards for success. They require reading and writing skills at a superior level as well as abilities to analyze, synthesize, evaluate, and create. Students selecting these courses must be highly motivated, self-directed learners. AP courses carry an added value of .06 for grades of C+ or better. All students enrolling in AP courses **are required** to take the Advanced Placement exam for that course.

College in High School Courses

Courses offered through the College in High School (CHS) program provide students the opportunity to earn college credit at affiliated institutions while taking courses at Quaker Valley High School. Students will receive an added value of .06 for completing a College in High School course with a grade of C+ or better. Students who choose to pursue college credit will be assessed a fee for the course. The fees are approximately \$175. In addition, students may be responsible for the cost of texts and supporting software. Students may elect to take a CHS course for high school credit only, at no cost.

Global Scholars Credential

While all Quaker Valley High School students will matriculate through a relevant, globally focused curriculum that emphasizes 21st Century skill development, students who wish to independently explore global topics in more depth may opt to earn a Global Scholars Credential. To earn the credential, students will be required to do the following:

- Complete three courses (4.5 Credits) of World language study in the same language at the high school level. In order to reach a high level of proficiency, students must either study the same language for all three courses (at the high school), or they can opt to study a language at the high school level for two courses, and then complete a course that focuses on a Less Commonly Taught Language. (*LCTLs*).

Students must complete the required coursework:

4 Years/Courses of English

4 Years/Courses of Social Studies

3 Years/Courses of Math (4 Courses are highly recommended)

3 Years/Courses of Science (4 Courses are highly recommended)

- 5 Credits of the coursework listed above must be comprised of the specifically identified Global Scholars Courses and students must earn a B- or better in each course.
- 4.5 Credits of World Language (detailed above)
- 4 Courses of Global Scholars Electives (Of the four courses, students must take at least one elective course in the Science and Technology category and at least one course in the Arts and Expression category)
- Independently participate in a series of global enrichment experiences (50 credits) and demonstrate learning through a portfolio of works. Experiences may include, but are not limited to: study abroad, global dual-enrollment coursework, global enrichment workshops, videoconferences, seminars or study groups.

Identified Global Scholars Courses Core Courses:

21st Century English

CHS Argument, Communication, Rhetoric

AP English

9th and 10th grade Language Arts

Global Civics

World History (all levels)

Economics/Entrepreneurship

International Relations

Politics

AP European History

AP Macroeconomics

Biology (all levels)

Environmental Biology

Global Electives

Art and Expression Electives

8813 Ceramics I (.5)

8818 Ceramics II (.5)

8817 Sculpture (.5)

8842 Metals and Jewelry (.5)

8812 Beginning Drawing + Painting (.5)

8841 Intermediate Drawing + Painting (.5)

8816 Advanced Drawing + Painting (.5)

8837 Introduction to Digital Imaging (.5)

8838 Introduction to Computer Illustration (.5)

8839 Advanced Digital Imaging (.5)

8840 Advanced Computer Illustration (.5)

8843 3D Design and Animation (.5)

4810 AP Studio Art (1.5)

Music

- 8799 Honors Band (1.5)
- 8798 Concert Band (1.5)
- 8802 String Orchestra (1.5)
- 8803 Concert Choir (1.5)
- 8822 Music Theory (1.0)
- 8807 History of Popular Music (.5)
- 8808 Keyboard Lab (.5)
Band/Chorus (3.0)
- 8795 Stage Lighting and Sound (.5)
- 4820 AP Music Theory (1.5)

Language Arts

- 8101 Introduction to Journalism (.5)
- 8101 Mythology (.5)

Technology/Science electives

- 3703 Introduction to Web Design (.5)
 - 3704 Advanced Web Design (.5)
 - 3706 Introduction to Networking (.5)
 - 3708 Introduction to Java Programming (1.5)
 - 3709 Technology Literacy (.5)
 - 5801 Cisco Academy (1.5)
 - 8600 Exploring Technology (.5)
 - 8602 Robotics (.5)
 - 8603 Transportation Technology (.5)
 - 3315 Honors Research Science (1.0)
 - 3318 Ethical Issues in Science (.5)
- Or a 4th year of Science can count as an elective.

Other Global Electives

- 8220 Criminal & Civil Law (.5)



Denotes an identified Global Scholar course

Special Education

Parents of students who suspect that their child has a disability and is in need of special education may request a multidisciplinary team evaluation of their child through a written request to the building principal or director of pupil services. For additional information pertaining to special education services, please refer to the Quaker Valley School District website at www.qvdsd.org or contact the school counseling office at 412-749-6014.

Arena Scheduling

Arena scheduling at Quaker Valley High School is a highly personalized process that enables students to create their own schedules according to their priorities, preferences, specific needs, and goals. The arena scheduling format, unlike computerized scheduling, engages students and their teachers and counselors in rich discussion and joint decision making, as students create their individual schedules within the framework of a pre-determined master schedule. The design of the master schedule is based on information gathered from students and teachers during the pre-registration phase.

Pre-registration is a process that takes place during students' English classes, with guidance counselors assisting students as they complete the scheduling worksheet grid that is later transferred by the student to PowerSchool. Data from PowerSchool are collected and reviewed by teachers and counselors, and any errors or discrepancies are resolved. The accuracy of the information we obtain during pre-registration is vital to the creation of a quality master schedule.

Occasionally, a student will request a course for which he/she does not have the current teacher's endorsement. Typically this occurs when a student's performance in the prerequisite course does not meet the minimum standard required for the course requested. In such cases, the student and his/her parent may comply with the teacher's recommendation or request a **Team Review Meeting** with the teacher, guidance counselor, and principal or designee, to review the placement recommendation. To override the teacher's recommendation, the student and parent are required to sign a waiver, thereby assuming full responsibility for the choice and accepting the potential consequences of this action. The team review meeting and waiver process facilitate open and frank communication between parents, students, and teachers. This process assures that students and parents clearly understand the basis of the teacher's recommendation, and that students have reasonable access to all courses.

Our first priority with regard to scheduling students is to ensure that graduation requirements are met in a timely manner. For this reason, the arena is organized to accommodate seniors first, followed by juniors, and so on. Within each grade, report rooms are drawn by lottery to determine the order in which students attend the arena. Exceptions to this sequence include certain priority groups, as determined by the building principal, such as band and orchestra, and students with disabilities. Such students may be scheduled in advance of their grade level peers.

The arena takes place in the spring of each school year. One report room of approximately twenty students attends the arena at a time, accompanied by the report room teacher. The arena is well staffed with teachers from each department, guidance counselors, and office of collegiate affairs director, all of whom assist students throughout the process. While students in the lower grades may not get their first choice electives, they will have future opportunities to access those classes, and regardless of grade level, no student will be denied the appropriate core academic course required. At the conclusion of the arena, each student leaves with a copy of his/her tentative schedule. The official copy is mailed to the student in the summer, prior to the start of the school year. Since ample time and guidance are provided to students long before this point, and given that most courses are full by this time, counselors will not change individual schedules. Only the principal may authorize a change to a student's schedule, when absolutely necessary, assuming the requested course is not full.

Customized Curricular Alternatives

Recognizing the unique interests and ambitions of our high school students, we employ a variety of modifications, when necessary, to meet the needs of each learner. These may include adaptations to course requirements, modifications to a student's schedule, and/or adjustments to instructional time and place. A student who wishes to explore alternatives to his/her current course of study is encouraged to see a teacher, a guidance counselor, the secondary academic specialist, or the principal.

Procedures Regarding Secondary and Post-Secondary Courses Taken at Other Institutions

Secondary Level Courses

With the pre-approval of the principal, students may enroll in secondary level courses at other educational institutions for purposes of:

1. Remediation
2. Advancing their studies so that they can move to a higher level in a subject area
3. Accessing courses or programs not available in the school

In such cases, when the student is in 9th grade or beyond, the credit may be noted as part of the student's record, and the student will be appropriately advanced at Quaker Valley High School if he/she has earned a grade of C or better. A second transcript will identify the course and grade earned. These courses will be applied toward graduation requirements; however, they will not be included in grade point average calculations.

Remediation courses must provide 60 hours of instruction for a full credit course.

Demonstrating Proficiency

Students who wish to receive credit for Quaker Valley High School courses by demonstrating proficiency must follow procedures outlined in Section 205.02 of the School Board Policy of Quaker Valley. Criteria for meeting various course standards are available through the principal's office. Students who wish to seek credit for a course by demonstrating proficiency must inform the principal in writing at least one week prior to the start of the course so that appropriate arrangements may be made for testing and reviewing work. When a student successfully completes course work in this manner, he/she shall be awarded credit toward high school graduation with a "P" (pass) grade. This information will be included on a transcript and be noted as "credit by demonstration of proficiency." The student will be eligible for placement in the next level of the course if he or she demonstrates the prerequisite competencies.

Dual Enrollment

Students may explore opportunities to take classes at nearby colleges and universities, and some colleges such as Penn State Beaver and LaRoche offer high school students a discounted rate. With the pre-approval of the principal, dual enrollment is offered to enhance the opportunities available to our students, not to replace Quaker Valley High School courses within the Program of Studies. Some college courses will allow the student to earn both both high school and college credit simultaneously.

The college or university issues grades directly to the dual enrolled student; however, grades earned through dual enrollment are not included in the calculation of the Quaker Valley High School grade point average. Students are responsible for requesting transcripts from the college or university for their records. Students should contact their guidance counselor or the Director of Collegiate Affairs for more information.

QV eLearning/QVO

Quaker Valley eLearning provides high quality, flexible educational opportunities, which include access to relevant academic and exploratory content, to all Quaker Valley students. The purpose of these opportunities is to enhance the learning experiences of all students and to develop the skills necessary to compete in a global society. Student participation in eLearning is based upon the individual needs of the student and is subject to the eLearning approval process. Students who elect to participate fully or partly in eLearning as Quaker Valley Students remain members of our learning community and thus have access to all activities and services available to all Quaker Valley students. As Quaker Valley eLearners, all students taking online courses are also subject to policies and procedures outlined in the student handbook.

Students interested in participating in Quaker Valley eLearning opportunities must participate in the eLearning request and enrollment process. The student's counselor, principal, and academic team will determine the appropriateness of the request and make recommendations to the student based upon the student's academic needs or career plans as to the suitability of an online enrollment. Students are advised to contact their school counselor for direction should they have an interest in QV eLearning opportunities. Quaker Valley Online (QVO) courses are subject to the Online Course Withdrawal Policy. Students who enroll in online courses have 10 days to drop without penalty. If a student drops a course after 10 days, a grade of "WF" and the credit value of the course will appear on his or her transcript. Parents and students are required to read and sign-off on the policy prior to enrolling in an online course.

QVO courses may be scheduled as one of the six periods of the day or as an additional credited class beyond the school day. Online instructors provide content, assignments, feedback, and tests that are monitored by Quaker Valley teachers. Students are required to stay in contact with their online instructor and should notify the QV teacher if they are experiencing difficulty with the online instructor. Students join virtual classmates from all over the country in discussions, peer editing, and other collaborative activities via the laptop computers. All students enrolled AP online courses **are required** to take the associated Advanced Placement Examination for the enrolled course. Students will be issued a grade based on performance throughout the course that will be added to the official transcript along with credit. Students taking AP courses who earn a grade of C+ or higher will receive an added value of .06 into the GPA. Enrollment slots are limited. A review team, headed by the principal, will determine student placement into these courses.

Course Titles

Art

- 8813 Ceramics I (.5)
- 8818 Ceramics II (.5)
- 8817 Sculpture (.5)
- 8842 Metals and Jewelry (.5)
- 8812 Beginning Drawing & Painting (.5)
- 8841 Intermediate Drawing & Painting (.5)
- 8816 Advanced Drawing & Painting (.5)
- 8837 Introduction to Digital Imaging (.5)
- 8838 Introduction to Computer Illustration (.5)
- 8839 Advanced Digital Imaging (.5)
- 8840 Advanced Computer Illustration (.5)
- 8843 3D Design and Animation (.5)
- 4810 AP Studio Art (1.5)
- 4807 AP Art History (1.0)

English and Communication Skills

- 3108 English 9 (1.5)
- 4108 Honors English 9 (1.5)
- 3195 English 10 (1.5)
- 4110 Honors English 10 (1.5)
- 3111 English 11 (1.0)
- 4111 Honors English 11 (1.0)
- 8116 21st Century English (.5)
- 8117 Science Fiction Literature (.5)
- 8118 Elements of Humor (.5)
- 8119 Documentary Writing and Production (.5)
- 8122 Sports Literature (.5)
- 8910 CHS Argument, Communication & Rhetoric (1.0)
- 4113 AP English Literature (1.5)
- 4114 AP English Language and Composition QVO (1.5)
- 8108 Mythology (.5)
- 8109 How to Read a Film (.5)
- 8113 Creative Writing (.5)
- 8123 Adv. Creative Writing (.5)
- 8115 Literature on the Stage Theatre I (.5)
- 8121 Literature on the Stage Theatre II (.5)
- 8120 Film Writing and Production (.5)
- 3115 Language Arts I (1.0)
- 3116 Language Arts II (1.0)
- 3100 Standards Based Reading (.5)

Family and Consumer Sciences

- 8701 Foods I (.5)
- 8708 Cooking Essentials (.5)

Instructional Technology

- 3706 Intro to Networking (.5)
- 3703 Intro to Web Design (.5)
- 3704 Adv Web Design (.5)
- 3709 Technology Literacy (.5)
- 3708 Intro to Java Program (1.5)
- 5801hv Cisco Academy QVO (1.5)
- 5803hv Engineering Design I QVO (.75)
- 5702hv Game Design QVO (.75)
- 5802hv AP Computer Science QVO (1.5)

Mathematics

- 3400 Standards Based Math (.5)
- 3403 Pre-Algebra (1.5)
- 3406 Integrated Math I (1.5)
- 3420 Integrated Math II (1.5)
- 3432 Integrated Math III (1.5)
- 3421 Algebra II (1.5)
- 4421 Honors Algebra II (1.5)
- 3411 Functions, Statistics & Trigonometry (1.5)
- 4410 Honors Functions, Statistics and Trigonometry (1.5)
- 3412 Precalculus & Discrete Math (1.5)
- 4408 Honors Precalculus (1.5)
- 4412 AP Calculus (AB) (1.5)
- 4415 AP Calculus (BC) (1.5)
- 8913 CHS Calculus (1.5)
- 8405 Statistics (1.5)
- 4413 AP Stats QVO (1.5)

Music

- 8799 Honors Band (1.5)
- 8798 Concert Band (1.5)
- 8802 String Orchestra (1.5)
- 8803 Concert Choir (1.5)
- 8822 Music Theory (1.0)
- 8808 Keyboard Lab (.5)
- 8795 Stage Lighting and Sound (.5)
- 4820 AP Music Theory (1.5)

Honors Personal Project

- 5008 Honors Personal Project (1.0)

Physical Education/Wellness

- 8005 Health & Wellness I (.5)
- 8006 Health & Wellness II (.5)
- 80010 Physical Education (.5)

Pre-Engineering Technology

- 8600 Exploring Technology (.5)
- 8602 Robotics (.5)
- 8603 Transportation Technology (.5)
- 8604 CADD (.5)
- 8605 Construction Technology/Stage Design (.5)

Science

- 3308 Environmental Biology (1.5)
- 3307 Principles of Biology (1.5)
- 3309 Biology (1.5)
- 4309 Honors Biology (1.5)
- 3311 Chemistry (1.5)
- 3306 Integrated Physical Science (1.0)
- 3314 Conceptual Physics (1.0)
- 3313 Physics (1.5)
- 3315 Honors Research Science (1.0)
- 3318 Ethical Issues in Science (.5)
- 4310 Honors Chemistry (1.5)
- 4311 AP Biology (1.5)
- 4312 AP Chemistry (1.5)
- 4316 AP Physics I (1.5)
- 5303hv AP Environmental Science (1.5)

Social Studies

- 3208 Global Civics (1.0)
- 3210 World History (1.0)
- 4210 Honors World History (1.0)
- 4209 AP World History (1.5)
- 3211 U.S. History (1.0)
- 4211 Honors U.S. History (1.0)
- 4212 AP U.S. History (1.5)
- 3213 Economics (.5)
- 8210 International Relations Theories (.5)
- 3212 Politics (.5)
- 4213 AP European History (1.5)
- 8211 Introduction to Psychology (.5)
- 4350 AP Psychology (1.0)
- 8220 Criminal and Civil Law (.5)
- 8860 Modern History through Pop Culture (.5)
- 4214 AP US Government & Politics QVO (.75)
- 4215 AP Macroeconomics QVO (.75)
- 4216 AP Microeconomics QVO (.75)

World Language

- 3525 French I (1.5)
- 3528 French II (1.5)
- 3529 French III (1.5)
- 4520 Honors French IV (1.5)
- 4314 AP French (1.5)
- 3510 German I (1.5)
- 3530 German II (1.5)
- 3545 German III (1.5)
- 4525 Honors German IV (1.5)
- 3544 Spanish II (1.5)
- 3541 Spanish III (1.5)
- 4503 Honors Spanish IV (1.5)
- 4512 AP Spanish (1.5)
- 5501hv Mandarin Chinese (1.5)

Career Technical Center Programs*

- 9911-9913 Auto Body Repair I-III
- 9914-9916 Auto Technology I-III
- 9920-9922 Construction Tech Cluster I-III
- Cluster consists of:**
- Building Construction Technology
- Electrical Systems Technology
- HVAC
- Masonry
- 9929-9931 Cosmetology I-III
- 9968-9970 Culinary Arts I-III
- 9923-9925 Digital Multimedia I-III
- 9947-9949 Health Assistant I-III
- 9932-9934 Information Technology Essentials I-III
- 9977-9979 Public Safety Tech I-III
- 9987-9989 Veterinary Technology I-III
- 9938-9940 Welding Technology

*The courses listed above are taken at Parkway Career & Technical Center. CTC programs are 4.5 credits.

QVO—Quaker Valley Online

Art

The art curriculum is designed to bring about a basic understanding of art and to broaden the cultural horizons of students. It seeks to have students appreciate art as a basic human activity/response that deepens understanding of one's self and one's world.

The curriculum offers both a sequence of courses that develops artistic skills and individual courses that focus on awareness and exploration. This balance creates opportunities for all students. Portfolio development should be an ongoing activity as students move through the program.

8813 CERAMICS I Grades 9 – 10 .5 credit/1 Trimester



Prerequisite: None

Objectives: Students will learn basic techniques in this entry-level three-dimensional class focusing on the medium of clay.

Description: This is the first course for students interested in pursuing 3-D artwork. This course is the pre-requisite for all other 3-D courses and must be taken sequentially. Students will learn basic hand-building and wheel construction techniques. Students will also explore texture, glazing and other decorative techniques. Students will learn basic terminology in relationship to ceramics. Students will study ceramics in terms of art historical context, aesthetics and art criticism.

Expectations: Students will complete all projects related to hand-building techniques; complete at least one project using the potter's wheel; learn glazing, texturing, and other surface techniques; keep a developmental workbook; and research in an area of focus.

8818 CERAMICS II Grades 10 -12 .5 credit/1 Trimester



Prerequisite: Ceramics I

Objectives: Students will learn advanced techniques and conceptual approaches in this second section of ceramics focusing on the medium of clay.

Description: This is the second course for students interested in pursuing ceramic artwork. Students will explore more advanced hand-building and wheel construction.

8817 SCULPTURE Grades 10 – 12 .5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will build on their knowledge of 3-D form learned in ceramics and explore other media used to create sculpture, beginning to build a 3-D repertoire.

Description: Students should have completed ceramics with a foundational understanding of hand building. Students will continue exploring various media and its conceptual and functional potential. Students will develop a fundamental understanding of moving from 2-D to 3-D. Students will have the opportunity to develop their personal relationship with sculpture as a vehicle for conceptual thinking. Students will participate in class critiques and discussions.

Expectations: Students will use a variety of media as a vehicle for conceptual ideas. Students will learn about sculptural methods, techniques, past and current artists whose main medium is sculpture. Students will keep a developmental workbook.

8842 METALS AND JEWELRY
Grades 11 – 12
.5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will continue to build on their knowledge of 3-D media to create their own conceptual work.

Description: Students should have completed ceramics I and sculpture and be prepared to continue to work with metal to explore its conceptual and functional potential. Students will be introduced to basic metalsmithing techniques including jewelry making and enameling.

Expectations: Students will use metals as a vehicle for conceptual ideas. Students will explore a variety of more advanced techniques and media including metalsmithing and enameling. Students will keep a developmental workbook and participate in class critiques.

8812 BEGINNING DRAWING & PAINTING
Grades 9 – 10
.5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will build on their knowledge of the Elements and Principles of Art in this entry level two-dimensional class focusing on drawing and painting media.

Description: This is the first course for students interested in two-dimensional work. This course is the prerequisite for all other two-dimensional art courses and must be taken sequentially. Students will demonstrate an understanding of terms related to painting and drawing and develop more advanced skills in those areas. Students will learn about techniques and how to apply the medium in a conceptual way through hands-on exploration and the introduction to art in the context of history, aesthetics, and criticism.

Expectations: Students will review and develop a deeper understanding of the Elements and Principles of Art; complete drawing assignments; complete painting tasks in watercolor, acrylic, and exploration in oil mediums; students will keep a developmental workbook.

8841 INTERMEDIATE DRAWING & PAINTING
Grades 10 – 12
.5 Credit/1 Trimester



Prerequisite: Beginning Drawing and Painting

Objectives: Students will build on their knowledge of drawing and painting media with a variety of techniques and 2-D media.

Description: This course builds on terms and use of media related to two-dimensional work explored in drawing and painting. Students will explore a variety of media including printmaking. Students will begin to develop their own personal voice in art making using a variety of two-dimensional media building on conceptual thinking.

Expectations: Students will complete all drawing, painting and other 2-D media assignments. Students will keep a developmental workbook. Students will participate in class critiques and discussions.

8816 ADVANCED DRAWING & PAINTING
Grades 11 -12
.5 Credit/1 Trimester



Prerequisite: Beginning Drawing and Painting and Intermediate Drawing and Painting

Objectives: Students will continue to build on the knowledge learned in Two-Dimensional Art focusing on a variety of media to create their own conceptually based work.

Description: This course continues to build on terms and use of media related to two-dimensional work previously explored. Students will begin to develop portfolios of their artwork incorporating a variety of media. Students will continue to develop their own personal voice in art making using a variety of media to explore and build upon conceptual thinking. Students will learn advanced techniques and concepts through hands-on exploration and the study of art in the context of art history, aesthetics, and criticism.

Expectations: Students will complete all drawing, painting and other 2-D media assignments. Students will keep a developmental workbook; participate in class critiques, and begin to build a portfolio of artwork.

8837 INTRODUCTION TO DIGITAL IMAGING

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will be introduced to digital imaging and will learn how to use imaging software and hardware.

Description: Introduction to Digital Imaging is an entry-level class in the art of working with digital imagery. Students learn use to software such as Adobe Photoshop and hardware devices such as digital cameras and scanners in addition to using Photoshop's tools, manipulating digital images, create selections, and repair photographs. They will also learn about contemporary digital artists, how graphics are created on computers, and how Photoshop is used in the industry. **This class is offered on a rotating schedule.**

Expectations: Students will be able to use a digital camera, scanner, and software to edit photographs. They will be able to make accurate selections and use the basic tools and functions of the software.

8838 INTRODUCTION TO COMPUTER ILLUSTRATION

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will learn how to create artwork on the computer using a vector based illustration program.

Description: Introduction to Computer Illustration will be an entry-level class in creating artwork on the computer. Students will be using computers, scanners, and other tools to create vector-based drawings using software such as Adobe Illustrator. Students will learn basic Illustrator tools and techniques as they create drawings for a variety of applications such as advertising and the web. Students will examine different types of computer illustration from comics and fashion design to technical illustration. **This class is offered on a rotating schedule.**

Expectations: Students will be able to use the basic tools and menus in the software to create original works. Students will have an understanding of basic graphic arts concepts.

8839 ADVANCED DIGITAL IMAGING

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: Intro. to Digital Imaging

Objectives: Students will learn advanced techniques for working with digital images.

Description: Students taking Advanced Digital Imaging will continue to learn the intricacies of Adobe Photoshop and will learn the more advanced techniques and tools. Students will explore how to create styles, custom shapes, patterns, animated gifs, composite images, and typography. They will be creating more complex images for use on the web or in print and will create a digital portfolio of their work.

Expectations: Students will be able to use the software tools to create more advanced works. They will be proficient at making selections and will be able create their own custom tools.

8840 ADVANCED COMPUTER ILLUSTRATION

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: Intro. to Computer Illustration

Objectives: Students will continue to learn how to use the software to create original vector artwork.

Description: Advanced Computer Illustration will focus on honing the students Illustrator skills. They will learn to use and create custom brushes, patterns, styles, envelopes, and filters. They will learn to incorporate files from Photoshop and other programs and will create a digital portfolio of their work. **This class is offered on a rotating schedule.**

Expectations: Students will complete all projects and will demonstrate a better understanding of the tools and processes of the graphics arts.

8843 3D DESIGN AND ANIMATION

Grades 9-12

.5 Credit/1 Trimester



Prerequisite: None

Objectives: Students will learn how to create 3D graphics and animation.

Description: 3D Design and Animation will be a course to introduce students to the concepts and software used to create 3 dimensional environments. 3D design and animation is used heavily in today's movies, video games, engineering, and architecture. Students will learn how to create 3D objects, apply colors and textures, and animate the object.

Expectations: Students will understand the concepts of 3D animation and design

4810 AP STUDIO ART

Grade 12

1.5 Credits/3 Trimesters



Prerequisite: All students enrolled in AP level course must have completed previous courses from the art sequence and/or have permission from the instructor.

Objectives: Students will develop a body of 25 + works. The goal of the course is to create a portfolio for submission to the College Board for college credit. The AP Studio portfolio consists of 3 sections, the breadth section – comprised of teacher driven assignments, the concentration section – comprised of an area of conceptual focus chosen for exploration by the student, and the quality section – comprised of 5 works that represent the students' best work.

Description: AP Studio Art is an in-depth, advanced level course focused on the creation of a portfolio for the College AP portfolio examination. The course is a full year course focusing on the three sections of the portfolio: breadth, concentration, and quality in the student's chosen area of focus. Students will be expected to produce a minimum of 25 high quality pieces for the portfolio with the expectation of the completion of 4 finished works completed over summer break. Students are also required to keep a sketchbook. Students will participate in some type of field study (i.e. local field trip to an art museum) to further augment their knowledge of the arts. Students will participate in group and individual critiques. Students will achieve a high understanding of both criticism and aesthetics and apply it to their work and others. This advanced level course allows for the growth of students not only technically but also conceptually in their chosen area of focus.

Expectations: Students will complete a portfolio of no less than 25 works of art in a chosen area of concentration; participate in class critiques and discussion; keep a sketchbook, and participate in all field and group activities.

4807 AP ART HISTORY
Grades 11-12
1.0 Credits/2 Trimesters



Prerequisite: None

Objectives: Students will...

- Apply fundamental art and art historical terminology
- Develop an appreciation for the process of making and displaying art
- Understand the purpose and function of art
- Develop the ability to analyze works of art in context of historical evidence and interpretation, examining such issues as politics, religion, patronage, gender, and ethnicity.
- Understand the cross-cultural and global nature of art.
- Develop the ability to perform higher order thinking skills and articulate visual and art historical concepts in verbal and written forms.

Description: This course will engage students at the same level as an introductory college art history survey class. This class will involve critical thinking and students will develop an understanding and knowledge of diverse historical and cultural contexts of architecture, sculpture, painting and other media. In this course, students examine and critically analyze major forms of artistic expression from the past and the present from a variety of cultures. Art history emphasizes understanding how and why works of art function in context, considering such issues as patronage, gender and the functions and effects of works of art.

Expectations: The course does not require prior knowledge of art history, or the desire to major in art history in college. It requires a high degree of commitment to academic work and to the purposes of a program designed to meet college standards. Students who have done well in other humanities, such as history and literature, or in any of the studio arts, are especially encouraged to enroll.

English and Communication Skills

Honors English Course Expectations (4000 Level Courses)

Reading expectations

- **Prerequisite reading skills:** Students will be expected to read and comprehend texts independently. They will be quizzed on these readings and will be expected to recall and comprehend the readings with minimal teacher intervention.
- Literature selections will be challenging in terms of readability, vocabulary, and length. Literature study will focus on analyzing, synthesizing, and evaluating and will assume the student is able to comprehend and interpret texts independently.
- Students are required to read the equivalent of at least **six** major works during this course. In addition, they will read pieces of shorter fiction, non-fiction, and poetry.

Writing expectations

- **Prerequisite writing skills:** Students are expected to be able to write an essay that is focused, and uses specific support and elaboration. These essays should also be clearly organized and structured including effective topic sentences, transitions, introduction, and conclusion. Students are also expected to use a variety of sentence types and lengths in their writing, and show a mastery of basic writing conventions such as mechanics, usage, and grammar. Writing instruction will build on these skills and focus on enhancing style and voice.
- Students will complete the equivalent of a **minimum of six formal writings** during this course. In addition, students will complete an average of **one to two informal writing assignments per week**.

Other expectations

- Students are required to possess a consistent and positive work ethic and the ability to work independently. Students are also expected to be well organized and able to manage their time efficiently.
- Participation in daily discussions and oral presentations is an integral part of this course. Each six-week grade includes an assessment of student participation in class discussions.
- Students are required to complete **at least 4-6 hours of work per week** outside of the regular school day.

English Course Expectations (3000 Level Courses)

Reading expectations

- Students are required to read and comprehend texts studied in class.
- Literature study will focus on comprehending, interpreting, analyzing, synthesizing and evaluating.
- Students are required read the equivalent of at least **four** major works during this course. In addition, they will read pieces of shorter fiction, non-fiction, and poetry.
- Students are encouraged to read a summer reading selection from the Sewickley Area Libraries (SAL) summer reading list.

Writing expectations

- Students will be taught to create essays that are focused, and use specific support and elaboration. These essays will also be clearly organized and structured including effective topic sentences, transitions, introduction, and conclusion. Students will also learn to use a variety of sentence types and lengths in their writing, and show a mastery of basic writing conventions such as mechanics, usage, and grammar.
- Students will complete the equivalent of a minimum of **four formal writings** during this course. In addition, students are required to complete at least **one informal writing assignment each week.**

Other expectations

- Students will possess a consistent and positive work ethic. Students are also expected to be well organized and able to manage their time efficiently.
 - Students are expected to participate in daily discussions and oral presentations.
 - Students will complete an average of 2-3 hours of work per week outside of the regular school day.
-

3108 ENGLISH 9 **Grade 9** **1.5 Credits/3 Trimesters**

Prerequisite: English 8

Objectives: 1. To emphasize the writing process; 2. to write in both personal and expository forms; 3. to develop students' appreciation and understanding of literature and its relevance to their lives; 4. to review skills in grammar, usage and vocabulary; 5. to develop critical thinking skills through discussion; 6. to prepare students for the PSSA writing assessment and the SAT writing assessment.

Description: This course focuses on helping students develop their skills in the different strands of English such as writing, reading, literary analysis, speaking, listening, organization, vocabulary, and grammar.

Writing assignments will encompass various modes and assessments including the PSSA writing rubric. A special emphasis will be placed on preparation for the PSSA in writing. Multicultural readings will combine classic, contemporary, and adolescent literature with articles from magazines, newspapers, or the Internet. Critical reading skills will be covered, along with traditional literary concepts. Students will participate in discussions and asked to be attentive, support claims, and summarize points. Vocabulary and grammar will be addressed through targeted mini-lessons and applied through writing.

Expectations: Students will maintain a writing folder in which they include examples of the writing process from drafting through a final edited version. They will read both in class and independently a number of novels throughout the year. They will develop and practice critical thinking skills through their daily assignments and assessments.

4108 HONORS ENGLISH 9 **Grade 9** **1.5 Credits/3 Trimesters**

Prerequisite: Honors English 8 (Fast track) or recommendation of teacher from preceding year.

Objectives: 1. To develop confidence and proficiency in the writing process; 2. to develop critical reading and thinking skills; 3. To appreciate literature by examining themes and styles, and by exploring literature's relevance to our world. 4. to prepare students for the PSSA writing assessment and the SAT writing assessment.

Description: This course focuses on developing the knowledge and skills necessary for students to excel in writing, critical reading and thinking, and literary analysis. Students will employ the writing process to write in various modes for various audiences, with an emphasis on analytical writing. Students will employ active reading skills to question the author, the text, and themselves. In addition to exploring the forms, ideas, devices, and language of literature, students will read and analyze thematically and stylistically related essays and articles. Higher order thinking will be stressed throughout the year.

Expectations: Students will maintain a writing folder and notebook. Student writing will reflect a high measure of effort, creativity, clarity, and ownership. Students should be prepared to read sophisticated, challenging pieces with a critical eye and engage in student-driven learning, collaborative activities, and class discussions.

3195 ENGLISH 10
Grade 10
1.5 Credits/3 Trimesters

Prerequisite: English 9

Objectives: 1. To refine students' basic skills in reading comprehension and writing; 2. To develop students' critical thinking skills and approaches to learning; 3. To expand students' appreciation of literature and its relevance to their lives.

Description: This course focuses on reinforcing and further developing competency in writing, reading, literary analysis, speaking and listening, organization, vocabulary, and grammar. Writing assignments will add subtlety and sophistication to the basic PSSA modes. A variety of articles and literature will be chosen to develop higher order critical reading skills and knowledge of literary concepts. Students will participate in discussions and other forms of communication in which they are asked to be attentive, support claims, and summarize and evaluate points made by others. Each student will maintain a three-ring binder with tabbed sections to organize handouts, notes, and work. Vocabulary and grammar skills will be addressed through targeted mini-lessons and applied through writing.

Expectations: Students will maintain a writing folder, journal, reading log, skills log, and notebook. Students will be responsible for completion of all assigned readings. Students will work productively in class by themselves and with others and regularly complete overnight and long-term homework assignments.

4110 HONORS ENGLISH 10
Grade 10
1.5 Credits/3 Trimesters

Prerequisite: Honors English 9 and fulfillment of honors requirement

Objectives: Students will be able to: 1. analyze and interpret literature by examining elements of setting, plot, character, conflict, style, motif, and theme. Literary terms and style descriptors will be emphasized. 2. demonstrate advanced skills in the PSSA Writing Domains of Focus, Content, Organization, Style, and Conventions. Elaboration, clarity, and conciseness will be emphasized. 3. determine main idea (stated or implied), organizational structure, and writer's purpose, audience, tone, and bias in articles and essays; 4. employ higher-order thinking in solving problems related to language.

Description: This course is an advanced, comprehensive study of English: literary analysis, composition, and reading comprehension, with mini-lessons on problem areas in grammar and vocabulary. Literary selections represent an array of genre and time periods. Writing assignments will cover persuasive, informational, reflective, and narrative modes, as well as shorter writing-to-learn pieces. Creative pieces (poems, stories, plays) may be included. Thematically and stylistically relevant articles and essays will be drawn primarily from current periodicals.

Expectations: Students should have a genuine interest in language and literature. They will be expected to read challenging works critically and write with precision and sophistication. Students must maintain an organized binder and be able to work independently and collaboratively.

3111 ENGLISH 11
Grade 11
1 Credit/2 Trimesters

Prerequisite: English 10

Objectives: 1. To introduce students to the literature of America; 2. to improve students' thinking and writing skills through creative writing, essay writing, and discussion; 3. to reinforce students' public speaking and oral communication skills; 4. to review grammar, usage, and vocabulary as necessary for reading, writing, and speaking.

Description: The course concentrates on American literature, emphasizing the necessity for reading, thinking, and responding critically in both speaking and writing. Novels and drama are the focus of small and large group activities, reader's theatre, write-to-learn responses, and longer essays.

Expectations: Students are expected to recognize and apply basic literary concepts--plot, theme, conflict, character--and move on to more sophisticated understandings of authors' styles. Longer creative writings and essay writing are produced to practice full development of ideas as well as appropriate grammar and usage. Students regularly present to the class, both formally and informally. Vocabulary study, which helps students to prepare for the SAT, emphasizes using words in context.

4111 HONORS ENGLISH 11
Grade 11
1 Credit/2 Trimesters

Prerequisite: Honors English 10 and fulfillment of honors requirement

Objectives: 1. To recognize the cultural, political, and social values raised by American literature; 2. to refine skills in literary criticism, research, and documented analysis; 3. to practice appropriate conventions of language in speech and writing, reviewing vocabulary, grammar, and usage through composition.

Description: Students will read extensively in a variety of genres and develop skills in close literary analysis. Writings will include in-class timed responses to readings, longer critical papers, formal arguments, editorials, creative writings, and documented research project. Students will also present formal speeches, teach the class, and participate in workshops and reader's theatre.

Expectations: Students will be expected to apply a range of techniques of literary criticism in their analyses. Writings will go beyond description of theme and plot to recognition of authors' stylistic strategies. Students will participate actively in class through student teaching, skits, debates, oral presentations, and cooperative group assignments. Each student will read biography, major works, and criticism related to a major author, then produce a documented research paper.

8116 21st CENTURY ENGLISH
Grade 12
.5 Credit/1 Trimester



Objectives: 1. To understand what challenges and opportunities result from the rapid changes of the 21st century, and to equip students to respond appropriately to these changes; 2. To refine writing and speaking skills by being aware of purpose and audience.

Description: This course will focus on communication—specifically writing, as well as speaking, listening, and reading—skills necessary to survive and thrive in the competitive 21st Century. Appropriate use of technology will be stressed, with topics ranging from investigating source validity to using proper online etiquette. Selections from full-length nonfiction works and multicultural novels/memoirs will round out the reading requirements for the course and help boost students' global awareness. Discussion and collaboration opportunities will allow students to enhance their “soft skills” and prepare for their future careers.

Expectations: Some of the writing includes resumes, personal statements, emails, digital posts, formal letters, proposals, and essays. Students will participate in interviews, speeches, literature circles, group presentations, and whole class discussions, and they will read current articles that relate to daily lessons.

(This course is mandatory unless taking AP English or CHS Arg. Comm and Rhet)

8117 SCIENCE FICTION LITERATURE
Grade 12
.5 Credit/1 Trimester

Prerequisite: English 11

Objectives: 1. To recognize science fiction as a distinct literary genre; 2. To examine the evolution of science fiction from dime novels to the Internet; 3. To interpret science fiction's insights about human nature and society; 4. To evaluate the literary qualities and style of science fiction; 5. To explore the appeal and impact of science fiction.

Description: This course will focus on the definition, message, method, and impact of science fiction. Students will read critically acclaimed literature and thematically related articles, explore issues on the Internet, and scrutinize the genre in popular culture. Through writing, online exchanges, and classroom discussions and presentations, students will share their findings and viewpoints regarding this unique and powerful genre.

Expectations: Students are expected to read two science fiction novels, expand their vocabularies with scientific terms and knowledge of their word parts, write creatively and analytically, contribute to online discussion boards without using messaging shortcuts, work in groups, and utilize technology to research and present information and viewpoints.

8118 ELEMENTS OF HUMOR

Grade 12

.5 Credit/1 Trimester

Prerequisite: English 11

Objectives: 1. To analyze and evaluate various theories of humor; 2. To compare and contrast basic genres of humor, including the presence or absence of social consciousness; 3. To correlate narrower types of humor to the genres they typically inhabit; 4. To recognize and utilize specific devices of humor

Description: This course will explore the fundamentals of comedy. What makes people laugh and why? Is there a theory of humor that connects all varieties of comedy? What are the effects of humor on the individual and society? Students will be exposed to school appropriate novels and other readings, standup, and excerpts from radio, film and television that exemplify the theories, genres, types, and devices of humor covered in class.

Expectations: Students will respond to humorous works through class discussions, journals, essays, and quizzes. Students will demonstrate content knowledge by creating and sharing humorous works of their own, utilizing specific concepts and techniques learned in class.

8119 DOCUMENTARY WRITING AND PRODUCTION

Grade 12

.5 Credit/1 Trimester

Prerequisite: English 11

Objectives: 1. To examine the current resurgence of documentary films and filmmaking; 2. To compare and contrast sub-genres of documentary films; 3. To recognize specific techniques of the genre, especially those that are emotionally or subliminally manipulative; 4. To analyze and evaluate bias in documentary films; 4. To create films with a specific focus, audience, purpose, and tone, based on research.

Description: Students will learn to harness the power of sound, image, and language to change or broaden attitudes and perceptions. Through documentary filmmaking, students will employ techniques that appeal to the emotions. The course will emphasize integrity, requiring that students avoid questionable methods of audience manipulation. In addition, students will become scholars of documentary techniques and issues and conduct research relevant to their films.

Expectations: Students are expected to view documentaries and analyze them through discussion and essays. In addition, each student will write, produce, and direct one or more short documentaries. Students will demonstrate knowledge of focus, audience, purpose, tone, research, bias, and techniques through quizzes, essays, and film projects.

8122 SPORTS LITERATURE

Grade 12

.5 Credit/1 Trimester

Prerequisite: English 11

Objectives: 1. To recognize sports literature as a distinct literary genre; 2. To examine the evolution of sports and its literature; 3. To analyze the effect of sports on human nature and society; 4. To evaluate the literary qualities and style of sports literature; 5. To explore the appeal and impact of sports and its literature on society; 6. To address and discuss stereotypes in sports

Description: This course will focus on both fiction and nonfiction sports literature. Students will read critically acclaimed literature (novels and biographies) and thematically related articles, explore issues on the Internet, and scrutinize the genre in popular culture. Students will study and research specific sports-related topics such as rivalries, Pittsburgh sports, and the Olympics. Through writing, online exchanges, and classroom discussions and presentations, students will share their findings and viewpoints regarding this genre.

Expectations: Students are expected to read two novels. Students will write about the novels and other pieces of literature. Students will participate in online discussions and class discussions about the genre. Students will analyze the impact of sports and its literature through research and discussion.

8910 CHS ARGUMENT, COMMUNICATION AND RHETORIC
(This is a College in High School course from the University of Pittsburgh worth 3 College Credits)
Grade 11 or 12
1 Credit/2 Trimesters
Prerequisite: None



Objectives: 1. To examine the fundamentals of argument; 2. to develop and apply proficiency in the fundamentals of argument.

Description: This introductory course (available for college credit) from the University of Pittsburgh's College in High School Program examines the fundamentals of argument theory and intends proficiency in the application of formal debating techniques. There are two main components in the course. The first examines the foundations of argument construction, support, and refutation. The second component offers students opportunities to apply their communication/argument skills through in-class debates, including Lincoln-Douglas debate, policy debate and mock trial. Students will also analyze the elements of propaganda and eloquence. Assessment involves quizzes on various concepts of argument theory, a mid-term examination, collaborative preparation of debate/mock trial briefs, written evaluation of speeches/debates, as well as class participation and debate performance. Finally, students will have the opportunity to participate (and compete) in a public forum/debate tournament at the University of Pittsburgh.

Expectations: Students will participate in several debates (including mock trial) in front of an audience. Plus, they will submit written evaluations of speeches, debates and trials they have observed. Students will complete extensive research to support their briefs and debate performances. Overall, students will cooperatively prepare a minimum of 50 pieces of evidence from at least 10 different sources. A research paper is also required. Several tests and quizzes will check understanding of argument theory.

4113 AP ENGLISH LITERATURE
Grade 12
1.5 Credits/3 Trimesters



Prerequisite: Honors English 11 and/or fulfillment of the honors requirement. This is a college level course.

Objectives: 1. To offer students a college level seminar course which challenges them to explore other cultures and interpret varied literary genres; 2. to refine writing skills; 3. to prepare students for demanding college English programs as well as for the AP examination.

Description: The AP English Literature and Composition course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. In the broadest sense, this close reading involves the experience of literature, the interpretation of literature, and the evaluation of literature. In more specific terms, the close reading expectations demand that students consider a work's structure, themes, and characterization, as well as such smaller-scale elements as the use of figurative language, imagery, and different types of repetition. The course includes intensive study of representative works from various genres and periods, concentrating on works of recognized literary merit that build upon the reading done in previous English courses. Students will also read and analyze different types of poetry, from the sonnet to the sestina, and ultimately complete an intensive poetry research project. Writing assignments primarily focus on the critical analysis of literature and include expository, analytical, and argumentative essays, yet there are also opportunities for creative writing and writing reviews. Throughout the course, emphasis is placed on helping students develop stylistic maturity in their own writing. Students are required to take the AP Literature and Composition exam.

Expectations: Students will read extensively, beginning with works assigned over the summer and will develop tools for close textual analysis. Both timed writings and take home papers will be assigned. Students are expected to become a community of learners, sharing their response to the texts. Students are required to take the AP English exam.

4114 AP ENGLISH LANGUAGE AND COMPOSITION QVO
Grades 11 - 12
1.5 Credits/2 Semesters (Full Year)

Prerequisite: Grade of A in most recent Honors English course

Standards: The College Board topic outline for AP English Language and Composition

Description: In AP English Language and Composition, students learn to understand and analyze styles of writing by reading work from a variety of authors. They'll explore the richness of language, including syntax, imitation, word choice and tone. They'll also learn about their own composition style and process, starting with exploration, planning, and writing, and continuing through editing, peer review, rewriting, polishing, and applying what they learn to a breadth of academic, personal and professional contexts. The equivalent of an introductory college-level survey class, this course prepares students for the AP Exam and for further study in communications, creative writing, journalism, literature and composition.

8108 MYTHOLOGY
Grades 11 - 12
.5 Credit/1 Trimester



Prerequisite: None

Objectives: 1. To explore various mythologies of the ancient and medieval world; 2. to relate classic mythology to modern cultural and artistic expression; 3. to understand mythology's influence on modern entertainment forms.

Description: The course will examine world mythology and its cultural influence over the years. It will explore various mythologies produced by ancient societies in an effort to explain the world and the meaning of human existence. It will study major themes of mythology. The course will make use of modern media as well as written literature.

Expectations: Students will gain an understanding of how mythology has profoundly influenced not only literature but also heavily impacted on art, literary criticism, music, psychology, religion, cinema, and television. By exploring the influence of mythology on modern entertainment forms, the student will recognize how cultural identities are still shaped by timeless tales penned by some of the world's greatest writers.

8109 HOW TO READ A FILM
Grades 9 - 12
.5 Credit/1 Trimester

Prerequisite: None

Objectives: Students will be able to: 1. recognize and identify various techniques used in film, such as camera angle, color and contrast, editing, music, sound, and design; 2. analyze these techniques to gain a greater understanding of a film's meaning; 3. articulate the conscious and unconscious effects these various techniques have on an audience's emotions; 4. interpret and evaluate films based on their cinematic attributes.

Description: Just as poets and novelists use literary and language devices to convey ideas, filmmakers use the medium's own special language to convey character, plot, and theme. This course will help students learn how to "read" this language so they may better appreciate what helps movies have such an impact on their audiences.

Expectations: In class, students will analyze clips from classic and popular films and screen a few films in their entirety. Students will also be required to view several films at home or in theatres (some chosen by them and some by the instructor.) Writing assignments will include viewer response journals, film analyses and reviews, and an expository presentation on film technique. Students will be required to read scenes from movies and one full screenplay (to be followed by a screening of the filmed versions). If possible, or as an optional assignment, students will create a short video or videos demonstrating an understanding of cinematic techniques.

8113 CREATIVE WRITING
Grades 9-12
.5 Credit/1 Trimester

Prerequisite: Students will select this course in grade eleven or twelve. Students in grades 9 and 10 may apply for early admission if they are recommended by their English teacher. Students may select this course for one term only or may continue for two or three terms.

Objectives: 1. To experiment with a variety of written and oral expression; 2. to develop their own voices and style in writing; 3. to practice the process of writing from prewriting through editing; 4. to practice techniques for evaluating the writing of others; 5. to share written work by publishing in the school literary magazine, *Bittersweet*, and other outside sources.

Description: This course focuses on generating free writing in a journal, studying models of good writing, and experimenting with poetry and prose. Students will develop a sense of speaker and audience. They will provide positive support for their fellow writers and learn to revise their work using concrete, sensory details and appropriate choice of diction, syntax, purpose, and audience. Students will also learn techniques for evaluating syntax, tone, purpose, and audience and will learn techniques for evaluating writing. These techniques will be used to evaluate submissions for the school literary magazine, *Bittersweet*, which is a co-curricular activity. Therefore, students taking this class may also choose to become a part of the *Bittersweet* staff, although participation is not required for the course.

Expectations: Students keep a journal of writing based upon class writing exercises. Students will test their writing on an audience of peers and edit their work for publication. Students will develop a portfolio of their best work in which they write a self-evaluation of the process involved in developing that work. Students will develop working criteria for judging effective student writing.

8123 ADVANCED CREATIVE WRITING
Grade 12
.5 Credit/1 Trimester

Prerequisite: Creative Writing

Objectives: 1. Students will study figurative language in context and explore an author's use and purpose of figurative language 2. Students will study voice, style, tone, audience, and syntax in both their own writing as well as others' writing.

Description: This course will focus on students' written expression both in poetry and prose. Students will read a variety of writing including authors such as Poe, Chaucer, Alighieri, Dickinson, and Homer. Students will write to emulate these authors as well as develop their own style and voice.

Expectations: Students are expected to write daily. Students will write both poetry and short prose. Students will be expected to analyze poems and prose and discuss their literary value. Students are expected to share their work with the class and submit to *Bittersweet*.

8115 LITERATURE ON THE STAGE THEATER I
Grades 9 - 12
.5 Credit/1 Trimester

Prerequisite: None

Objectives: 1. To introduce students to a variety of dramatic works in order to examine an actor's use of critical thinking and presentation skills in accordance to a genre of theatre; 2. to examine and practice aspects of play production, e.g. blocking, costume design, use of set; 3. to analyze themes within a range of theatre works; 4. to build confidence, cooperation, and communication skills in preparing, performing and evaluating a production.

Description: Students will read and perform selections from various works of established playwrights. Students will analyze the use of language, space, movement, etc. in realizing a playwright's vision for the stage. Students will consider the actor's use of subtext as well as verbal and non-verbal communication skills in preparing and executing a performance. Furthermore, students will apply all class concepts to a live theatrical performance and analyze the chemistry between audience and cast. Finally, students will develop and apply 21st Century skills in creating a collaborative, original piece of theater in order to raise audience awareness on a particular social issue.

Expectations: The course will include examination, performance and even creation of literature for the stage. Students will be involved in both small and large group productions, designed not only to communicate literary aspects of the plays but also incorporate appropriate theatre exercises and methodology as a means to perform effectively. Students will write creatively to expand and apply knowledge of characterization technique. Students will also complete written analysis of established characters and themes. Quizzes and/or tests will check understanding and application of essential technical and performance elements in theater production.

8121 LITERATURE ON STAGE THEATER II

Grades 9 - 12

.5 Credit/1 Trimester

Prerequisite: None

Objectives: 1. To introduce students to various dramatic works in order to examine an actor's use of style as it is applied to a genre of theatre and the context of a historical time period; 2. to examine and practice aspects of play production, e.g. blocking, costume design, use of set; 3. to analyze themes within a range of theatre works and determine influences of different time periods; 4. to build confidence, cooperative skills, and critical thinking in preparing, performing and evaluating a production.

Description: Students will read and perform selections from playwrights of classic Greek theatre (i.e. comedy and tragedy) as well as more contemporary, established playwrights. Students will analyze the use of language, space, movement, etc. in realizing a playwright's vision for the stage. Students will also investigate and apply historical influences on a piece of dramatic text and collaborate in creating adaptations on stage. Students will experience a live theatrical performance in order to understand the chemistry between audience and cast.

Expectations: The course will include close readings of selected works. Students will be involved in both small and large group productions, designed not only to communicate literary aspects of the plays but also incorporate appropriate theatre exercises and methodology as a means to perform effectively. Students will also be expected to create original work for the stage based on our study of published work. Various writings will analyze characters, cultural elements, themes, etc. from the plays. Quizzes and tests might be used to check understanding of the theatre's place throughout different historical periods.

8120 FILM WRITING AND PRODUCTION

Grades 10 - 12

.5 Credit/1 Trimester

Prerequisite: English 9

Objectives: Students will be able to write a short, effective screenplay in professional format; convert a screenplay to a shooting script; manage a production shoot; film using digital camera technology; tell a story using established film techniques; digitally edit for continuity, emotional impact and meaning; and add music, titles and additional sound in post-production.

Description: This course will take advantage of the new digital recording and editing technology available in our district. As a result of this course, students will gain the knowledge and skills necessary to write, produce, direct and edit their own short narrative film productions.

Expectations: Students will be required to write short narrative screenplays in a professional format that incorporate structured story lines, characterization and theme. Students will then produce, perform in, direct and edit films based on these scripts. Select films will be broadcast on QTV and during SPAM (Drama Club's Short Plays and Monologues fall production). Students will also be graded on class work and homework.

3115 LANGUAGE ARTS I

Grades 9 & 10

1.0 Credit/2 Trimesters

Prerequisite: Placement in this course is pre-determined by testing data

Objectives: 1. To examine all dimensions of literacy 2. To develop proficiency in word identification, spelling, vocabulary, grammar and usage, reading comprehension, speaking and writing.

Description: This introductory course gains instructional power by integrating concepts and skills among its six steps. The words students learn to read and spell in a unit are the basis for vocabulary, grammar, and reading in other steps of the same unit. Once students can identify the words fluently, they can devote attention to learning complex vocabulary, mastering grammar and usage, developing reading comprehension and expanding composition skills.

Expectations: Students with reading delays will participate in the direct instruction and monitor their progress of fluency checks. Students will read in class and will develop confidence and skills needed reading.

3116 LANGUAGE ARTS II
Grades 9 & 10
1.0 Credits/2 Trimesters

Prerequisite: Placement in this course is pre-determined by testing data

Objectives: 1. To examine all dimensions of literacy 2. To develop proficiency in word identification, spelling, vocabulary, grammar and usage, reading comprehension, speaking and writing.

Description: This introductory course gains instructional power by integrating concepts and skills among its six steps. The words students learn to read and spell in a unit are the basis for vocabulary, grammar, and reading in other steps of the same unit. Once students can identify the words fluently, they can devote attention to learning complex vocabulary, mastering grammar and usage, developing reading comprehension and expanding composition skills.

Expectations: Students with reading delays will participate in the direct instruction and monitor their progress of fluency checks. Students will read in class and will develop confidence and skills needed reading.

3100 STANDARDS BASED READING
Grade 12
.5 Credit/1 Trimester (A or C)

Prerequisite: Basic or Below Basic Score on PSSA in 11th grade

Objectives: (1) To become proficient in reading comprehension and literary analysis, per the PA benchmarks. (2) To become lifelong critical readers.

Description: Students will build their vocabularies for discussing materials they read. They will actively read passages and answer exam-style multiple choice questions as well as open-ended ones. They will discuss elements of fiction (such as theme) and nonfiction (such as bias).

Expectations: Students are expected to complete all classroom work and may be expected to finish some reading assignments as homework. Students are also expected to retake the reading PSSA in October and/or the 3 local assessments in the spring to demonstrate proficiency.

Family and Consumer Sciences

The mission of the Family and Consumer Sciences program is to have individuals actively participate in the improvement of the quality of individual and family life in a changing society. Family and Consumer Sciences empowers individuals, strengthens families, and enables communities.

8701 FOODS I

Grades 9 - 12

.5 Credit/1 Trimester

Prerequisites: None

Objectives: 1. To become familiar with basic nutritional principles as related to the food pyramid; 2. to develop skills in planning nutritionally balanced meals; 3. to develop skills in the practical application of food preparation in a laboratory environment while utilizing a variety of equipment.

Description: The primary focus is on the practical application of food preparation and basic skills along with nutrition principles. Through the preparation and evaluation of tempting recipes, hands-on experience will be gained. The major units of study include knife skills, baking, potatoes, eggs, poultry, and pasta.

Expectations: Students will plan, select, and prepare food products that show an understanding of nutrition principles, preparation techniques, and equipment mastery.

8708 COOKING ESSENTIALS

Grades 9-12

.5 Credit/1 Trimester

Prerequisites: None

Objective: To learn the essential skills for preparing healthy meals at home.

Description This class will introduce the fundamentals of knife skills, food selection and storage, use of herbs and spices, baking, and other culinary concepts that will encourage home-cooked, healthy eating. Through readings, online research and hands on lab experiences students will be exposed to the essential techniques of cooking. Equipping students with the knowledge of proper preparation techniques and the know how to effectively flavor foods will promote healthy lifestyle choices associated with dining in.

Expectation: The students are responsible for contributing to and enhancing the units of study.

Instructional Technology

The demands of today's high-tech world require students to be computer literate. The challenge we have is preparing these students. Academics and technology must come together to meet and exceed this challenge.

The curriculum outlined will go beyond a basic understanding of computers. Technology changes constantly. Our students must be taught not only basic skills but also ways to adapt to those constant changes. Students will learn what a valuable tool the computer has become and the impact it will continue to have on our daily lives. From hardware to software, networks to desktops, programming to applications, students will be prepared for today's high-tech world.

3706 INTRODUCTION TO NETWORKING

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None.

Objectives: Students will acquire competencies to build, configure, upgrade and maintain a personal computer system. Utilizing relevant workplace safety and environmental standards during computer maintenance, students will provide computer hardware and software support by diagnosing and resolving hardware and software problems, and installing and configuring various computer peripheral devices. Students will also setup and maintain a local area network and resolve network connectivity problems using a systematic troubleshooting approach. At the end of this course students should possess the academic knowledge and skills aligned with CompTIA's A+ Certification standards.

Description: The course Introduction to Computers & Networking introduces a student to information technology and data communications. The course is designed to provide students with classroom and laboratory experience stressing laboratory safety and working effectively in a group environment. Students will learn how to build a computer and install and/or work with operating systems such as Windows 98, and Windows NT, 2000, and XP. This course is an introduction to information technology (IT) that includes an overview of IT, math for the digital age, introduction to networking, PC maintenance, safety and troubleshooting. An in-depth exposure to personal computer hardware and desktop operating systems including software will provide the students with knowledge and functionality of hardware and software components. The course will rely heavily on the Cisco Networking Academy's online curriculum (IT Essentials I: PC Hardware and Software) and assessment server. The understanding of how computers can be applied to academic and real world examples will be examined.

Expectations: Students will be required to explain and demonstrate basic computer operations, and pass all exams, quizzes, and laboratory projects. Students will keep a notebook throughout the course. The Blackboard™ Content Management System will be utilized to post course content, submit assignments and assess student learning through the use of online quizzes and/or exams.

3703 INTRODUCTION TO WEB DESIGN

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None.

Objectives: The Introduction to Web Design course focuses on improving a students' understanding of the World Wide Web as they design, analyze, program and publish web pages in HTML (Hypertext Markup Language).

Description: The Introduction to Web Design explores web site basics with particular emphasis on the construction of web pages using an ordinary text editor to create and edit programming code. Hands-on web design exercises will be taught where the students will program web links, formatting page elements, add graphics and multimedia, work with frames and tables, and use forms to control input. Teacher directed lectures, hands-on laboratories and projects will comprise the majority of the lessons. Demonstrations and lectures will permit the students to construct a full functioning website and publish their product on the World Wide Web.

Expectations: Students will be expected to create and program a website in HTML as well as complete all lessons, pass exams/quizzes, projects, and submit a final course website which will integrate all HTML programming techniques. Students will keep a notebook throughout the course. The Blackboard™ Content Management System will be utilized to post course content, submit assignments and assess student learning through the use of online quizzes and/or exams.

3704 ADVANCED WEB DESIGN

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None. However it is recommended that students complete 3703 Introduction to Web Design before enrolling in this course.

Objectives: The Advanced Web Design course explores the power of the World Wide Web by providing an intense classroom and laboratory experience in the following software packages: Adobe Dreamweaver, Fireworks and Flash. Students will design, analyze and publish their own websites like professionals.

Description: Advanced Web Design focuses on web site architecture with particular emphasis on design elements involving layout, navigation and interactivity. Hands-on web design exercises will be taught using Adobe Dreamweaver, Fireworks, and Flash. Teacher directed lectures, hands-on laboratories and projects will comprise the majority of the lessons. Demonstrations and lectures on the Adobe software packages will permit the students to construct a full functioning website and publish their product on the World Wide Web.

Expectations: Students will be expected to develop online content for a website they will create as well as complete all lessons, pass exams/quizzes, projects, and submit a final course website which will integrate all Adobe software products. Students will keep a notebook throughout the course. The Blackboard™ Content Management System will be utilized to post course content, submit assignments and assess student learning through the use of online quizzes and/or exams.

3709 TECHNOLOGY LITERACY

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None.

Objectives: This course is designed to meet the needs of the 21st century learner. Students will utilize technology as a tool for communication, preparing them for success in future careers and in the global community. The course expands a student's knowledge of technology and encourages proficiency with a variety of software applications by allowing students to apply the skills to real world situations. Students will be provided with the knowledge of media literacy including web ethics, copyright and fair use, and Internet safety. Students learn the process of identifying technology needs and selections and apply their knowledge in order to develop appropriate computer technology to meet those requirements. Software, developing Web 2.0 skills, and applying this technology appropriately encompass the Technology Literacy course.

Description: The Pennsylvania Technology Standards will act as the foundation for the course. The Technology Literacy course provides students with knowledge and skills in seven areas: Spreadsheets, Word processing, Databases, Multimedia and Presentations, Telecommunications and Internet, Systems and Fundamentals and Social and Ethical issues of technology use. Students will review, learn, and apply a variety of software to accomplish tasks using Web 2.0 tools. In addition to learning the technical fundamentals of computer and software use, students will build upon skills in researching information and using technology to help explain the legal and ethical ramifications of technology.

Expectations: Students will complete assignments and project laboratories using applications covered in this course. Students will be required to explain and demonstrate basic computer operations and software use, in order to pass all exams, quizzes, and laboratory projects. The Blackboard™ Content Management System will be utilized to post course content, submit assignments and assess student learning throughout the course.

3708 INTRODUCTION TO JAVA PROGRAMMING
Grades 9 - 12
1.5 Credits/3 Trimesters



Prerequisite: None.

Objectives: 1. To introduce students to fundamental topics in computer science; 2. To develop and implement logic and analytical skills using the Java syntax; 3. To build a foundation of the basic concepts and methods of object-oriented programming and object-oriented design.

Description: This course will focus on the programming language of Java. Java enables the development of software that is reliable, secure, platform independent, dynamically adaptable and network enabled. Students will design, create/program and debug a variety of Java applications (stand-alone programs) and ‘applets’ (programs meant to execute within a web browser). The use of real world examples from business, science, engineering, mathematics and recreation will help illustrate the importance and complexity of an object-oriented programming language.

Expectations: Students will be required to maintain an electronic notebook consisting of all class and laboratory notes along with programming assignments. It is expected that every student will participate in individual and group programming projects, discussions, daily homework assignments and earn a passing grade on all assessments.

5801hv CISCO ACADEMY QVO
Grades 9 - 12
1.5 Credits/3 Trimesters



Prerequisite: None.

Objectives: This is the first of two courses designed to provide students with experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. A task analysis of current industry standards and occupational analysis was used to develop the content standards. Instruction includes, but is not limited to, safety, networking, network terminology and protocols, network standards, LANs, WANs, OSI models, cabling, cabling tools, routers, router programming, star topology, IP addressing, and network standards. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance, and use of networking software, tools, and equipment and all local, state, and federal safety, building, and environmental codes and regulations.

Description: This course will be taught online with the student meeting the instructor approximately once a month to complete laboratories and skill based assessments. The course will rely heavily on Cisco System’s online curriculum and assessment server.

Expectations: Students will be expected to complete all lessons, pass exams/quizzes, projects, and successfully demonstrate networking & troubleshooting skills. Students will keep a notebook and laboratory journal throughout the course. The Blackboard™ content management system and Cisco’s assessment server will be utilized to post course content, submit assignments and assess student learning through the use of online quizzes and tests.

5803hv ENGINEERING DESIGN I QVO
Grades 9 - 12
.75 Credits/1 Semester (Half of Year)

Prerequisites: None.

Description: In this introductory course you will learn computer-aided design skills necessary for a career in engineering. To this end, you will learn the basics of using CAD software to draw engineering plans and diagrams. Using CAD, you will become familiar with creating points, lines, geometric forms, drawings, and 3-D models. As you learn these basics, you’ll gain the foundation that you need to translate abstract concepts into functional designs, a core engineering skill. During this course, you will create a diverse portfolio of projects that include orthographic projections, sectional views of 3-D objects, isometric drawings, and 3-D walkthroughs. Through these projects, you’ll develop the skills you need to design and create CAD projects of your own.

5702hv GAME DESIGN QVO
Grades 9 - 12
.75 Credits/1 Semester (Half of Year)

Prerequisites: None.

Description: This course is for anyone who loves gaming and wants to design games. You'll learn how to use popular game design software to create engaging, interactive games in a variety of genres. In addition, you'll get a solid foundation in the basic concepts of game development. By the end of this course, you will have a variety of polished games for your game development portfolio.

5802hv AP COMPUTER SCIENCE QVO
Grades 11 – 12
1.5 Credits/3 Trimesters

Prerequisites: None.

Description: The AP Computer Science course is equivalent to the first semester of a college level computer science course. The course involves developing the skills to write programs or part of programs to correctly solve specific problems in Java. AP Computer Science also emphasizes the design issues that make programs understandable, adaptable, and when appropriate, reusable. At the same time, the development of useful computer programs and classes is used as a context for introducing other important concepts in computer science, including the development and analysis of algorithms, the development and use of fundamental data structures, and the study of standard algorithms and typical applications. In addition, an understanding of the basic hardware and software components of computer systems and the responsible use of these systems are integral parts of the course.

Mathematics

The mathematics curriculum at Quaker Valley High School approaches instruction through the integration of mathematics strands—algebra, geometry, data analysis, statistics, probability, and discrete math. Real-world applications are a central theme. Technology is an important instructional tool.

Requirements

All students must fulfill the district's graduation requirements of three years of mathematics in grades 9-12.

Placement in Courses

In order to achieve and grow mathematically, it is crucial that students be placed in the appropriate course at the appropriate time. Care will be given to assure that students have the requisite skills for success in a particular course before enrollment is approved.

Placement or continuation in honors level courses will be based on:

1. grades in previous math courses
2. scores on standardized tests of aptitude and achievement in both mathematics and reading areas
3. recommendation of the previous year's teacher

3400 STANDARDS BASED MATH

Grade 12

.5 Credits/1 Trimester

Prerequisite: Score of Basic or Below Basic on the Keystone Exam or teacher recommendation

Objective: To be proficient on the Keystone exam

Description: Students will work with Number and Operations, Algebra, Geometry, Measurement, and Data Analysis and Probability. Calculators and Study Island will be integrated throughout this course.

Expectations: Students are expected to complete class work and classroom assignments, computer work, quizzes and test in order to become proficient on the Keystone exam.

3403 PRE-ALGEBRA

Grade: 9

1.5 Credits/3 Trimesters

Prerequisite: none

Description: Pre-Algebra is the gateway course for all future mathematics courses. It is the foundation for all higher levels of mathematics. Pre-Algebra has a wide scope, including substantial amounts of geometry integrated with arithmetic and algebraic topics. A solid proficiency in basic calculations is a requirement for the course, as calculators are only permitted at the teacher's discretion. Technical reading and writing will also be emphasized through written explanations and justifications of problem solutions.

Expectations: The following units will be covered throughout the Pre-Algebra course: Algebra Toolbox; Integers and Exponents; Rational and Real Numbers; Collecting, Displaying and Analyzing Data; Plane Geometry; Perimeter, Area, and Volume; Ratios and Similarity and Probability.

3406 INTEGRATED MATH I

Grade 9

1.5 Credits/3 Trimesters

Prerequisite: None

Objectives: 1. To become proficient with multiple representations of linear functions (problem statement, formula, graph, spreadsheet); 2. to introduce students to basic non-linear functions; 3. to develop skills in writing and speaking about mathematics; 4. to acquaint students with mathematical technology (computer tutors, calculators.)

Description: The main focus of Integrated Math I is linear functions. Students will also study some non-linear functions including quadratics and data analysis. The course stresses multiple representations for functions including written problem statements, formulas, graphs, and tables. The approach to teaching and learning includes cooperative and collaborative learning, mathematical modeling, use of scientific and graphing calculators, use of computer tutors, writing to learn mathematics, student projects, and student presentations.

Expectations: Students are expected to complete classroom and daily homework assignments, to work cooperatively with other students, to present work to a group or the class as a whole, to work approximately twice a week on a computer tutor, and to earn passing grades on assessments.

3420 INTEGRATED MATH II

Grades 9 - 12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Integrated Math I.

Objectives: 1. To become proficient with multiple representations of quadratic functions, higher order polynomial functions, exponential functions, and radical functions; 2. to become proficient with the basic linear programming problems; 3. to become familiar with rational expressions; 4. to develop skills in writing and speaking about mathematics; 5. to acquaint students with mathematical technology.

Description: The main emphasis of Integrated Math II is advanced work with linear functions, quadratic functions, higher order polynomial functions, linear programming, exponential functions, radical functions, and some rational expressions. The course stresses multiple representations for functions including written problem statements, formulas, graphs, and tables. The approach to teaching and learning includes cooperative and collaborative learning, mathematical modeling, use of graphing calculators, use of computer tutors, writing to learn mathematics, student projects, and student presentations.

Expectations: Students are expected to complete classroom work and daily homework assignments, to work cooperatively with other students, to present work to a group or the class as a whole, to work approximately twice a week on a computer tutor, and to earn passing grades on assessments.

3432 INTEGRATED MATH III

Grades 9 - 12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Integrated Math II.

Objectives: 1. To become proficient in working with geometric concepts; 2. to develop reasoning as an important aspect of mathematical thinking.

Description: Students will work with the language and logic of geometry, reflections, concepts of congruence and similarity, and two- and three-dimensional figures. There will be a focus on writing sequences of statements and on simple synthetic proofs. Work with coordinate and indirect proofs will also be discussed.

Expectations: Students are expected to complete classroom and daily homework assignments and projects and to earn passing grades on tests and quizzes. It is recommended that students who plan to take Advanced Algebra earn a final grade of C or better.

3421 ALGEBRA II
Grades 9 - 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Geometry and proficiency in Algebra.

Objectives: 1. To become proficient in using algebraic expressions and functions; 2. To model real-world situations using algebra.

Description: Students will work with the language of algebra, equations, functions, matrices, powers and roots, relations, polynomials, and basic statistics. Integrated throughout the course is work with graphing, geometry, and calculators.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. It is recommended that students who plan to take Functions, Statistics, and Trigonometry earn a final grade of C or better.

4421 HONORS ALGEBRA II
Grade 9
1.5 Credit/3 Trimesters

Prerequisite: Successful completion of geometry and fulfillment of the honors requirement

Objectives: 1. To become proficient in using algebraic expressions and functions; 2. to model real-world situations using algebra.

Description: Students will work with the language of algebra, equations, functions, matrices, powers and roots, relations, polynomials, and basic statistics. Integrated throughout the course is work with graphing, geometry, and calculators. This course will be of greater scope and depth than the 3000 level course of the same name.

Expectations: Students are expected to complete classroom and daily homework assignments, journal entries and projects, and maintain a B average on tests and quizzes. Students who plan to take 4410 Honors Functions, Statistics, and Trigonometry must earn a final grade of B or better.

3411 FUNCTIONS, STATISTICS, AND TRIGONOMETRY
Grades 10 - 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Advanced Algebra

Objectives: 1. To become proficient in working with statistical, algebraic, and trigonometric concepts; 2. to acquaint students with available mathematics technology.

Description: Students will work with descriptive and inferential statistics, combinatorics, probability and exponential, logarithmic, and trigonometric functions. Algebraic and statistical concepts are integrated throughout, and the modeling of real phenomena is emphasized. Technology and real-world situations are major themes.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. It is recommended that students who plan to take 3412 Precalculus and Discrete Math earn a final grade of C or better.

4410 HONORS FUNCTIONS, STATISTICS, AND TRIGONOMETRY
Grades 9 - 10
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Advanced Algebra and fulfillment of the honors requirement

Objectives: 1. To become proficient in working with statistical, algebraic, and trigonometric concepts; 2. to acquaint students with available mathematics technology.

Description: Students will work with descriptive and inferential statistics, combinatorics, probability, exponential and logarithmic, and trigonometric functions. Algebraic and statistical concepts are integrated throughout, and the modeling of real phenomena is emphasized. Technology and real-world situations are major themes. This course will be of greater scope and depth than the 3000 level course of the same name.

Expectations: Students are expected to complete classroom and daily homework assignments and projects and to maintain a B average on tests and quizzes. Students who plan to take 4411 Honors Precalculus, and Discrete Math must earn a final grade of B or better to qualify.

3412 PRECALCULUS AND DISCRETE MATH

Grades 11 - 12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Functions, Statistics, and Trigonometry

Objectives: To integrate precalculus and discrete math topics while maintaining and enhancing algebraic skills and developing mathematical thinking at a high level.

Description: Precalculus topics include a review of the elementary functions, advanced properties of functions (including special attention to polynomial and rational functions), polar coordinates, complex numbers, and introductions to the derivative and integral. Discrete mathematics topics include recursion, induction, combinatorics, vectors, graphs, and circuits. Manipulation of complex rational expressions, not emphasized in previous courses, is discussed here. Mathematical thinking, including specific attention to formal logic and proof and comparing structures, is a unifying theme employed throughout the course.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on tests and quizzes. It is recommended that students who plan to take 8913 Calculus earn a final grade of C or better.

4408 HONORS PRECALCULUS

Grades 10 - 12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Functions, Statistics, and Trigonometry, fulfillment of the honors requirement, and teacher recommendation.

Objectives: 1. To integrate precalculus and discrete math topics while maintaining and enhancing algebraic skills and developing mathematical thinking at a high level; 2. to include topics of calculus, where appropriate, to supplement the material in the textbook.

Description: Precalculus topics include a review of the elementary functions, advanced properties of functions (including special attention to polynomial and rational functions), polar coordinates, complex numbers, and introductions to the derivative and integral. Manipulation of complex rational expressions, not emphasized in previous courses, is discussed here. Mathematical thinking, including specific attention to formal logic and proof and comparing structures, is a unifying theme employed throughout the course. This course will be of greater scope and depth and move at a faster pace than the 3000 level course of the same name.

Expectations: Students are expected to complete classroom and daily homework assignments and to maintain a B average on tests and quizzes. Students who plan to take 4412 AP Calculus must earn a final grade of B or better to qualify.

4412 AP CALCULUS (AB)

Grades 11-12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Precalculus, fulfillment of the honors requirement, and teacher recommendation.

Objectives: 1. To develop an understanding of first semester college calculus; 2. to provide experience with the methods and applications of first semester calculus.

Description: This course emphasizes a multi-representational approach to first semester college calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations are also important. Students will study topics including analysis of graphs, limits, continuity, computations of derivatives, applications of derivatives, Riemann sums, anti-derivatives, methods of integration, properties and applications of integrals, and the Fundamental Theorem of Calculus. The course will closely follow the AB syllabus put forth by the College Board. Additional topics may be added as time permits.

Expectations: Students are expected to complete a summer packet prior to taking AP Calculus. Students are also expected to complete classroom and daily homework assignments, participate actively in class, and thoroughly prepare for rigorous quizzes and tests. Students are required to take the AP Calculus exam given in May.

4415 AP CALCULUS (BC)

Grades 11-12

1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Precalculus, fulfillment of the honors requirement, and teacher recommendation.

Objectives: 1. To develop an understanding of first and second semester college calculus; 2. To provide experience with the methods and applications of first and second semester calculus.

Description: This course emphasizes a multi-representational approach to first and second semester college calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The connections among these representations are also important. Students will study topics including analysis of graphs, limits, continuity, computations of derivatives, applications of derivatives, Riemann sums, anti-derivatives, methods of integration, properties and applications of integrals, the Fundamental Theorem of Calculus, and infinite sequences & series. The course will closely follow the BC syllabus put forth by the College Board. Additional topics may be added as time permits. The pace and rigor of AP Calculus (BC) will be substantially greater than that of its (AB) counterpart.

Expectations: Students are expected to complete a summer packet prior to taking AP Calculus. Students are also expected to complete classroom and daily homework assignments, participate actively in class, and thoroughly prepare for rigorous quizzes and tests. Students are required to take the AP Calculus exam given in May.

8913 CHS CALCULUS (This is a College in High School course. See page vi for possible course costs.)

Grades 11 - 12

1.5 Credits or 4 College Credits/3 Trimesters

Prerequisite: Successful completion of Precalculus and Discrete Math

Objectives: 1. To develop an understanding of calculus; 2. to provide experience with the methods and applications of calculus.

Description: This course produces an introduction to calculus for students interested in business, economics, and other Social Studies. Students will study topics including functions, limits and continuity, differentiation, applications of differentiation, integration, exponential, logarithmic functions, arithmetic and geometric progressions, and an introduction to multi-variable calculus.

Expectations: Students are expected to complete classroom and daily assignments and to earn passing grades on tests and quizzes. Students must also meet the requirements as outlined by the College in High School program.

8405 STATISTICS

Grades 10 - 12

1.5 Credit/3 Trimesters

Prerequisite: Successful completion of Algebra II or Compute Algebra II

Objectives: 1. To become proficient in determining mathematical and experimental probabilities; 2. to become proficient with descriptive statistics; 3. to develop skills regarding data collection; 4. to acquaint students with appropriate statistical technology tools.

Description: The main focus of the course will be exploring data, planning a study, producing models using probability theory, and making statistical inferences. Students will work with statistical measures of centrality and spread, methods of data collection methods of determining probability, binomial and normal distributions, hypothesis testing, and confidence intervals. Students will use multiple representations to present data including written descriptions, numerical statistics, formulas, and graphs.

Expectations: Students are expected to complete classroom and daily homework assignments and to earn passing grades on assessments. Students will be expected to work in groups cooperatively and collaboratively. They will be expected to present work to the teacher, small groups, and the whole class.

4413 AP STATISTICS QVO

Grades 11 - 12

1.5 Credits/2 Semesters (Full Year)

Prerequisite: Grade of B in Honors Advanced Algebra or Math Analysis

Standards: The College Board topic outline for AP Statistics

Description: AP Statistics give students hands-on experience collecting, analyzing, graphing and interpreting real-world data. They'll learn to effectively design and analyze research studies by reviewing and evaluating real research examples taken from daily life. The next time they hear the results from another poll or study, they'll know whether the results are valid. As the art of drawing conclusions from imperfect data and the science of real world uncertainties, statistics plays an important role in many fields. The equivalent of an introductory college-level course, AP Statistics prepares students for the AP Exam and for further study in science, sociology, medicine, engineering, political science, geography and business.

Music

Music, an academic; music, an art. Music incorporates aspects of mathematics, physics, physical education, history, and world languages. Beyond these, though, music is an art. It allows for aesthetic growth for all who perform and listen.

It is our aim to expose all students to a wide variety of musical styles and periods. For the performing ensembles we want the students to experience the coordination of this music through marching and concert performances in both small and large ensembles. Band, orchestra, and chorus are co-curricular courses and have requirements that extend beyond the normal school day. Furthermore, the curriculum offers opportunities for all students in the History of Popular Music, Music Theory*, Jazz Ensemble, and piano courses.

**Prerequisite to participate in the course.*

8799 HONORS BAND Grades 9 - 12 1.5 Credits/3 Trimesters



Prerequisite: Current member of the band program or audition by the conductor

Objectives: To provide the opportunity for each student to: 1. participate in a music program that reflects the continuing advancements in music/education; 2. sequentially develop the comprehensive cognitive and physical skills requisite for refining ensemble technique and tone in performing; 3. sequentially develop comprehensive music literacy by refining music reading, listening, and analysis; 4. value music; 5. sequentially develop the affective concepts requisite for refining aesthetic perception and response; 6. foster creativity; 7. provide exposure to our cultural heritage reflecting music history and style in performing; 8. nurture the student from childhood through transition into young adulthood by developing his/her sense of self-worth, sense of community, role in understanding and contributing to our culture and aesthetic sensitivity; 9. promote a lifetime association with music as a professional, as an avocation, and/or a discriminating listener/consumer.

Description: Class meets five times per week. Students will be taught proper instrumental and ensemble technique. Emphasis is placed on the development of musicianship through progressive technical studies, the development of tone quality, phrasing, articulation, all major and minor scales, rhythmic patterns, meters, trills, and embellishments, and music reading skills. Emphasis is on age-appropriate musicianship/aesthetic response including rehearsal and concert etiquette, and responsibilities associated with membership in a performing organization. The repertoire for marching band and concert band will consist of traditional and contemporary literature, including transcriptions, marches, and show music. The students will rehearse a large variety of music and prepare selected pieces for performance and adjudication.

Expectations: This course will include both components of marching and concert band. Extra rehearsals and performances are a vital and integral part of this course and are part of the course requirements and grading policy.

8798 CONCERT BAND Grades 9-12 1.5 Credit/3 Trimesters



(same as above however students who choose this course will not be part of the marching band program and will not receive honors credit)

8802 STRING ORCHESTRA Grades 9 - 12 1.5 Credit/3 Trimesters



Prerequisite: Current member of the orchestra program or audition by the conductor

Objectives: To provide the opportunity for each student to: 1. participate in a music program that reflects the continuing advancements in music/education; 2. sequentially develop the comprehensive cognitive and physical skills requisite for refining ensemble technique and tone in performing; 3. sequentially develop comprehensive music literacy by refining music reading, listening, and analysis; 4. value music; 5. sequentially develop the affective concepts requisite for refining aesthetic perception and response; 6. foster creativity; 7. provide exposure to our cultural heritage reflecting music history and style in performing; 8. nurture the student from childhood into young adulthood by developing his/her sense of self-worth, sense of community, role in understanding and contributing to our culture and aesthetic sensitivity; 9. promote a lifetime association with music as a professional, as an avocation, and/or a discriminating listener/consumer.

Description: Class meets five times per week. Students will be taught proper instrumental and ensemble technique. Emphasis is placed on the development of musicianship through progressive technical studies, the development of tone quality, phrasing, articulation, all major and minor scales, rhythmic patterns, meters, trills, and embellishments, and music reading skills. Emphasis is on age-appropriate musicianship/aesthetic response including rehearsal and concert etiquette, and responsibilities associated with

membership in a performing organization. The repertoire will consist of traditional and contemporary literature for string orchestra. The students will rehearse a large variety of music and prepare selected pieces for performance and adjudication.

Expectations: Students join all performing groups with the understanding that performances outside of the regular school day constitute a part of their grade/evaluation. Extra rehearsals and performances are a vital and integral part of this course and are part of the course requirements and grading policy.

8803 CONCERT CHOIR
Grades 9 - 12
1.5 Credits/3 Trimesters



Prerequisite: Recommendation of instructor and/or satisfactory audition with the director

Objectives: To provide the opportunity for each student to: 1. participate in a music program that reflects the continuing advancements in music/education; 2. sequentially develop the comprehensive cognitive and physical skills requisite for refining ensemble technique and tone performing; 3. sequentially develop comprehensive music literacy by refining music reading, listening, and analysis; 4. value music; 5. sequentially develop the affective concepts requisite for refining aesthetic perception and response; 6. foster creativity; 7. be exposed to our cultural heritage reflecting music history and style in performing; 8. be nurtured the student from childhood through transition into young adulthood by developing his/her sense of self-worth, sense of community, role in understanding and contributing to our culture, and aesthetic sensitivity; 9. develop a lifetime association with music as a professional, as an avocation, and/or a discriminating listener/consumer.

Description: Class meets five times per week. Students will be taught emphasizing proper vocal technique, ensemble technique, and music reading skills. Emphasis is on age-appropriate musicianship/aesthetic response including rehearsal and concert etiquette, and responsibilities associated with membership in a performing organization. Repertoire consists of traditional and contemporary literature of various vocal genres.

Expectations: Students join all performing groups with the understanding that performances outside of the regular school day constitute a part of their grade/evaluation. It is expected that students will take this class all three terms. Special considerations for two terms only need to be approved by the Choral Director.

8822 MUSIC THEORY
Grades 10 - 12
1.0 Credit/2 Trimesters



Prerequisite: Students must be a member of band, orchestra, or chorus and have their director's recommendation or through audition and/or testing show musical competency to participate in the course.

Objectives: To provide the opportunity for musically talented/advanced students to: 1. participate in one of the most challenging aspects of the music program; 2. sequentially develop comprehensive music literacy by refining music reading, writing, listening, and analysis; 3. value music; 4. foster creativity; 5. promote a lifetime association with music as a profession, as an avocation, and/or a discriminating listener/consumer; 6. participate in a music program that reflects the continuing advancements in music/education including technology.

Description: : This course is offered five times per week for one term as an elective to the advanced 10th, 11th, and 12th grade student who has achieved an excellent background in either instrumental or vocal music. This course is designed to encompass a wide range of musical study with emphasis on advanced theory, form, analysis, ear training, rhythmic, melodic, and harmonic dictation, and advanced melody writing, beginning composition skills, possible use of synthesizers and other MIDI equipment.

Expectations: Students will be expected to complete assignments. There will be periodic quizzes and tests.

8808 KEYBOARD LAB
Grades 9 - 12
.5 Credit per Trimester



Prerequisite: None

Objectives: 1. To provide instruction in beginning, intermediate, and advanced piano skills; 2. to provide introductory experiences in music technology.

Description: This class will meet five times per week for one term. During each term the students enrolled will be individually evaluated and provided with instructional sequences that advance their individual needs. Individual practice as well as computer assisted instruction will be utilized.

Expectations: Students will advance through instruction at their level and will be evaluated by their daily work and progress on the keyboards. *NOTE: Students may enroll in this class more than once during the school year.*

8795 STAGE LIGHTING AND SOUND
Grades 9 - 12
.5 Credit/1 Trimester



Prerequisite: Recommendation of instructor

Objectives: To provide the opportunity for each student to learn about:

1. set-up, and design of theatrical lighting and sound equipment.
2. operation of Lighting and Sound board.
3. Maintenance of theatrical lighting and sound instruments.

Description: Class meets five times per week. Students will be given hands-on experience in learning to operate the sound and lighting systems. Members of the class will work with the acting class to design and operate the technical aspects of class one-act plays.

Expectations: Students will be expected to be available to operate sound and lights for various school functions to include: Evening music concerts, meetings and assemblies in the auditorium and the Spring musical.

Note: Students who accumulate 60 hours of after- hours service to the auditorium will be granted an additional .5 credit.

4820 AP MUSIC THEORY
Grades 11-12
1.5 Credits/3 Trimesters



Description: Advanced Placement Music Theory is designed to develop the student's ability to recognize, understand, and describe the basic materials and processes of music that is heard or presented in a score. The course will further instill mastery of the basic elements of music, including intervals, scales, chords, rhythmic patterns, and the terms used to describe these elements as they relate to the system of major-minor tonality. Students will explore basic harmonization techniques and more sophisticated analytical techniques. Sight-singing and piano skills will also be addressed. Students should possess the ability to read and play musical notation and be proficient as a vocalist or instrumentalist.

Honors Personal Project

Students are required by Quaker Valley School Board Policy and the Pennsylvania Department of Education to complete a personal project before graduation. The project is to be completed in 10th grade during Trimesters 1 and 2. This one credit course is graded utilizing the Quaker Valley High School grading scale. Students must receive a passing grade in order to meet the Quaker Valley School Board Policy graduation requirements. The successful completion of the International Baccalaureate personal project will fulfill the graduation project requirement.

5008 HONORS PERSONAL PROJECT

Grade 10

1 Credit/2 Trimesters

Prerequisites: None

Objectives: To fulfill the Pennsylvania Department of Education and the Quaker Valley School District graduation requirements.

Description: The Honors Personal Project is a significant body of work produced over an extended period of time. It is a product of the student's own initiative and provides an excellent opportunity for students to produce a truly creative piece of work in an area of personal interest, while demonstrating skill in time management and in the problem-solving process. Students must determine their topics, seek approval for their plans and carry out the task, event, or production. The project requires contextual research, a thorough analysis of the process followed and an evaluation of the result in a formal paper, which documents the learning journey. The Personal Projects are not scheduled classes; they are completed in addition to a student's coursework.

Physical Education/Wellness

The goal of physical education/wellness education is to promote individual development of the knowledge, skills, behaviors and attitudes associated with regular participation in physical activity, physical fitness, and health wellness.

8005 HEALTH & WELLNESS I

Grades 9 or 10

.5 Credit/1 Trimester

Prerequisite: None

Objectives: 1. To help students develop the knowledge and skills needed to make healthy choices to improve their quality of life; 2. to understand healthy personality development and healthy relationships; 3. to develop knowledge, understanding, and avoidance of risky behaviors that lead to violence, substance abuse, teenage pregnancy and sexually transmitted diseases.

Description: This course is an extension of the middle school program with a more sophisticated approach and the addition of several new areas of study. At the high school level, individual responsibility for health and wellness is stressed. Students learn that many health-related problems are preventable by making healthy choices throughout life.

Expectations: All students will be expected to participate in classroom activities and be assessed by performance on tests, quizzes, assignments, and research projects. Students will be expected to attain a level of wellness understanding that meets the course objectives. Students who fail to pass the course will be required to repeat it.

8006 HEALTH & WELLNESS II

Grades 11 or 12

.5 Credit/1 Trimester

Prerequisite: Health and Wellness I

Objectives: 1. To help students utilize the knowledge and skills to make healthy choices that improve their quality of life; 2. to help students apply health knowledge to their own lives; 3. to recognize abusive relationships, sexually harassing behaviors, and dating violence; 4. to develop knowledge, understanding, and avoidance of risky behaviors that lead to substance abuse, suicide, and HIV/AIDS transmissions.

Description: This course is an extension of the Health and Wellness I course with the addition of several new areas of health-related study relevant to adolescents. Individual responsibility for health and wellness continues to be emphasized. In this course students focus on applying knowledge to personal and social health issues including sexual harassment, date rape, HIV/AIDS, suicide prevention, stress management, and the effects of chemical addictions on the family. In addition, students will have the opportunity to become certified in adult CPR.

Expectations: All students will be expected to participate in classroom activities and be assessed by performance on in-class assignments, tests, quizzes, and research projects. Students will be expected to attain a level of wellness understanding that meets the course objectives. Students who fail to pass the course will be required to repeat it.

80010 PHYSICAL EDUCATION & FITNESS

Grades 9 - 12

.5 Credit/1 Trimester

Prerequisite: None

Objectives: 1. To demonstrate individual knowledge of and development in health-related physical fitness; 2. to develop and refine skills in a wide variety of physical activities; 3. to demonstrate leadership skills in small group and large group activities; 4. to demonstrate safety, sportsmanship, fair play, cooperation, and respect for others during physical activity; 5. to demonstrate knowledge of basic skills, principles, rules and strategies related to a variety of physical activities and movement forms; 6. to demonstrate knowledge of how to learn new skills.

Description: The physical education program at this level builds on the elementary and middle school programs with more emphasis on the development of advanced techniques, strategies, and greater competence in performing a variety of physical activities. Cooperation, sportsmanship, safety, and fair play are stressed throughout the program. The program includes a variety of team, large group, small group, dual and individual physical activities. In addition, health-related physical fitness is stressed which focuses on assessing, analyzing, and improving cardiovascular endurance, muscular strength, muscular endurance, flexibility, and body composition.

Expectations: All students are expected to dress appropriately for safe participation in physical activity and participate in all class activities. Students will be expected to perform physical skills demonstrating proper technique at a level that is commensurate with their abilities. Students will demonstrate their level of knowledge, attitudes, and skill through a variety of written and performance-based assessments. Students will be expected to work individually, in pairs and in small and large groups throughout the course. Students will demonstrate their knowledge and application of principles relating to improving health related physical fitness. Students who fail to pass the course will be required to repeat it.

Pre-Engineering Technology

Pre-Engineering Technology courses enable students to: become technologically literate through exploration of the social and cultural impacts of technology; apply concepts from math, science, social studies, art and language arts; analyze and develop solutions to practical problems; and to implement a variety of instructional strategies including teamwork, simulations, computer modeling, prototyping and research and design.

***Pre-Engineering Technology classes also count as Science credit.**

8600 EXPLORING TECHNOLOGY

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: None

Objectives: 1. To apply problem solving and creative thinking through activities and experiences; 2. to demonstrate a general understanding of the five areas of technology: manufacturing, construction, communications, transportation, and bio-related technologies; 3. to integrate technological concepts with other school subjects, such as math, science, English, and social studies; 4. to encourage students to produce high quality work, individually and as part of cooperative research and development teams; 5. to understand the safe use of tools, machines, and processes of technology.

Description: Exploring Technology is a foundation course in technology for all students in grades 9 through 12. This exciting, hands-on course provides an overview of the systems areas of bio-related, communication, construction, manufacturing and transportation technology. Students, working alone or in groups, will build a foundation for technological literacy by developing, producing, testing and assessing solutions to technological problems. Also, the impacts of technology will be analyzed. Exploring Technology is a prerequisite for many of the other technology courses offered at Quaker Valley High School.

Expectations: Students will complete all assignments and participate in class project activities.

8602 ROBOTICS

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: Exploring Technology

Objectives: 1. Identify, formulate solutions for, and solve engineering technology problems using engineering design processes 2. Apply knowledge of mathematics, science and technology to solve robotic engineering technology problems. 3. Function on multi-disciplinary teams 4. Communicate effectively using various forms of communications. 5. Recognize the need for, and demonstrate the ability to, engage in life-long learning 6. Describe various methods used to manage and schedule projects 7. Participate in and/or conduct design reviews 8. Collect, analyze and interpret data

Description: We can't predict what the hot new technology will be in five years, but we can confidently predict that it will include computer programming, electronic embedded systems, engineering design, and mathematics. If you believe these things, then you need to know that robotics has the ability to teach these concepts. At the same time, robotics teaches 21st century skill sets like time management, resource allocation, teamwork, problem solving, and communications.

This course is designed to use robotics as the organizer to teach engineering design process and programming.

Robotics consists of an eclectic mix of mechanics, electronics, programming, engineering, and mathematics.

The curriculum is divided into two sections: "Getting Started" and "Programming and Engineering."

A comprehensive guide teaches students how to program the VEX Cortex Hardware System as it helps students develop engineering competencies. The Fundamentals Unit is divided into six Lesson Sets: Safety, Project Management, Assessment Rubrics, Introduction to Programming, Natural Language and VEX Hardware. Students learn at different rates and the curriculum is designed so that students are able to work independently through the lessons.

8603 TRANSPORTATION TECHNOLOGY

Grades 9 - 12

.5 Credit/1 Trimester



Prerequisite: Exploring Technology

Objectives: 1. To demonstrate an understanding of the operation of various transportation systems; 2. to develop, produce, test, and evaluate various transportation vehicles; 3. to investigate the various subsystems of transportation; 4. to investigate the history and future of transportation; 5. to analyze various transportation systems for efficiency; 6. to investigate the social, cultural, economic, and environmental impacts of transportation systems; 7. to work cooperatively as a group to problem solve transportation challenges; 8. to integrate various math and science concepts into a design challenge.

Description: In Transportation Technology, students will develop a basic understanding of transportation technology. In problem solving activities, students will develop, produce, use and assess transportation vehicles and systems while studying the technical subsystems of propulsion, structure, suspension, guidance, control and support in land, water, air and space environments.

Expectations: Students will complete all assignments and participate in class project activities.

8604 COMPUTER-AIDED DRAFTING AND DESIGN (CADD)

Grades 10 - 12

.5 Credit/1 Trimesters

Prerequisite: Exploring Technology

Objectives: 1. To demonstrate an understanding of the operation of computer-aided drafting and design software; 2. to develop problem solving skills that are applicable to life and work; 3. to communicate design ideas effectively; 4. to apply math and science concepts to designing; 5. to demonstrate professional responsibility within the classroom.

Description: In Computer-Aided Drafting and Design (CADD) students will learn to use drafting and design computer software programs and apply them to a variety of drawing and design situations. After a computer hardware/software orientation, students will learn to read and draw several types of technical drawings. This information will then be applied in the design process as students work individually and in groups on a number of architectural and engineering design activities. Students will play the role of professional designers and planners who create design solutions to clients' problems.

Expectations: Students will complete all assignments and participate in class project activities.

8605 CONSTRUCTION TECHNOLOGY/STAGE DESIGN

Grades 9 - 12

.5 Credit per Trimester

Prerequisite: Exploring Technology

Objectives: 1. To identify various methods, materials, and structures used in construction; 2. to develop, construct, use, and evaluate various structures and prototypes; 3. to produce structures using tools, materials, and production processes safely and efficiently; 4. to communicate designs using written specifications, two- and three-dimensional drawings and models; 5. to work cooperatively to problem solve design challenges; 6. to use science and mathematics to solve problems related to the design performance and analysis of structures; 7. to identify problems related to the design performance and analysis of structures; 8. to identify career opportunities in construction-related fields and their required educational preparation.

Description: In Construction Systems, students will develop a basic understanding of the behavior of constructed structures. In problem solving activities, students will develop, produce, use and assess structures while studying architectural design, structural engineering and community planning concepts. Students will then apply this knowledge in the design and hands-on construction of stage designs used for the drama musical at Quaker Valley High School. **NOTE: Students may enroll in this class more than once during the school year.**

Expectations: Students will complete all assignments and participate in class project activities.

Science

The primary goal of the science program is to provide quality science education and serve the educational needs of each student. Science education should create an environment where three significant factors are evident: A) place where students can enhance belief in self, B) a positive learning atmosphere, and C) an environment, which promotes both freedom and growth as an individual in an ever-changing society.

Requirements

All students must fulfill the graduation requirements by completing three full years of science/technology.

Placement

Since math is an integral part of most higher level science courses, it is important that a student's mathematical ability be factored into any decisions regarding science placement. Courses at the 4000 level generally require high levels of both math and science proficiency.

At the 3000 level, a course is available in chemistry and physics for both the mathematically inclined and those who prefer a less mathematically based course. The latter is indicated as a "concept" course. All 3000 level courses are college preparatory in nature.

Honors Level Requirements

Admission

Students wishing to be admitted to Honors Level Science courses will be evaluated based on the following criteria:

1. high level of performance in previous science and math course work
2. recommendation of previous science teachers
3. scores on standardized tests

Note: Tech Ed courses may also be used to fulfill part of the science/technology requirement.

3308 ENVIRONMENTAL BIOLOGY

Grade 9

1.5 Credit/3 Trimesters



Prerequisite: Successful completion of middle school science coursework. Students should be recommended by teachers if they will be required to take this course.

Objectives: 1. to examine living systems and basic environmental components; 2. to identify components of ecosystems and their interconnectedness; 3. to utilize the scientific method and apply scientific thinking to problem-solving; 4. to explore basic biological concepts and content; 5. to analyze common themes between the fields of environmental science, ecology, and biology.

Description: Environmental Biology is an entry-level science course that blends the fields of environmental science, ecology, and biology. Areas of emphasis concentrate on scientific thinking with related tools and technologies, ecological levels of organization in the biosphere, and interactions and relationships in an ecosystem. By understanding the natural processes that operate in the world, along with interactions between living and nonliving components in an ecosystem, students will explore the impact that humans have on the environment.

Expectations: Students will be required to complete assignments and participate in class and laboratory experiments, including those that require use of their laptop computer. They are expected to demonstrate and implement scientific and technological systems.

3307 PRINCIPLES OF BIOLOGY

Grade 10

1.5 Credit/3 Trimesters



Prerequisite: Successful completion of Environmental Biology. Students should be recommended by teachers if they will be required to take this course.

Description: Biology is the science of living things. This entry-level biology course emphasizes the following areas: plant and animal physiology, evolution biochemistry, cellular organization, DNA and genetics. Lab work will require students to display proficiency in the application of learning standards. Students taking this course will be expected to have already completed an environmentally-based life science course.

Objectives: 1. To examine living systems and their inter-relationship with the environment; 2. to identify structural characteristics of plants, animals, and ecosystems; 3. to describe functions of living systems; 4. to utilize laboratory methods and techniques to study biology; 5. to describe the cellular and molecular organization of life.

Expectations: Students will be required to complete assignments and participate in class and laboratory experiments. They are expected to construct models to demonstrate and implement scientific and technological systems.

3309 BIOLOGY

Grade 9

1.5 Credit/3 Trimesters



Prerequisite: Successful completion of chemistry and recommendation of science teacher

Objectives: 1. To examine living systems and their inter-relationship with the environment; 2. to identify structural characteristics of plants, animals, and ecosystems; 3. to describe functions of living systems; 4. to utilize laboratory methods and techniques to study biology; 5. to describe the cellular and molecular organization of life.

Description: Biology is the science of living things. This course, teaches the process, concepts, and excitement of biology and its importance in everyday life. Biochemistry, molecular and cellular organization, genetics, environmental studies and ecology, evolution, anatomy, and physiology of specific organisms are developed. Studies in all areas emphasizes the relationship between structure and function. Environmental issues, concepts, and human impact will be investigated. Laboratory experiences contribute significantly to the qualitative investigations.

Expectations: Students will be required to complete assignments and participate in class and laboratory experiments. They are expected to construct models to demonstrate and implement scientific and technological systems.

4309 HONORS BIOLOGY

Grade 9

1.5 Credits/3 Trimesters



Prerequisite: Recommendation of the science teacher and the fulfillment of Chemistry 4310 or the fulfillment of Chemistry 3311

Objectives: 1. To examine the interdependency relationships between the biotic and abiotic; 2. to compare and contrast physiological processes in organisms; 3. to describe biochemical activities in organisms; 4. to utilize laboratory methods and techniques in the study of biology.

Description: Biology is the study of living things. This course is designed for the college preparatory student who has achieved at a higher level in previous science courses. Areas of emphasis are a concentration on the structures and functions that organisms generally share with differences between organisms, the reasons why they are different, and the effects of these variations have upon other organisms. Students demonstrate proficiency in the use of tools, processes, and resources of science and technology.

Expectations: Students will be required to complete assignments and participate in class and lab work. Independent and higher learning skills are required to construct models to demonstrate and implement scientific and technological systems.

3311 CHEMISTRY
Grades 9 and 10
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Algebra I and science teacher recommendation

Objectives: 1. To acquaint students with the structure and composition of materials as they undergo changes in their chemical make-up; 2. to become familiar with the laws and theories of chemistry; 3. to collect and interpret data in the laboratory as well as learning basic lab techniques.

Description: The students will have a structured look at atomic theory and how it leads to chemical bonding. The course develops problem solving concepts of stoichiometry, thermochemistry, and kinetic theory as it applies to the physical states of matter. Students will gain an insight into different types of chemical reactions, states of matter, acid/base theory, equilibrium and electrochemistry.

Expectations: Students will be required to complete assignments and participate in class and laboratory experiments. They are expected to use mathematical concepts as they pertain to chemical theory and applications in the laboratory experiments.

3306 INTEGRATED PHYSICAL SCIENCE
Grade 10-12
1 Credit/2 Trimesters

Prerequisite: Successful completion of Algebra I, Environmental Biology and Principles of Biology

Objectives: 1. To acquaint students with the laws and theories of chemistry and physics; 2. to acquire skill and competence in laboratory techniques; 3. to explore the applications of chemistry and physics.

Description: This integrated physical science course is primarily developed for students who have completed Environmental Biology and Principles of Biology and are ready for a physical science course. This course is designed to emphasize the connections between chemistry and physics, to help students think analytically like scientists through scientific inquiry in a hands-on setting, and to provide a practical explanation of scientific phenomenon as it relates to their everyday lives, consequently shaping students' future career choices.

Expectations: Students are expected to complete homework assignments and participate in class and laboratory activities. They will build on scientific concepts and develop skill in laboratory procedures and safety.

3314 CONCEPTUAL PHYSICS
Grades 11 - 12
1 Credit/2 Trimesters

Prerequisite: Successful completion of a chemistry course, Algebra I, and Geometry.

Objectives: To provide an understanding of physics in everyday life with concepts and insightful explanations for the non-science oriented students.

Description: Mechanics, sound, light, and electricity will be emphasized.

Expectations: Daily reading and review questions, chapter homework, and lab reports are expected.

3313 PHYSICS
Grades 11 - 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of chemistry and mathematics through advanced algebra. Functions, Statistics, and Trigonometry should be taken concurrently with this course.

Objectives: 1. To prepare students to exist in an increasingly technological society; 2. to develop the students' analytical, problem solving, and laboratory skills; 3. to integrate math and science; 4. integrate computers and science within the context of the laboratory environment.

Description: Physics skills, mechanics, wave motion, light and static electricity are emphasized. Modern (atomic, nuclear, particle) physics may be introduced.

Expectations: Daily homework, periodic chapter homework, and lab reports are expected.

3315 HONORS RESEARCH SCIENCE
Grades 11 - 12
1 Credit/2 Trimesters



Prerequisite: Successful completion of Biology and Chemistry and recommendation of a science teacher

Objectives: 1. To describe the inter-relationship which exists between research, technology, and society; 2. to use primary resources to investigate research topics (e.g. periodicals, journals, Internet, and reports); 3. to distinguish between basic science and research technology; 4. to experience the dynamics of research and how it will impact on their lives in the future.

Description: This independent study course is designed for the junior or senior entering the field of science who has had above average achievement in previous science courses. This course emphasizes individual creativity, self-motivation, and achievement. The student involvement is through independent experimentation developed through both field and laboratory experiences. Research topics can be drawn from a variety of disciplines including botany, zoology, physiology, medicine, bio-chemistry, psychology, and environmental sciences.

Expectations: Students will design and implement a research plan for the resolution of a scientific issue. They will use appropriate science data correlation procedures and construct a well-formed research rationale and hypotheses. They will gather data and information through hands-on experiments and organize this data to draw valid conclusions. Extensive lab work will require an after-school commitment.

3318 ETHICAL ISSUES IN SCIENCE
Grades 11 - 12
.5 Credit/1 Trimester



Prerequisite: Successful completion of biology and chemistry courses.

Objectives: 1. To discuss, investigate, and evaluate the major ethical issues associated with the sciences, technology, and the medical professions; 2. to establish the role science plays in making ethical decisions; 3. to differentiate between ethics and science; 4. to apply logic and scientific evidence to support viewpoints of controversial issues (ex. euthanasia, abortion, environmental concerns).

Description: This class is designed for juniors and seniors interested in examining the ethical dilemmas associated with a range of scientific advancements (ex. stem cell research, cloning) as well as the medical profession, such as doctor-patient relationships. The impact of technology (from genetic engineering to rights of privacy) will be explored within all of these fields. Classic "could-should" conflict will be studied, paying particular attention to arguments from opposite viewpoints and to what the law states. An early emphasis will be placed on understanding the nature of ethics and how it fits into the fabric of society.

Expectations: Students will demonstrate an understanding of current biochemical, environmental, medical, and technological issues. The topics highlighted will require comprehension of cellular biology, genetics, environmental sustainability, and health care issues. The major focus of the class will be the expression of ideas/opinion/points of view through argument, discussion and debate, both formal and informal. Technological presentations as well as a variety of other project formats will also be expected, as examinations only play a portion of the role on grading. Class participation will be an integral part of the class, a research component, and reading in the sciences will most likely be required.

4310 HONORS CHEMISTRY
Grade 10
1.5 Credits/3 Trimesters

Prerequisite: Recommendation of the science teacher or the fulfillment of the honors requirement. Students should have completed or be enrolled in Algebra II or FST.

Objectives: 1. To acquaint students with scientific method of the ideals in chemistry; 2. to develop necessary skills for students to handle and manipulate materials and equipment in the collection of data; 3. to develop students' attitudes and curiosity with chemical phenomena.

Description: Chemical topics, which are developed, include work with chemical reactions, predictions and analysis related to unknown quantities, math relations, and molecular compositions of various chemical states. Mathematical interpretation will be emphasized through each chemical development. Time will be spent within the lab collecting and interpreting data as it applies to the lecture theory. Stoichiometric relations will be developed to predict products and product yield.

Expectations: Students will be required to relate lecture material to laboratory skills necessary to calculate results from the collection of data. Students will be called upon to demonstrate their writing and speaking knowledge of chemical values and reactions. Students will be required to prepare a topic on a specific field of chemistry.

4311 AP BIOLOGY
Grades 11 - 12
1.5 Credits/3 Trimesters

Prerequisite: Chemistry 4310 or 3311 and Biology 3309 or 4309 and teacher recommendation

Objectives: To develop: 1. cellular and molecular concepts and processes; 2. technological applications of biological principles; 3. interaction of biology, technology, and society; 4. understanding and use of biological methodology; 5. investigations of evolution as a unifying theme of biology; 6. relationship between structure and function in plant and animal systems.

Description: The Advanced Placement Biology course is designed to be the equivalent of a college biology course usually taken by biology majors during their first year of college. The course syllabus is adapted from Cornell University's introductory biology program. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing world of biology. The Advanced Placement Biology course is designed to be taken by students after the successful completion of a first course in high school biology and chemistry. Laboratory experience will require after-school or before-school sessions.

Expectations: Extensive homework and laboratory work are required. Students are expected to perform extensive readings in biology. Students will be required to take the AP Biology exam.

4312 AP CHEMISTRY
Grades 11 - 12
1.5 Credits/3 Trimesters

Prerequisite: Completion of Chemistry 3311 or 4310 and Advanced Algebra with a satisfactory grade or fulfillment of the honors requirement. Students should have completed or be enrolled in Functions, Statistics, and Trigonometry concurrently with this course. It is helpful if students have taken or are enrolled concurrently in Physics 3313.

Objectives: To develop the necessary skills for higher level thinking to solve mathematical problems in theory as well as in the lab experiments.

Description: Advanced Placement Chemistry is designed to be the equivalent of a college chemistry course for students majoring in engineering, pre-med, biology or related fields of study. Students attain a depth of understanding of fundamentals and reasonable competence in dealing with chemical problems. The course will also develop a background in organic chemistry helpful to students entering chemistry in college on the second level.

Expectations: Students are expected to complete daily assignments as well as the set-up of data collection and results in lab experiments. Students will be required to take the AP Chemistry exam.

4316 AP PHYSICS I
Grades 11 - 12
1.5 Credits/3 Trimesters

Prerequisite: Successful completion of Biology and Honors Chemistry and enrolled in or completed FST or having the recommendation of their teacher.

Objectives: 1. To prepare the student entering a physical science field 2. to extend the students' problem solving skills; 3. to improve the students' lab skills; 4. to integrate computers with science within the laboratory environment.

Description: Physics 1 is the equivalent to a first-semester college course in algebra-based physics. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits.

Expectations: Extensive homework and reading assignments, occasional lab reports. Students will be required to take the AP Physics exam.

5303hv AP ENVIRONMENTAL SCIENCE

Grade 12

1.5 Credits/3 Terms

Prerequisite: Academic Biology or Honors Biology, Academic Chemistry or Honors Chemistry, Algebra I, and Algebra II, as well as a recommendation from a science teacher. It is also recommended, though not required, that students have taken (or be taking concurrently), a physics course and United States History.

Objectives: The goal of this interdisciplinary course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems (both natural and human-made), to evaluate the risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

Description: The Advanced Placement Environmental Science course is designed to be the equivalent of an introductory college course in environmental science. The following six themes provide a foundation for the structure of the course: (1) Science is a process, (2) Energy conversions underlie all ecological processes, (3) The Earth itself is one interconnected system, (4) Humans alter natural systems, (5) Environmental problems have a cultural and social context, and (6) Human survival depends on developing practices that will achieve sustainable systems. The exploration of these six themes will take form in each of the following key topics: earth systems and resources, the living world, population, land and water use, energy resources and consumption, pollution, and global change.

Expectations: Extensive homework and laboratory work are required. Technical skills are a must, as there will also be a strong digital portion of the course. In addition, students are expected to carry out extensive outside readings, as well as analyze multiple videos. All students enrolled in the course will be required to take the AP Environmental Science exam.

Social Studies

Social Studies assists students in acquiring, understanding, and using information about historical and contemporary affairs.

Requirements

•General Requirements

All students must fulfill the graduation requirement of four years in history/social studies. All students must be enrolled in required history/social studies in at least two trimesters during each of their high school years. Students must successfully complete one grade level course before moving to the next level.

• Grade 9 Requirement

Freshmen students must earn a credit in two trimesters of Global Civics.

• Grade 10 Requirement

Sophomore students must earn a credit in two trimesters of World History (3200, 4210) or 1.5 credits in three trimesters of AP World History (4209).

• Grade 11 Requirement

Junior students must earn a credit in two trimesters of U.S. History (3211) or 1.5 credits in three trimesters of AP US History (4212).

• Grade 12 Requirement

Senior students must earn .5 credit in one trimester of Politics or International Relations Theory and .5 credit in one trimester of Economics or 1.5 credits in three trimesters of AP European History.

•Honors Level Requirement

Admission to Honors Level History/Social Studies courses will be based on:

1. grades in previous history/social studies courses
2. recommendation of the previous year's history/social studies teacher
3. under special circumstances, evaluation by social studies teachers of a reading and analysis completed by the student in an essay format

3208 GLOBAL CIVICS Grade 9 1 Credit/2 Trimesters



Prerequisite: None

Objectives: 1. To develop global citizens who have a firm understanding of the United States government and its role globally; 2. To analyze and evaluate how human rights originated and are protected in the United States and globally; 3. To understand the causes of conflict and the strategies used by governments to resolve them; 4. To understand how issues impact local and global society; 5. To develop the skills of critical thinking, problem solving, communication and collaboration.

Description: The course will provide students with skills and competencies that lead to the development of global civic responsibility. It is an active and applied approach to civics education. Students will develop intellectual skills that help citizens identify, describe, explain, and analyze information and will enable them to evaluate, take, and defend positions on global issues. Students will develop participatory skills that enable citizens to monitor and influence civic life by working with others, expressing ideas, and managing conflict.

Expectations: Students will complete assigned readings, course assignments, projects, tests and quizzes. Students will actively participate in individual and group activities for the course using technology.

3210 WORLD HISTORY
Grade 10
1 Credit/2 Trimesters



Prerequisite: Successful completion of American Civics

Objectives: 1. To provide students with a solid historical background and the critical thinking skills necessary in understanding events which have shaped today's world; 2. Students will examine social, political, intellectual, and economic philosophies while gaining a greater appreciation for world diversity.

Description: The course will take a global approach to world studies, spanning European, Asian, and African histories. The time period of study will be from the Middle Ages to the modern times. Topics include: Medieval Europe, Byzantine, Islamic, Asian and African civilizations, the Renaissance and Reformation, Exploration and Colonization, the Enlightenment and French Revolution, the growth of European States, Nationalism, European Imperialism, the World Wars, Fascism, the Russian Revolution, and current issues.

Expectations: Students will be expected to actively participate in group activities, complete course assignments, exams, quizzes, and projects.

4210 HONORS WORLD HISTORY
Grade 10
1 Credit/2 Trimesters



Prerequisite: Successful completion of American Civics and fulfillment of the honors requirement

Objectives: 1. To provide students with a solid historical background and the critical thinking skills necessary in understanding events which have shaped today's world; 2. students will examine social, political, intellectual, and economic philosophies while gaining a greater appreciation for world diversity.

Description: Honors World History takes a global approach to world studies, beginning with the Middle Ages to modern times. Emphasizing place, time, and significance, these courses will show the continuity of history and the human condition, the sweeping forces that shaped events, and the influence of each era upon succeeding times. Because this is an honors course, there is greater emphasis on essay writing, oral presentations, and the use of challenging reading materials.

Expectations: Students will be expected to actively participate in group activities, complete course writing assignments, projects, exams, and quizzes. The students will successfully complete a project involving written research and a creative/oral presentation. The students will read books from a selected bibliography in addition to text; supplemental readings will be offered. Exams and assignments will be largely essay in nature and will include an analysis of historical writings.

4209 AP WORLD HISTORY
Grade 10
1.5 Credits/3 Trimesters



Prerequisite: An A average in Global Civics and teacher recommendation. As this is a writing intensive course, an Honors English background is highly recommended. This is a college level course.

Objectives: 1. To prepare students to successfully take the AP exam; 2. To adequately prepare students for a college level World History course.

Description: This world history survey course covers world history from approximately 8000 BCE through the modern era. The course gives students a greater understanding of the evolution of global societies in terms of political, religious, social, technological and economic development and emphasizes the interaction of these forces as well as the interaction of societies. It emphasizes relevant factual knowledge utilized in conjunction with analysis of major historical continuities and changes over time. Students analyze a wide variety of historical sources, including historiography arguments as well as primary and secondary sources.

Expectations: **This is a writing intensive course.** Students are expected to complete assigned summer work, including readings and essays, prior to the beginning of the course. In addition, they will fulfill requirements in the areas of readings, mock trials, simulations, writings, and testing. Students may expect to cover roughly one content chapter per week. Frequent writing assignments, including both analytical and creative writings, will be assigned and students are expected to write at a college level. **Students are required to take the AP World History exam.**

3211 U.S. HISTORY
Grade 11
1.0 Credit/2 Trimesters

Prerequisite: Successful completion of World History 3210

Objectives: 1. To extend students' awareness of the political, social, economic, and diplomatic history of the United States; 2. to develop an awareness of the relationship between past events and contemporary society.

Description: The major focus of the course is from the Spanish-American War to the present. The year is devoted to the 20th century. Students investigate the emergence of the United States as a world power, the various political developments faced by our democracy, the economic problems faced by changing conditions and the various social movements which have reshaped the basic fabric of American society.

Expectations: The students will develop a basic knowledge of America's past. Even more importantly, the students will analyze and interpret why historical decisions occurred and how they influence contemporary society.

4211 HONORS U.S. HISTORY
Grade 11
1.0 Credit/2 Trimesters

Prerequisite: Completion of World History 4210 and fulfillment of the honors requirement. As this is a writing intensive course, Honors English highly recommended.

Objectives: 1. To provide an intensive analysis of the causes, significance, and interrelation of historical events and culture. 2. To develop skills to interpret, contextualize, relate and think critically about historical writings and mass media at an honors level.

Description: The course provides an in-depth analysis of U.S. history from the Age of Imperialism to the present. Students will explore the major events, policy, and decisions thematically through a combination of intensive reading, lectures, Socratic discussion and problem-solving simulations. The students will learn to read historical materials analytically and critically, weighing historical evidence and interpretations and arriving at conclusions on the basis of informed judgment.

Expectations: Frequent writing assignments, including both analytical and creative writings, will be assigned; students are expected to write at an honors level. Students will be required to read and analyze a variety of primary source documents each week outside of class. In addition they will fulfill requirements in the areas of short journal entries, simulations, creative projects, and testing.

4212 AP U.S. HISTORY
Grades 11 - 12
1.5 Credit/3 Trimesters

Prerequisite: Successful completion of Honors World History and teacher recommendation. As this is a writing intensive course, Honors English highly recommended. This is a college level course.

Objectives: 1. To prepare students to successfully take the AP exam; 2. to adequately prepare students for a college level U.S. History course.

Description: The course gives students a thorough grounding of U.S. history from the early colonial period to the present as well as a framework for examining the context and significance of this history. The students learn to read historical materials analytically and critically, weighing historical evidence and interpretations and arriving at conclusions on the basis of informed judgment.

Expectations: This is a writing intensive course. Students are expected to complete assigned summer work, including readings and essays, prior to the beginning of the course. Students will read over one chapter per week as well as a wide variety of journal readings. In addition they will fulfill requirements in the areas of readings, simulations, writings, and testing. Frequent writing assignments, including both analytical and creative writings, will be assigned; students are expected to write at a college level. **Students are required to take the AP U.S. History exam.**

3213 ECONOMICS
Grade 12
.5 Credit/1 Trimester



Prerequisite: Successful completion of U.S. History 3211

Objectives: 1. To examine the role of the U.S. in the global economy; 2. to examine basic economic concepts and functions of the American system through the roles of the individual, businesses, and the government; 3. to develop personal responsibility for sound financial management and decision making. 4. to prepare students to be responsible, enterprising individuals who become entrepreneurial thinkers; 5. to build career competencies and skills desired by future employers.

Description: Economics introduces students to basic economics concepts; personal financial management and decision-making and the role of the United States in the international economy. In addition, students will have an opportunity to create and implement a concept, marketing strategy, and organizational design for a student-run business. They will learn the proper use of equipment necessary for the operation of the business. They will learn the enterprising skills related to creativity, initiative, problem solving, decision-making and customer service.

Expectations: Students will complete assigned readings from current publications, assignments, tests, and projects. Students will actively participate in all class and business activities. Students will be responsible for the daily operation, product selection, inventory, ordering and finances of the business. All profits from the business are used to fund the service projects selected by the class.

8210 INTERNATIONAL RELATIONS THEORIES
Grade 12
.5 Credit/1 Trimester



Prerequisite: Completion of US History or AP US History

Objectives: 1. To become familiar with the structure and system of International Relations; 2. to gain an awareness of the major theories analyzing International Relations; 3. to apply these theories to historical and current events in International Relations; 4. to gain an awareness of the process of Globalization and the various political attitudes toward this process.

Description: The students will examine the field of International Relations in six units and two learning activities. The units will consist of major factors that structure International Relations in a unit each on the four major theories and a unit on Globalization. The two learning activities will be a diplomacy simulation game and a simulation about the Cuban Missile Crisis based on the movie, "Thirteen Days."

Expectations: The students will need to do the nightly reading assignments to gain a basic knowledge of the difficult concepts that are covered in class. The students will need to be willing to engage in critical discussion of the various concepts and theories.

3212 POLITICS
Grade 12
.5 Credit/1 Trimester



Prerequisite: Successful completion of U.S. History 3211

Objectives: 1. To develop an awareness of and appreciation of our rights as U.S. citizens; 2. to develop a positive attitude about individual participation in the democratic process; 3. to analyze current issues from an international and geographical perspective.

Description: Students will explore political ideologies; the formation and functions of U.S. political parties and special interest groups; elections and their role as voters; jury service and their role as active citizens; and U.S. domestic and foreign policy. Historical and current interpretations of their rights are analyzed through current case studies and court decisions.

While solidifying their knowledge of geographical locations, students will use specific case studies of hot spots in the world to analyze concepts that influence international affairs.

Expectations: Students will complete assigned readings from current publications, assignments, tests, and quizzes. Students will actively participate in activities and simulations. Students will become more aware of where they are on the political spectrum. Students will become more knowledgeable about current issues in order to become better informed voters.

4213 AP EUROPEAN HISTORY
Grade 11 or 12
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of World History 4210 and/or U.S. History 4211 and fulfillment of the honors requirement. This is a college level course.

Objectives: 1. To develop scholarship through their involvement with the collegiate skills of organizing, preparation, research, conceptualizing, and writing; 2. to analyze the political, diplomatic, social, economic, military, and intellectual factors that have shaped Europe.

Description: The course will begin with an examination of conditions that have occurred in Europe beginning in the 10th century and concluding with present day conditions. Special emphasis is placed on the development of national cultures, the struggles and conflicts of emerging nations, the evolution of philosophical and ideological theories, the development of social groups, the influence of two world wars and the changing government structures.

Expectations: A thorough examination of the textbook, as well as numerous outside readings are required. Detailed quizzes and major exams are a regular occurrence. A mid-term exam and a research paper are also part of the course. **Students are required to take the AP European History exam.**

8211 INTRODUCTION TO PSYCHOLOGY
Grades 9 – 12
.5 Credit/1 Trimester

Prerequisite: None

Objectives: To gain a thorough understanding of psychological science from its' beginnings to present day. 2. To develop an understanding of the approaches and perspectives by which one can approach psychology. 3. To become familiar with the branches of psychology and their applications. 4. To apply knowledge gained in class to real-life situations.

Description: Introduction to Psychology provides an overview of current psychological research methods and theories. The primary areas of course study will follow the APA National Standards for High School Psychology including; psychological methods, biopsychology, cognitive psychology, developmental psychology, social psychology, and abnormal psychology. Students will explore core psychological concepts such as, biological bases of behavior, motivation, life span development, personality, cognition, learning, memory, psychological disorders/treatments, and social and cultural dimensions of behavior.

Expectations: Students are expected to participate regularly in class, complete all lab assignments, applications papers, homework assignments, and also to prepare diligently for all quizzes and exams.

4350 AP PSYCHOLOGY

Grades 11-12

1 Credit/2 Trimesters

Prerequisite: Successful completion of Introduction to Psychology and teacher recommendation.

Objectives: 1.) To gain a thorough understanding of psychological science from its' beginnings to present day. 2.) To develop an understanding of the approaches and perspectives by which one can approach psychology. 3.) To become familiar with the branches of psychology and their applications. 4.) To apply knowledge gained in class to real-life situations.

Description: The AP Psychology course is designed to be the equivalent of a college psychology course and to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Students will also learn about the ethics and methods psychologists use in their science and practice. The primary areas of course study will follow the APA National Standards for High School Psychology including; psychological methods, biopsychology, cognitive psychology, developmental psychology, social psychology, and abnormal psychology.

Expectations: Extensive homework, reading, and writing are required. Students are required to take the AP Psychology exam.

8220 CRIMINAL AND CIVIL LAW

Grades 9-12

.5 Credit/1 Trimester



Prerequisite: None

Objectives: 1.) To develop an understanding of the rights of citizens, with an emphasis on the rights of minors. 2.) To develop an understand of criminal and civil court procedures. 3.) To analyze how Pennsylvania school law impacts students. 4.) To compare and contrast legal systems throughout the world.

Description: This course will provide an overview of the criminal and civil legal systems in the United States. Topics of study include the criminal and civil trial procedure, an examination of common criminal charges and civil litigations, and a study of Pennsylvania school law. This pre-law focused course will provide an overview of both the Federal and State legal systems. While the focus of the course will be American law, students will also compare and contrast the American legal system with other systems of law throughout the world.

Expectations: Students are required to participate in class, complete all homework assignments, readings, projects, and prepare thoroughly for all exams.

8860 MODERN HISTORY THROUGH POP CULTURE

Grades 11-12

.5 Credit/1 Trimester

Prerequisite: Completion of or simultaneous enrollment in AP US History or US History

Objectives: To gain a thorough understanding of modern United States history through the vehicle of pop culture.

Description: Modern History through Pop Culture will look at major political events/issues and social changes in the United States from the post-World War II era to the present through the vehicle of pop culture. Major topics will include The Changing Family Changing Social Mores, Race & Ethnicity in America, Changes in 'War' Movies over Time, and Political Commentary & Satire. We will look at how various events and social issues are dealt with in TV and film and how changes in "presentation" of issues change over the decades. The changing family/gender roles will be studied through iconic shows of the 1950s like *I Love Lucy*, *The Donna Reed Show*, and *Leave it to Beaver* in the 50s, to current shows including *Modern Family*. Issues regarding changing attitudes about race/ethnicity would be covered in movies like *Guess Who's Coming to Dinner*, *All in the Family*, *The Jeffersons*, and *The Cosby Show*. Additionally, dealing with issues of war might include changing portrayals of the Vietnam War via sections of movies from John Wayne's *The Green Berets* and *The Deer Hunter*, TV shows like *MASH*, *Homefront*, and *China Beach*, through more recent films about the Iraq War. Finally, we will study political commentary and political satire through serious movies like *Good Night & Good Luck* as well as selections of humorous shows like *Laugh-In*, *SNL*, *The Colbert Report*, and *The Daily Show*.

Expectations: Students are expected to attend and participate regularly in class, use prior knowledge of US history to make connections to issues studied in the course, and complete all written assignments.

4214 AP US GOVERNMENT AND POLITICS QVO

Grades 11 - 12

.75 Credit/1 Semester (Half of Year)

Prerequisite: Successful completion of Honors U.S. History

Standards: The College Board topic outline for AP U.S. Government and Politics

Description: AP U.S. Government and Politics studies the structure and operations of the U.S. government and the behavior of the electorate and politicians. Students will gain the analytic perspective necessary to critically evaluate political data, hypotheses, concepts, opinions, and processes. Along the way, they'll learn how to gather data about political behavior and develop their own theoretical analysis of American politics. They'll also build the skills they need to examine general propositions about government and politics, and to analyze the specific relationships between political, social, and economic institutions. The equivalent of the introductory college-level course, AP U.S. Government and Politics prepares students for the AP Exam and for further study in political science, law, education, business and history.

4215 AP MACROECONOMICS QVO

Grades 11 - 12

.75 Credit/1 Semester (Half of Year)



Prerequisite: Successful completion of Honors Advanced Algebra; AP Microeconomics

Standards: The College Board topic outline for AP Macroeconomics

Description: AP Macroeconomics students learn why and how the world economy can change from month to month, how to identify trends in our economy, and how to use those trends to develop performance measures and predictors of economic growth or decline. They'll also examine how individuals, institutions, and influences affect people, and how those factors can impact everyone's life through employment rates, government spending, inflation, taxes, and production. The equivalent of a 100 level college-level class, this course prepares students for the AP Exam and for further study in business, political science and history.

4216 AP MICROECONOMICS QVO

Grades 11 - 12

.75 Credit/1 Semester (Half of Year)

Prerequisite: Two years of Social Studies

Standards: The College Board topic outline for AP Microeconomics

Description: AP Microeconomics studies the behavior of individuals and businesses as they exchange goods and services in the marketplace. Students will learn why the same product costs different amounts at different stores, in different cities, and at different times. They'll also learn to spot patterns in economic behavior and how to use those patterns to explain buyer and seller behavior under different economic conditions. Microeconomics studies the economic way of thinking, understanding the nature and function of markets, the role of scarcity and competition, the influence of factors such as interest rates on business decisions, and the role of government in promoting a healthy economy. The equivalent of an introductory college-level course, AP Microeconomics prepares students for the AP Exam and for further study in business, history, and political science.

World Language

The primary goal of World Language is to develop linguistic proficiency and cultural sensitivity in order to prepare students to participate in our global society. The four essential skills of listening, speaking, reading, and writing are balanced within each level, and students increasingly develop their communicative skills as they deepen their appreciation of other cultures.

It is recommended that students take at least two years of the language they select. Those who plan to study languages, literature, the humanities, or fine arts in college should make every effort to complete four years of language study in high school. Many competitive colleges and universities require a minimum of three years of world language study for admittance. Students should familiarize themselves with the requirements of schools that they may be considering.

Courses are offered only if there is sufficient enrollment.

3525 FRENCH I Grades 9 – 12 1.5 Credits/3 Terms



Prerequisite: None.

Description: In French I, students will begin to acquire proficiency in listening, speaking, reading, and writing in the target language, with major emphasis being placed on oral communication. Students will progressively develop proficiency skills through numerous and varied oral and written exercises set in meaningful and personalized contexts. Students will gain an increased knowledge and appreciation of the Francophone world abroad and in the United States. This course will help prepare students to participate in a multi-cultural and diverse global society.

Expectations: Students are expected to demonstrate success in oral and written proficiency assigned in the classroom setting as well as independently or in small groups. Frequent oral and written assessment, regular lesson quizzes, unit exams, and/or group or individual projects. A final grade of at least a C is required to advance to the next level.

3528 FRENCH II Grades 9 - 12 1.5 Credits/3 Trimesters



Prerequisite: Successful completion of middle school French or successful demonstration of proficiency.

Description: In French II, students continue to develop proficiency skills as they increase their ease and confidence in communicating in French on a daily basis. Students' knowledge and usage of structural foundations are expanded and implemented in all four areas of proficiency. Further cultural inquiries assist students to comprehend the role of French-speaking countries in various aspects of civilization, both contemporary and throughout the centuries.

Expectations: Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessment will include quizzes, exams, readings, in-class formal and informal writings, oral presentations, and in-depth individual or group projects. A final grade of at least a C is required to advance to the next level.

3529 FRENCH III Grades 9-12 1.5 Credits/3 Trimesters



Prerequisite: Successful completion of French II as well as teacher recommendation.

Description: In French III, students continue to build on a solid foundation of grammar and vocabulary in order to enable students to become more proficient in French. Vocabulary acquisition in context and basic language structures from previous courses are supplemented and developed progressively. Through an interweaving of language and culture, French III will broaden students' communication skills while deepening their appreciation of other cultures. This course will help students to be linguistically and culturally prepared to participate in our global society as well as in comprehending and negotiating meaning in French. The class will be taught mostly in French. It is expected that students will use French in class to ask questions and communicate needs.

Expectations: Students are expected to actively participate in class discussions and activities in the target language. Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessment will include quizzes, exams, readings, in-class formal and informal writings, oral presentations, and in-depth individual or group projects.

4520 HONORS FRENCH IV
Grades 11 – 12 or Proven Proficiency
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of French 3 as well as teacher recommendation

Objectives: 1. To review and continue to build on vocabulary and structures from previous years and French-learning experiences. 2. To explore and master new and more advanced language tasks in the core areas of reading, writing, speaking, and listening. 3. To develop a familiarity and appreciation for French and francophone literature through selected authors and works. 4. To prepare students with a strong foundation for AP French, should they decide to continue their language study.

Description: In Honors French 4, students will explore the language through different mediums, such as literature, native speakers, and cultural activities. The students will refine their language skills and strive to increase their language proficiency. Students will read, interpret, and discuss selections from French and francophone literature. This class is conducted almost exclusively in French.

Expectations: Students are expected to read, analyze, and be able to discuss literary selections. They should be able to function in all four areas of reading, writing, speaking, and listening in French on an intermediate level, as described by the ACTFL (American Council on the Teaching of Foreign Languages) scale. This course is a preparatory course for AP French; however, the student is not required to move on to AP beyond this course. Students are expected to actively participate in class discussions and activities in the target language.

4314 AP FRENCH
Grade 12 or Proven Proficiency
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of Honors French 4 as well as teacher recommendation.

Objectives:

1. To offer students a college level course that explores the French cultures and language.
2. To further increase the proficiency level in the four language skills of speaking, reading, writing, and listening.
3. To prepare students for the AP French language test.

Description: This course is designed as an intensive preparation for students that continue in French. They will explore the language through different mediums, such as literature, native speakers, and cultural activities. The students will refine their language skills and strive to increase their language proficiency. This course will also further develop the language skills that students need to take the AP French language test. This course is conducted exclusively in French.

Expectations: In AP French, students will be able to function in all four areas of reading, writing, speaking, and listening in French on an intermediate/advanced level, as described by the ACTFL (American Council on the Teaching of Foreign Languages) scale. They are expected to read, analyze, and to be able to discuss literary selections. Students are expected to actively participate in class discussions and activities in the target language. Students are required to take the AP French language exam.

3510 GERMAN I
Grades 9 - 12
1.5 Credits/3 Trimesters



Prerequisite: None

Description: This is an introductory course in German Language and Culture with emphasis on communication skills in the German language as well as understanding daily life in German speaking countries. Students will learn to use basic vocabulary and grammatical structures in the four areas of proficiency, reading, writing, listening and speaking. This course will prepare students to participate in the Quaker Valley German Exchange program both at home and/or abroad, if they choose.

Expectations: Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessments, lesson quizzes, unit exams, and individual/group projects are some forms of evaluation that will be used. Also, out-of-class readings and active participation in discussions will be an integral part of the class. A final grade of at least a C is required to advance to the next level.

3530 GERMAN II
Grades 9 - 12
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of middle school German or demonstration of proficiency

Description: Students continue to develop proficiency skills as they increase their ease and confidence in communicating in German on a daily basis. Students' knowledge and usage of structural foundations are expanded and implemented in all four areas of proficiency. Further cultural inquiries assist students to comprehend the role of German speaking countries both within the European Union and globally.

Expectations: Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessments, lesson quizzes, unit exams, and individual/group projects are some forms of evaluation that will be used. Also, out-of-class readings and active participation in discussions will be and integral part of the class. A final grade of at least a C is required to advance to the next level.

3545 GERMAN III
Grades 10 - 12
1.5 Credit/3 Trimesters



Prerequisite: Successful completion of German II as well as teacher recommendation

Description: In German III, students continue to build on a solid foundation of grammar and vocabulary in order to enable students to become more proficient in German. Vocabulary acquisition in context and basic language structures from previous courses are supplemented and developed progressively. Through an interweaving of language and culture, German III will broaden students' communication skills while deepening their appreciation of other cultures. This course will help prepare students to be linguistically and culturally prepared to participate in our global society as well as in comprehending and negotiating meaning in German. The class will be taught in German 70% of the time, with grammar explanations and other clarifications being the only exceptions. It is expected that students will use German in class to ask questions and communicate needs.

Expectations: Out-of-class reading, active participation in class discussions, various types of oral presentations, video productions, advanced work in stylistic writings, interpretations, and translations, and in-depth group and individual projects. Complete usage of the target language for all forms of communication is strongly encouraged.

4525 HONORS GERMAN IV
Grade 11 or proven proficiency
1.5 credits/3 terms



Prerequisite: A letter grade of "B" or better in German III

Objectives:

1. To review and expand vocabulary and structures from previous course work in German
2. To explore and master new and more advanced language tasks in the core areas of reading, writing, speaking, and listening.
3. To develop a familiarity and appreciation for German literature through selected authors and their work.
4. To prepare students with a strong foundation for travel and home stay in Germany through our student exchange program with Buxtehude.

Description: Students read, interpret, and discuss selections from selected literature including current events from magazines and newspapers. Oral proficiency skills continue to be developed through topical conversations, creative dramatizations, and class discussions.

Expectations: Students are expected to read, analyze, and be able to discuss literary selections. They will complete a project in which they create a lesson and teach the class. They should be able to function in all four areas of reading, writing, speaking, and listening in German on an intermediate level, as described by the ACTFL (American Council on the Teaching of Foreign Languages) scale. This course is a preparatory course for AP German, when offered, and students will participate in the AATG National German Exam.

3544 SPANISH II
Grades 9 – 12
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of middle school Spanish or demonstration of proficiency

Description: Students continue to develop proficiency skills as they increase their ease and confidence in communicating in Spanish on a daily basis. Students' knowledge and usage of structural foundations are expanded and implemented in all four areas of proficiency. Further cultural inquiries assist students to comprehend the role of Spanish-speaking countries in various aspects of civilization.

Expectations: Students are expected to demonstrate success in oral and written proficiency tasks in the classroom setting as well as independently or in small groups. Frequent oral and written assessments, lesson quizzes, unit exams, and individual/group projects are some forms of evaluation that will be used. Also, out-of-class readings and active participation in discussions will be an integral part of the class. A final grade of at least a C is required to advance to the next level.

3541 SPANISH III
Grades 10 - 12
1.5 Credit/3 Trimesters



Prerequisite: Successful completion of Spanish II as well as teacher recommendation

Description: In Spanish III, students continue to build on a solid foundation of grammar and vocabulary in order to enable students to become more proficient in Spanish. Vocabulary acquisition in context and basic language structures from previous courses are supplemented and developed progressively. Through an interweaving of language and culture, Spanish III will broaden students' communication skills while deepening their appreciation of other cultures. This course will help prepare students to be linguistically and culturally prepared to participate in our global society as well as in comprehending and negotiating meaning in Spanish. The class will be taught in Spanish 70% of the time, with grammar explanations being the only exception. It is expected that students will use Spanish in class to ask questions and communicate needs.

Expectations: Out-of-class reading, active participation in class discussions, various types of oral presentations, video productions, advanced work in stylistic writings, interpretations, and translations, and in-depth group and individual projects. Complete usage of the target language for all forms of communication.

4503 HONORS SPANISH IV
Grade 11 or proven proficiency
1.5 Credits/3 Trimesters



Prerequisite: A letter grade of “B” or better in Spanish IV

Objectives:

1. To review and continue to build on vocabulary and structures from previous years and Spanish-learning experiences.
1. To explore and master new and more advanced language tasks in the core areas of reading, writing, speaking, and listening.
2. To develop a familiarity and appreciation for Peninsular and Latin American literature through selected authors and works.
3. To prepare students with a strong foundation for AP Spanish, should they decide to continue.

Description: Students read, interpret, and discuss selections from Hispanic literary classics from the 16th, 19th and 20th centuries. Readings vary from the classic literature of Spain to the modern poetry and fiction of authors from South and Central America and the Caribbean. Students also read about and discuss the cultural heritage of Hispanic Americans and the issues facing them as they become a driving force in the society of the United States. Oral proficiency skills continue to be developed through topical conversations, creative dramatizations, and discussions of newspaper and magazine articles and other materials.

Expectations: Students are expected to read, analyze, and be able to discuss literary selections. They will complete a project in which they create a lesson and teach the class. They should be able to function in all four areas of reading, writing, speaking, and listening in Spanish on an intermediate level, as described by the ACTFL (American Council on the Teaching of Foreign Languages) scale. This course is a preparatory course for AP Spanish, however, the student is not required to move on to AP beyond this course. This class is conducted 100% in Spanish.

4512 AP SPANISH
Grade 12
1.5 Credits/3 Trimesters



Prerequisite: Successful completion of Pre-AP Spanish as well as teacher recommendation

Objectives: 1. To offer students a college level course that explores the Hispanic cultures and language; 2. to further increase the proficiency level in the four language skills of speaking, reading, writing, and listening; 3. to prepare students for the AP Spanish language test.

Description: This course is designed as an intensive preparation for students that continue in Spanish. They will explore the language through different mediums, such as literature, native speakers, and cultural activities.. The students will refine their language skills and strive to be more proficient. This course will also further develop the language skills that students need to take the AP Spanish language test.

Expectations: Active and willing class participation, extensive oral and written activities, use of the target language at all times. Students are required to take the AP Spanish language exam.

5501hv MANDARIN CHINESE
Grades 9 – 12
1.5 Credits/3 Trimesters



Prerequisites: None.

Description: Mandarin Chinese is a year long, full credit course. Students can participate in the course via Distance Learning via the Live Video Network at their high school and do not need to travel to A.W. Beattie Career Center. This course offers students an introduction to Mandarin Chinese. In addition to building a meaningful vocabulary, students will learn the basic concepts of sentence structure, pronunciation and writing. The course curriculum will follow the model used by the Confucius Institutes across North America. This model has been in place for several years and has been very successful.

Career Technical Center Programs at Parkway West (Oakdale Campus)

The following programs are available to Quaker Valley High School students at Parkway West Career and Technical Center. Students attend Quaker Valley on a half-day basis for academic classes, health, and physical education; the other half of the day is spent in the program at Parkway.

Several programs offer a tech prep option in which the four year Parkway students are assured a **three-year program**. The fourth year can consist of an internship in the area of the student's technical program.

9911 AUTO BODY REPAIR I
9912 AUTO BODY REPAIR II
9913 AUTO BODY REPAIR III
Grades 9 - 12
4.5 Credits/Year

This program offers instruction in the most current techniques for repairs and replacement of damaged auto body parts. Students learn to remove dents and to replace quarter panels, door skins, and fenders. The program includes painting, MIG welding, collision repair, frame straightening, and damage analysis. Students gain experience in detailing, custom painting, mixing and tinting paint, and computerized estimating. This program is certified by the National Automotive Technology Education Foundation.

9914 AUTOMOTIVE TECHNOLOGY I
9915 AUTOMOTIVE TECHNOLOGY II
9916 AUTOMOTIVE TECHNOLOGY III
Grades 9 - 12
4.5 Credits/Year

This program is certified by the National Automotive Technology Education Foundation and affiliated with all of the major automotive manufacturers through Automotive Youth Educational Systems. Students prepare to take the Pennsylvania State Inspection License examination. Students learn basic vehicle maintenance, repair, and replacement of drive trains, brake systems, chassis components, and fuel and electrical systems. Special emphasis is placed on troubleshooting and engine performance via the use of state-of-the-art electronic diagnostic equipment. Practical experience is also provided in the auto repair shop.

9920 CONSTRUCTION TECHNOLOGY CLUSTER I
9921 CONSTRUCTION TECHNOLOGY CLUSTER II
9922 CONSTRUCTION TECHNOLOGY CLUSTER III
Grades 9 - 12
4.5 Credits/Year

First-year students spend nine weeks in each of the four courses offered in the Construction Technology Cluster: Heating, Ventilation, Air Conditioning and Refrigeration; Electrical Systems Technology; Building Construction Technology and Masonry. Upon successful completion of the one-year rotation, students will choose a concentration for the remainder of their enrollment at PWCTC.

9929 COSMETOLOGY I
9930 COSMETOLOGY II
9931 COSMETOLOGY III
Grades 9 - 12
4.5 Credits/Year

Students who successfully complete 1250 hours of instruction in the Cosmetology program are eligible to take the Pennsylvania State Board of Cosmetology Examination and become certified as licensed cosmetologists. Cosmetology prepares students to perform technical services including all aspects of hair, skin/nail beautification, and personal maintenance. These skills are supported and reinforced with theoretical background including sanitation, chemistry, anatomy and physiology, as well as structure, function, and disorders of the hair, skin, nails, and scalp.

9968 CULINARY ARTS I
9969 CULINARY ARTS II
9970 CULINARY ARTS III
Grades 9 - 12
4.5 Credits/Year

The Culinary Arts program provides practical instruction in the preparation of banquet, buffet, and a la carte styles of food preparation. Practical experience is provided through the operation and management of an in-house, full-service restaurant and beyond the restaurant environment to provide goods and services for Parkway's food store, where pastries and select meats are sold. Students learn to design cakes, sculpt ice, and prepare many different types of cuisine.

9923 DIGITAL MULTIMEDIA I
9924 DIGITAL MULTIMEDIA II
9925 DIGITAL MULTIMEDIA III
Grades 9 - 12
4.5 Credits/Year

The Digital Multimedia Technology program provides instruction in basic graphic design using computers and design software such as Adobe Illustrator, Acrobat, Photoshop, InDesign, and Dreamweaver. Students learn entry-level skills for desktop publishing, web design, digital photography, and graphic animation utilizing Flash. Several software applications are used to design, edit, and publish documents, images, and multimedia presentations in print and electronic form. Students can earn the Adobe Certified Associate certification in Visual Communication and the Adobe Certified Associate in Web Communication certification via Certiport.

9947 HEALTH ASSISTANT I
9948 HEALTH ASSISTANT II
9949 HEALTH ASSISTANT III
Grades 9 – 12
4.5 Credits/Year

The Health Assistant program is a dynamic, well-rounded view of several health occupations for students to explore. Students in this program have the opportunity to participate in a wide-range of real-world clinical and job shadowing experiences at many different local healthcare providers such as hospitals and other medically related facilities. Clinical experiences may include: child care, long-term care, emergency nursing, recovery room nursing, radiology, medical records, operating room observation, pharmacy, physical/occupational therapy, and/or lab technician.

9932 INFORMATION TECHNOLOGY ESSENTIALS I
9933 INFORMATION TECHNOLOGY ESSENTIALS II
9934 INFORMATION TECHNOLOGY ESSENTIALS III
Grades 9 – 12
4.5 Credits/Year

The Information Technology program prepares students who are interested in networking and computer diagnostics. It begins with Cisco IT Essentials, PC hardware and software, and network operating systems. Students initially prepare for CompTIA A+ and CompTIA Server+ certifications and then, through the Cisco CCNA Discovery course, students learn networking concepts based on typical networks that one might encounter in a home or small office, or in larger, more complex enterprise models. Finally, students can prepare for the Cisco CCENT and Cisco CCNA certifications.

9977 PUBLIC SAFETY TECHNOLOGY I
9978 PUBLIC SAFETY TECHNOLOGY II
9979 PUBLIC SAFETY TECHNOLOGY III
Grades 9 – 12
4.5 Credits/Year

The Public Safety Technology program focuses on careers relating to emergency medical services, firefighting, law enforcement, and emergency management services. In order to successfully complete the program, students must meet minimum proficiency levels in all public safety areas. Instruction is provided in disaster situations/management, hazardous materials handling, pre-hospital medical care, map reading, firefighting, the judicial system, and emergency dispatching.

9987 VETERINARY TECHNOLOGY I
9988 VETERINARY TECHNOLOGY II
9989 VETERINARY TECHNOLOGY III
Grades 9 – 12
4.5 Credits/Year

Veterinary Technology or “Vet Tech” students will learn to keep medical records, schedule, offer client education, practice laboratory procedures, assist with nursing duties, prepare for surgeries, and assist during a routine exam. Students will also gain a solid educational base on which to build a post-secondary degree.

9938 WELDING TECHNOLOGY I
9939 WELDING TECHNOLOGY II
9940 WELDING TECHNOLOGY III
Grades 9 -12
4.5 Credits/Year

Welding Technology covers several types of welding processes by which metal may be bent, cut or welded together. Students will learn the importance of industry safety, measuring instruments, hand tools, grinders, metallurgy, blueprint reading, electrical principles, layout/design, and fabrication, as well as how to prepare materials lists for cost estimates. Students have the opportunity to earn several American Welding Society (AWS) certifications.



Parkway West Career & Technology Center Career Majors

Note: Students who successfully complete Parkway West CTC programs may be eligible to earn articulated college credit from the following post-secondary institutions:

Art Institute of Pittsburgh
Belmont College
Butler County Community College
California University of Pennsylvania
Community College of Allegheny County
Empire Education Group
Indiana University of Pennsylvania
ITT Technical Institute

New Castle School of Trades
Pennsylvania College of Technology
Pittsburgh Culinary Arts Institute
Pittsburgh Technical Institute
Rosedale Technical Institute
Triangle Tech, Inc.
University of Northwest Ohio

Scholarships and awards from the above post-secondary institutions and from industry may also be available.

AUTO BODY REPAIR

The Auto Body Repair program is certified by the National Automotive Technology Education Foundation (NATEF) and provides instruction in the most current techniques for repair and replacement of damaged automobile parts. Students learn to repair collision damage and to replace quarter panels, door skins, and fenders. The curriculum also includes painting, MIG welding, collision repair, frame straightening, and damage analysis. Students gain experience in mixing and tinting paint, custom painting, computerized estimating, and auto detailing. Practical experience is also provided through a full-service auto body repair shop. Students have the opportunity to earn PPG Blue Level Paint and I-Car MIG Welding certifications. They are also eligible to earn I-Car Points.

AUTOMOTIVE TECHNOLOGY

Automotive Technology is certified by the National Automotive Technology Education Foundation (NATEF) and affiliated with all of the major automotive manufacturers through Automotive Youth Educational Systems (AYES). Students prepare to take the Pennsylvania State Inspection License examination. Students learn basic vehicle maintenance, repair, and replacement of drive trains, brake systems, chassis components, and fuel and electrical systems. Special emphasis is placed on troubleshooting and engine performance via the use of state-of-the-art electronic diagnostic equipment. Practical experience is also provided in the auto repair shop. Under the Automotive Youth Educational Systems (AYES) apprenticeship program, students may qualify to become an apprentice working under mentor technicians. Students can earn certifications from AYES, the National Institute for Automotive Service Excellence (ASE), and the Coordinating Committee for Automotive Repair (CCAR).

CONSTRUCTION TECHNOLOGY CLUSTER

First-year students spend one nine week period in each of the following four courses offered in the Construction Technology Cluster. They are: Building Construction Technology; Electrical Systems Technology ; Heating, Ventilation, Air-Conditioning and Refrigeration ; and Masonry. Upon successful completion of the one-year rotation, students will choose a concentration for the remainder of their enrollment at PWCTC:

BUILDING CONSTRUCTION TECHNOLOGY

A student in the Building Construction Trades program will apply technical knowledge and skills to layout, fabricate, erect, install and repair structures and fixtures using hand and power tools, scaffolding, and specialty tools used in the construction trade. This program includes instruction in common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card.

ELECTRICAL SYSTEMS TECHNOLOGY

Electrical Systems Technology teaches students the integral components of the electrical industry for entry level employment in residential, commercial, and/or light industrial locations. The basis of instruction is in the layout, assembly, installation, wiring, maintenance, and trouble-shooting of electrical systems. Understanding programmable logistical controls (PLC's) and how transformers operate are also covered. Adherence to the National Electric Code is emphasized throughout this course as well as trade safety procedures. This program may lead to additional career pathways such as an Electrical Drafter, Electrical Technicians, Electrical Engineers, Electrical Power-Line Installers and Repairers, Meter Readers/Utilities, Control and Valve Installers/Repairs, and Locomotive Engineers, to just name a few. Additionally, students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card and may have a greater opportunity to join the International Brotherhood of Electrical Workers' Union after graduation.

HEATING, VENTILATION, AIR-CONDITIONING AND REFRIGERATION

Heating, Ventilation, Air-Conditioning, and Refrigeration, which has been newly renovated with state-of-the-industry equipment, provides instruction in basic and advanced electrical theory, troubleshooting and repair of residential and commercial heating, air conditioning, and refrigeration systems. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card.

MASONRY

Masonry offers instruction in the construction of brick and block walls for residential or commercial structures. Students learn techniques of ornamental masonry, ceramic tile, and natural or cultured stone installations. New to the program, students will also be introduced to versa-lok, an interlocking dry wall system. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card and may have a greater opportunity to join the Bricklayers' Union (BAC) after graduation.

COSMETOLOGY

Cosmetology prepares students to perform technical services including all aspects of hair, skin/nail beautification, and personal maintenance. These skills are supported and reinforced with theoretical background including sanitation, chemistry, anatomy and physiology, as well as structure, function, and disorders of the hair, skin, nails, and scalp. This program helps students develop into well-rounded professionals, who practice real-world services in Parkway's salon, which is open to the public two days a week. Utilizing an integrated approach to teaching and learning, students learn about interpersonal relations, professional attitude, and career fundamentals along with technical knowledge and skills. Techniques and abilities are practiced and tested on mannequins, classmates, and the general public. Students who are able to attend this program for three years will have the opportunity to earn 1,250 hours of state-regulated course requirements to take the state licensing exam to be a licensed cosmetologist, which encompasses providing services to the public for hair, skin, and nails. Students who are able to take one or two years of instruction in this program, may choose from the following specialized licensed fields: **Nail Technician License:** This license requires 200 hours of instruction and can be completed within one semester. An individual holding a nail technician license is qualified to perform nail technology services only. **Cosmetology Teacher License:** Prerequisite for this course is having successfully passed at least one of the above licensures. This license requires 500 hours of required studies and can be complete within one year. An individual holding a teacher's license is qualified to perform the functions of a teacher in whichever specialized area the individual has obtained licensure.

CULINARY ARTS

The Culinary Arts program provides practical instruction in the preparation of banquet, buffet, and a la carte styles of food preparation. Practical experience is provided through the operation and management of an in-house, full-service restaurant and beyond the restaurant environment to provide goods and services for Parkway's food store, where pastries and select meats are sold. Students learn to design cakes, sculpt ice, and prepare many different types of cuisine. First-year students spend one school year in Culinary Arts Level I. Second and third-year students will advance into Culinary Arts Levels II and III. Senior students who have completed at least two years of Culinary Arts will have the opportunity to earn both the National Restaurant Association's ServSafe certification and the American Culinary Federation certification.

DIGITAL MULTIMEDIA

The Digital Multimedia Technology program provides instruction in basic graphic design using computers and design software such as Adobe Illustrator, Acrobat, Photoshop, InDesign, and Dreamweaver. Students learn entry-level skills for desktop publishing, web design, digital photography, and graphic animation utilizing Flash. Several software applications are used to design, edit, and publish documents, images, and multimedia presentations in print and electronic form. From designing a poster to developing a website, students will have the opportunity to apply their creativity to projects that resemble those in the real world. Students can earn the Adobe Certified Associate certification in Visual Communication and the Adobe Certified Associate in Web Communication certification via Certiport.

HEALTH ASSISTANT

The Health Assistant program is a dynamic, well-rounded view of several health occupations for students to explore. Students in this program have the opportunity to participate in a wide-range of real-world clinical and job shadowing experiences at many different local healthcare providers such as hospitals and other medically related facilities. Clinical experiences may include: child care, long-term care, emergency nursing, recovery room nursing, radiology, medical records, operating room observation, pharmacy, physical/occupational therapy, and/or lab technician. Students will have the opportunity to earn and complete the American Heart Association “CPR for Health Care Providers” certification and the following certifications in relation to the Health Care industry:

Pennsylvania State Nurse Aid Registry (CNA): For first and second year students, instruction begins with anatomy, physiology, and medical terminology. Special attention is given to medical office examinations, treatment, and patient care.

Personal Care Home Direct Care Staff – For first and second year students, this component offers a competency test from the PA Department of Public Welfare and it prepares students to work in a personal care home as a direct care giver.

Phlebotomy Technician Certification (CPT): For one semester, senior students only, module and lab work includes: anatomy and physiology, infection control, safety and compliance, patient preparation, collection techniques, and processing of collected sample(s). Students must demonstrate a minimum of 30 successful venipunctures and 10 successful capillary punctures.

Pharmacy Technician Certification (CPhT): After successful completion of this one-year course, students will assist the pharmacist in a variety of tasks. Module and lab work includes: controlled substances, laws and regulations, drug classifications, frequently prescribed medications, prescription information, preparing/dispensing prescriptions, calculations, and sterile products, unit dose, and repackaging.

INFORMATION TECHNOLOGY ESSENTIALS

The Information Technology program prepares students who are interested in networking and computer diagnostics. It begins with Cisco IT Essentials, PC hardware and software, and network operating systems. Students initially prepare for CompTIA A+ and CompTIA Server+ certifications and then, through the Cisco CCNA Discovery course, students learn networking concepts based on typical networks that one might encounter in a home or small office, or in larger, more complex enterprise models. Finally, students can prepare for the Cisco CCENT and Cisco CCNA certifications.

PUBLIC SAFETY TECHNOLOGY

The Public Safety Technology program focuses on careers relating to emergency medical services, firefighting, law enforcement, and emergency management services. In order to successfully complete the program, students must meet minimum proficiency levels in all public safety areas. Instruction is provided in disaster situations/management, hazardous materials handling, pre-hospital medical care, map reading, firefighting, the judicial system, and emergency dispatching. Students have the opportunity to earn the following certifications: Emergency Medical Technician- Basic (EMT-B), Basic Vehicle Rescue (BVR), Emergency Vehicle Operators Course (EVOC), Hazardous Materials Recognition and Identification (Haz-Mat R&I), and multiple Federal Emergency Management Agency certifications.

VETERINARY TECHNOLOGY

Veterinary Technology or “Vet Tech” students will learn to keep medical records, schedule, offer client education, practice laboratory procedures, assist with nursing duties, prepare for surgeries, and assist during a routine exam. Students will also gain a solid educational base on which to build a post-secondary degree. This program may lead to additional career pathways such as Animal Trainer, Animal Breeders, Non-Farm Animal Caretakers, Laboratory Animal Caretakers, Groomers, Animal Control Worker, Veterinary Technician, Veterinary Technologist, and Veterinarian. Upon accreditation, students may earn the Purina Certified Weight Coach, Pharmacy Technician, and Veterinary Assistant certifications.

WELDING TECHNOLOGY

The Welding Technology program covers several types of welding processes by which metal may be bent, cut, or welded together, including oxy-fuel, shielded metal arc, gas metal arc, gas tungsten arc, flux core welding, carbon arc, plasma cutting, and oxy-fuel brazing. Students will learn the importance of industry safety, measuring instruments, hand tools, grinders, metallurgy, blueprint reading, electrical principles, layout/design, and fabrication, as well as how to prepare materials lists for cost estimates. Students have the opportunity to earn the American Welding Society (AWS) certification.

Course and Credit Planning Guide

The Course and Credit Planning Guide is a sample of the credit sheet the guidance office uses and maintains for graduation purposes. The guide should be used by a student to adequately plan their four years at Quaker Valley High School. Total credits for each course are noted with course descriptions in the Program of Studies.

	Minimum Required Credits	Grade				Totals
		9	10	11	12	
English & Composition (4 years)	5.0					
Social Studies (4 years)	4.0					
Science & Technology (3 years)	4.5					
Mathematics (3 years)	4.5					
Health I (9, 10) Health II (11, 12)	1.0					
Hon. Personal Project (Grade 10)	1.0					
Physical Education	2.0					
<i>Elective Art</i>	9.0					
<i>Elective Computer/Media</i>						
<i>Elective English</i>						
<i>Elective Family & Consumer Science</i>						
<i>Elective World Language</i>						
<i>Elective Math</i>						
<i>Elective Music</i>						
<i>Elective Social Studies</i>						
<i>Elective Pre-Engineering&Tech</i>						
Elective Career Tech. Center						
Totals	31.0					

Revised 6/2012

QUAKER VALLEY SCHOOL DISTRICT

Exhibit C – DEMOGRAPHIC STUDY



Demographic School Analysis: Population Projections for the Quaker Valley School District

Prepared by **Stewman Demographics**

See the September 15, 2015 Demographic Study

*QVSD.org/District/Blueprint QV: New High School Project/Research
and Studies/Demographic School Analysis - Population Projections for
the Quaker Valley School District*

Demographic School Analysis:
Population Projections for the
Quaker Valley School District

See the September 15, 2015 Demographic Study

*QVSD.org/District/Blueprint QV: New High School Project/Research
and Studies/Demographic School Analysis - Population Projections for
the Quaker Valley School District*

QUAKER VALLEY SCHOOL DISTRICT

Exhibit D – Facility Assessments



High School Food Service Assessment

McFarland Kistler & Assoc., Inc., Ken Kistler, FCSI, February 3, 2015

High School HVAC Assessment

Eckles Architecture & Engineering, J. Christopher Miller, PE, November 21, 2014

High School Plumbing and Fire Protection Assessment

Eckles Architecture & Engineering, J. Christopher Miller, PE, November 21, 2014

High School Electrical Assessment

Eckles Architecture & Engineering, Timothy Brown, November 21, 2014

Energy Star Portfolio Manager Surveys – Existing Buildings

Eckles Architecture & Engineering, J. Christopher Miller, PE, March 4, 2015

McFarland Kistler & Associates, Inc.

Food & Laundry Facilities Consultants

~ Celebrating 60 Years ~

Pines Plaza
1130 Perry Highway - Suite 115
Pittsburgh, PA 15237

February 3, 2015

Eckles Architecture, Inc.
301 North Mercer Street
New Castle, PA 16101

Attention: Ms. Cassandra Renninger, RA, Project Manager

Reference: Quaker Valley School District
High School Food Service Assessment - Preliminary Information

Dear Cassi:

The food service operation has been self-supporting throughout the recent past [REDACTED]. A breakfast program and lunch program are offered to all students (and faculty) throughout the District. Reimbursable breakfast participation is [REDACTED] similar to most school districts; however, ala carte purchases are generally good. Reimbursable lunch participation hovers [REDACTED] however, approximately [REDACTED] make some type of purchase on a daily basis. Free and/or reduced qualifying students are relatively [REDACTED]. The operation also caters to a number of outside parties, as well as accommodates the vast majority of the catering needs within the District [REDACTED]. Outside parties presently include:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

The expansion of these programs or the addition of new clients is a distinct possibility.

General comments pertaining to the existing installation/equipment is as follows:

- [REDACTED] to kitchen areas — specifically the “grandfathering” of existing installations. Typically a building renovation of 50%, or greater, will require the kitchen area equipment meet present day code standards. In addition, modifications to the kitchen area, regardless of the degree of change, may also result in the requirement to comply with present day code standards. Unfortunately, this is strictly up to the interpretation of the specific code reviewer. In this kitchen, the potential code issues involve the following:
 - Non air-gapped drains extending from the food preparation sinks and dishwasher.
 - Inadequate overhangs of the exhaust ventilators (hoods) encompassing the cooking equipment.
 - Presence of corrosion on various equipment items.
 - Inadequate number of handwashing sinks.
 - Inadequate illumination levels in various areas of the kitchens.
 - Presence of clothes dryer within the main kitchen area.
 - Inadequate illumination levels within the walk-in refrigerators and freezers.

General Information Regarding the High School Kitchen:

- Accommodates production for approximately 630 students in Grades 9 through 12.
- Catering demands, specifically District-related, will likely increase at this facility due to the relocation of the District Administration offices.
- Students are served via three (3) lunch periods at thirty (30) minutes each.
- Was originally designed as a “satellite” kitchen, supported by the Middle School kitchen, but now utilized as a stand alone full-service kitchen, receiving all deliveries and handling all production requirements.
- Encompasses approximately 1,640 square feet of “contained” kitchen area, plus approximately 350 square feet of the cafeteria area at the kitchen side and another 400 square feet of the cafeteria area at the opposite side of the cafeteria (alternate serving line).
- Very minimal renovation in 1997 involving the addition of a walk-in freezer, conversion of a stair tower to a small Dry Storage Room, purchase of two (2) refrigerators, and purchase of a few serving counters.
- Vast majority of the equipment, excluding the previously noted items from the 1997 renovation, are outdated, inefficient, and beyond their expected useful life.
- Dry Storage space is severely undersized.

- Walk-In Refrigerator is slightly undersized, but dangerous due to the integral “step” between the kitchen floor and walk-in floor.
- Walk-In Freezer is undersized.
- Preparation Area is inadequate and under-equipped, lacking a slicer, utility carts, small mixer, etc.....
- Custom fabricated work tables and sinks may be reusable, with refurbishment necessary, specifically the galvanized components.
- Cooking equipment is lacking, specifically oven space.
- The size and capacity of the back-up hot food holding cabinets is severely limited.
- The remote serving areas cannot be properly secured and are also tremendously inefficient from a labor perspective.
- Dishwashing area is undersized and pot-washing area is inefficiently positioned.

Possible Options for Consideration:

- Enlarge kitchen and serving area by extending approximately 18'-0" - 22'-0" into the cafeteria. This is in essence only about 8'-0" further than the existing serving counters presently envelop; however, we may be able to eliminate the remote serving line at the opposite end of the cafeteria, returning about 400 square feet of area to the cafeteria for seating.
- Increase freezer and dry storage space.
- Incorporate additional preparation space and new preparation equipment.
- Update the cooking equipment to include combi-ovens (boilerless), kettles, trunnion kettles, and large microwave oven, thereby expediting production, reducing energy usage, and improving quality.
- Replace the ventilator (hood) with a new properly-sized and designed system, reducing energy consumption and corresponding expenses on a daily basis.
- Replace and slightly enlarge the existing refrigerator, also eliminating the dangerous step, complete with an energy-efficient refrigeration system.
- Consider the addition of a second walk-in freezer to provide adequate frozen storage capacity.
- Replace necessary equipment with new Energy Star rated equipment, where possible.

- Develop three (3) or four (4) integral serving lines, complete with adequate back-up holding equipment adjacent to the kitchen area, thereby efficiently utilizing labor and providing the students with multiple food selections.
- Consider incorporating a small food court style servery, common in approximately 80% of the new/renovated High School facilities throughout the country. This style servery stimulates sales, but must be equipped with security cameras to control theft. This design also requires additional space, as the students can visit multiple counters within an enclosed area prior to exiting at the cashier's location.
- Design the serving area and kitchen to be fully securable, regardless of specific type of operation.

I hope this is helpful. Let me know if you have any questions or require additional input or information.

Sincerely yours,

Kenneth M. Kistler, FCSI
CEO / President

McFARLAND KISTLER & ASSOCIATES, INC.
1130 Perry Highway - Suite 115
Pittsburgh, PA 15237



Quaker Valley School District HIGH SCHOOL HVAC ASSESSMENT

November 21, 2014 (Updated from Tower Engineering's assessment report dated 2/9/10)

General Comments and Recommendations

- 1) Overall System Type - Classrooms: [REDACTED]
- 2) Overall System Type – [REDACTED]
- 3) Construction and Renovation History: The latest renovation occurred in 1997 and while most of the HVAC equipment was replaced in the 1997 renovation, some older hot water piping still exists throughout the building.
- 4) Comparison to Current Standards:
 - a) The [REDACTED] ventilators are similar to the equipment installed in numerous primary/secondary schools with the exception that modern classroom systems are designed with increased ventilation air capabilities and usually have an integral cooling coil.
 - b) Modern HVAC design for K-12 facilities has moved away from [REDACTED] design towards vertical unit ventilator, water-source heat pump, Variable Air Volume, and fan-coil designs. These systems have numerous advantages including indoor air quality, acoustics, maintenance requirements and energy efficiency.
 - c) Improvements to the building HVAC systems that bring the building systems up to or exceed current energy efficiency standards should be considered to decrease the overall energy usage.
- 5) General HVAC observations and recommendations:
 - a) The overall design concept for the HVAC replacement in 1996 was very fragmented, with multiple stand-alone HVAC systems. These systems were, for the most part were either H&V unit ventilators for perimeter classrooms, or air handling units set on the roof with penthouses built around them. This approach seemed to have absolute low first cost as its driving force.
 - b) Any significant building upgrade should include some way to provide space by space mechanical cooling.
 - c) In some spaces, floor to structure clearances are limited. These spaces could well determine the type of HVAC system that could be installed, if one takes a comprehensive approach to the system.
 - d) If the facility is to remain in use while it is renovated, the two systems—the existing and the new—would have to be kept in operation. Areas would be transferred from old to new system as they are upgraded or renovated. This approach further complicates the space limitation issue raised above
 - e) The roof mounted air handlers were actually indoor units, set on curbs or rails, then enclosed in penthouse construction. When mechanical cooling was needed, an air cooled

condensing unit was set on the roof and piped to a [REDACTED] unit. This equipment requires a significant maintenance presence on the roof.

Central Heating Plant

- 1) Existing System:
 - a) Plant Type: Plant Age: [REDACTED]
 - b) Fuel: [REDACTED]
 - c) Boiler: [REDACTED]
 - d) Pump Configuration: [REDACTED]
 - e) Supply water temperature control [REDACTED].
- 2) Code Violations and Safety Concerns:
 - a) The boiler room does not comply with the 2009 edition of the International Mechanical Code with respect to boiler room combustion air requirements.
- 3) Comments and Recommendations:
 - a) The combustion air intakes do not have motorized dampers
 - b) If the boilers are retained, install in-line dedicated recirculation pumps to eliminate potential for thermal shock and condensation
 - c) Consider replacement of existing [REDACTED] boilers with new condensing boilers
 - d) Consider replacement of existing hot water pumps with new pumps with the capability of lead/lag operation
 - e) Consider installation of variable speed drives on the hot water pumps for energy efficiency

Central Cooling Plant None.

Control System

- 1) Existing Control System:
 - a) Pneumatic control via control air compressor located in the boiler room
 - b) Several renovated systems have been converted to DDC
- 2) Comments and Recommendations:
 - a) Upgrade entire building to direct digital control system

Classrooms

- 1) Existing System:
 - a) System Type: [REDACTED]. The majority of the unit ventilators are heating only and there are various unit ventilators throughout the building that are furnished with heating and DX cooling. Relief air from the classrooms is via [REDACTED].
 - b) Age: 1997
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
 - e) Ventilation Source: [REDACTED]
- 2) Comments and Recommendations:

- a) Existing unit ventilators have [REDACTED] to minimize potential for freeze failures.
- b) It is unlikely that the existing system meets current ventilation codes (10 cfm per student+0.12 CFM/sq. ft.) in each classroom).
- c) There is evidence that humidity levels are very high at times making ceiling tiles sag in numerous classrooms.
- d) Consider installing newer vertical unit ventilators with, hot water heat and (possibly) heat recovery to increase energy efficiency.

Office & Health Suite

- 1) Existing System:
 - a) System Type: [REDACTED]
 - b) Age: 1997
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
- 2) Comments and Recommendations:
 - a) The Office & Health Suite is served via [REDACTED]
 - b) Individual rooms have [REDACTED]
 - c) The thermostat for the air handling system is located [REDACTED]
 - d) Consider converting the existing [REDACTED] to a zoned system for better temperature control
 - e) A second option would be to use a heat recovery style Variable Refrigerant Flow system with a dedicated 100% OA unit on the roof. This is a more expensive system, but it is also more efficient and uses less ceiling space.

Tech Ed

- 1) Space was remodeled recently to accommodate a more limited array of hand tools
 - a) Space currently served by a [REDACTED]
 - b) A small dust collector sit outside the space

Basement CAD/technology area adjacent to Tech ed

- 1) Existing System:
 - a) System Type: [REDACTED]
 - b) Age: 1997
 - c) Cooling Source [REDACTED]
 - d) Heating Source: [REDACTED]
- 2) Comments and Recommendations:
 - a) The inlet control vanes on the air handling unit are 100% open, indicating that the unit is at its maximum capacity
 - b) The ductwork insulation is pulling away from the ductwork indicating that the vapor barrier on the ductwork has been breached. Moisture form condensation on the ductwork has permeated the insulation making it ineffective. All of the insulation should be replaced

- c) Heating at the unit is controlled via [REDACTED]
- d) Verify actual airflow requirements and upgrade air flow capacities as required
- e) Consider installation of a variable speed drive for the supply fan.
- f) Augment this system, where necessary with ductless minisplit systems.

Library

- 1) Existing System:
 - a) System Type: [REDACTED]
 - b) Age: 1997
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
- 2) Comments and Recommendations:
 - a) The ductwork insulation is pulling away from the ductwork indicating that the vapor barrier on the ductwork has been breached. Moisture from condensation on the ductwork has permeated the insulation making it ineffective. All of the insulation should be replaced
 - b) Heating at the unit is controlled via [REDACTED]

Cafeteria and Kitchen

- 1) Existing System:
 - a) Kitchen System Type: [REDACTED]
 - b) Age: 1997
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
 - e) There appears to be some sort of make-up air system ducted through the northwest wall of the kitchen. There was no perceived air motion at the duct outlets. We assume that this system is non-functional with respect to providing make-up air to the kitchen.
 - f) A large exhaust hood exists over several cooking appliances. No such hood is shown on the HVAC drawings, nor is the exhaust fan connected to it.
 - g) The [REDACTED], with 50% of that air being outside air for exhaust hood make-up. [REDACTED]
- 2) Code Issues: no direct ventilation is provided. Make-up air quantity is questionable.
- 3) Comments and Recommendations:
 - a) Install a dedicated makeup air unit to provide direct mechanical ventilation to the kitchen
 - b) The majority of the heating hot water supply and return piping is not insulated. Insulate all uninsulated heating hot water supply and return piping
 - c) Based upon observations, it appears that insufficient makeup air exists within the Cafeteria to compensate for hood exhaust. Installation of a dedicated makeup air unit would improve this situation.
 - d) Transfer air into the kitchen is through a transfer grille from the egress corridor outside the kitchen.

- e) There are two utility exhaust fans on the roof with exposed ductwork that are showing signs of rust. Replace existing exhaust fans and exposed ductwork

Boys and Girls Locker Rooms

- 1) Existing System:
 - a) System Type: [REDACTED]
 - b) Age: 1997
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
- 2) Code Issues: none noted
- 3) Comments and Recommendations:
 - a) none

Guidance Suite

- 1) Existing System:
 - a) System Type: [REDACTED]
 - b) Age: 1997
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
- 2) Code Issues: none noted
- 3) Comments and Recommendations:
 - a) Consider adding cooling capability

Band/Chorus Rooms

- 1) Existing System:
 - a) System Type: [REDACTED]
 - b) Age: Recently modified
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
- 2) Code Issues: The condensing unit is within 10'-0" of the roof parapet
- 3) Comments and Recommendations:
 - a) This system was recently replaced with the exception to the fan section which remained
 - b) A new hot water coil, evaporator coil and air cooled condenser section was installed
 - c) The supply fan discharge has a bypass that diverts air from the supply ductwork to the return ductwork. This was installed as a means to divert air to the return duct when the system is at lower loads
 - d) Relocate condensing unit or install hand rail at parapet

Corridors

- 1) Description of Existing System:
 - a) System Type: none
 - b) Age: NA

- c) Cooling Source: none
- d) Heating Source: none
- 2) Code Issues: Ventilation required per 2009 International Mechanical Code - .06 cfm/sq.ft.
- 3) Comments and Recommendations:
 - a) Provide ventilation air via a dedicated heating and ventilation unit. This could be tied into a new heating and ventilation that would serve the classrooms.

Weight Room – Basement

- 1) Existing System:
 - a) System Type: [REDACTED]
 - b) Age: 1997
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
- 2) Code Issues: none
- 3) Comments and Recommendations:
 - a) Consider adding cooling capability

Gymnasium

- 1) Existing System:
 - a) System Type: [REDACTED] (from original building construction)
 - b) Age: Unknown
 - c) Cooling Source: [REDACTED]
 - d) Heating Source: [REDACTED]
 - e) The units seemed relatively quiet.
- 2) Code Issues: none
- 3) Comments and Recommendations:
 - a) Replace existing units with new packaged rooftop units with cooling capability.

Quaker Valley School District HIGH SCHOOL PLUMBING ASSESSMENT

November 21, 2014 (Updated from Tower Engineering's assessment report dated 2/9/10)

General Comments and Recommendations

- 1) An initial discussion was held with QV personnel to get an overview of the concerns for the plumbing systems.
 - a) The building is to be functional for another 20 years of service life.
 - b) High efficiency sinks and toilets: It is desired to replace the water closets, sinks and urinals with fixtures that use less water. Auto-sensor flush valves can be used for the urinal. Manual flush valves will be used for the water closets. Sloan is the preferred manufacturer for flush valves. Crane is not preferred. The district has a preference to use Chicago Faucets. The model will be provided to the AE team.
 - c) Science labs: The science lab areas need to be reviewed to determine if they are code compliant.
- 2) Overall Recommendation: Replace the plumbing fixtures with lower flow models. Replace existing equipment to meet the requirement of an additional 20 years of service. Additional recommendations follow.

Water Supply

- 1) Existing System:
 - a) [REDACTED] installed in 1997, it enters the building [REDACTED].
 - b) Present configuration includes [REDACTED]
 - c) Pressure gage reading [REDACTED]
 - d) There is [REDACTED]
- 2) Code Violations and Safety Concerns:
 - a) None identified at this time.
- 3) Comments and Recommendations:
 - a) See Fire Protection Section

Sanitary Sewer

- 1) Existing System:
 - a) Sanitary lines exit the building from [REDACTED] and discharge to a manhole.
- 2) Code Violations and Safety Concerns:
 - a) None identified at this time.
- 3) Comments and Recommendations:

- a) Have the underground sanitary lines video scoped to determine the condition of these lines.
- b) There is some history of sewer clogging associated with the southern sanitary sewer
- c) A good bit of the northern end of the building sanitary piping was redirected away from a [REDACTED] sewage ejector in 1997. As such it appears that perhaps the [REDACTED] itself may be the remaining contributor to this pump.
- d) Replace aboveground sanitary piping that was not replaced in the most recent renovation of 1997.

Storm Sewer

- 1) Existing System:
 - a) Storm lines exit from [REDACTED].
 - b) Some storm lines within the building were replaced in 1997.
- 2) Code Violations and Safety Concerns:
 - a) Secondary roof drains or scuppers are required by IPC section 1107 should the roof construction allow the entrapment of water if the primary drains allow buildup.
- 3) Comments and Recommendations:
 - a) Have the underground storm lines video scoped to determine the condition of these lines.
 - b) Determine adequacy of overflow scuppers to provide secondary roof drainage.

Natural Gas Service

- 1) Existing System:
 - a) The gas service comes from [REDACTED].
- 2) Code Violations and Safety Concerns:
 - a) There is no main shutoff valve for the gas service.
- 3) Comments and Recommendations:
 - a) Install an exterior shutoff valve on the gas service supply main, just outside the building.

Interior Water Distribution

- 1) Existing System:
 - a) In 1997, a majority of the cold water, hot water and hot water recirculation system and the gas piping to the labs was replaced.
- 2) Code Violations and Safety Concerns:
 - a) None identified at this time.
- 3) Comments and Recommendations:
 - a) Replace plumbing systems that were not replaced in 1997.
 - b) Replace gate valves with ball valves, where possible
 - c) Replace/repair piping that is leaking.
 - d) Replace missing or damaged insulation on plumbing lines.

Plumbing Fixtures

- 1) Existing System:
 - a) Some plumbing fixtures were replaced in 1988 and others were replaced in 1997. There is a mix of wall mounted and floor mounted water closets with manual flush valves. Water

closet water consumption is 1.6 GPF. Urinal water consumption is 1 GPF, with manual and sensor flush valves. Lavatories had manual faucets.

- b) Electric water coolers were installed in 1997.
 - c) Most of the service sinks are wall mounted. A few have been replaced with floor mounted mop sinks.
 - d) Tempered and cold water is provided for the showers.
- 2) Code Violations and Safety Concerns:
- a) Current IPC requires tempered (85 to 110 deg F) water for public hand washing.
- 3) Comments and Recommendations:
- a) Replace the water closets and urinals with low flow fixtures (1.28 GPF and 0.5 GPF respectively).
 - b) Install sensor operated (battery powered) flush valves on the urinals.
 - c) Install manual or battery operated flush valves on the water closets
 - d) Install new faucets on the lavatories. The lavatories are in reasonable condition, but could be replaced if the other fixtures are being replaced.
 - e) Replace service sinks with mop sinks where possible. Replace faucets at service/mop sinks.
 - f) Replace electric water coolers
 - g) Replace shower heads and shower faucets.
 - h) Replace tempering valves to showers.
 - i) Install tempering valve to provide tempered water in the building's existing hot water distribution system. Install separate hot water line to kitchen area.
 - j) Install code required tempering valves at public accessed lavatories.

Domestic Water Heaters

- 1) Existing System:
- a) There are two [REDACTED]. [REDACTED]. The tank was installed in 1997. There was no indication of problems, from school personnel, with the volume or temperature of the hot water system.
- 2) Code Violations and Safety Concerns:
- a) None identified at this time.
- 3) Comments and Recommendations:
- a) Replace the water heaters (same capacity) with higher energy efficient units, comparable to the building boilers replacement. Replace the circulating pumps.

Kitchen/Cafeteria

- 1) Existing System:
- a) The kitchen does not presently have a grease interceptor.
- 2) Code Violations and Safety Concerns:
- a) A grease interceptor is required per IPC section 1003.3.1 for school kitchens.
- 3) Comments and Recommendations:
- a) Replace floor drain grates with stainless steel grates.
 - b) Replace hand wash sink with stainless steel.

- c) Replace the dishwasher booster heater.
- d) Install a minimum 1,000 gallon grease interceptor (minimum size per Allegheny County Plumbing Code)

Science Labs

- 1) Existing System:
 - a) During the 1997 renovation gas turrets, sinks, water, gas and drain piping was installed.
 - b) At the instructor's station there are [REDACTED]
- 2) Code Violations and Safety Concerns:
 - a) Tepid water is required for emergency eyewash and safety shower.
- 3) Comments and Recommendations:
 - a) It is assumed that tepid water is not provided to the emergency eye washes. Consider replacement of emergency stations

Miscellaneous Plumbing

- 1) Existing System:
 - a) Acid waste neutralization tank for science labs located [REDACTED]. It was replaced in 2009.
 - b) In the art and silk screen rooms there are [REDACTED] that are problematic.
 - c) Home economics room has [REDACTED].
- 2) Code Violations and Safety Concerns:
 - a) None identified at this time.
- 3) Comments and Recommendations:
 - a) Provide new solids interceptors.
 - b) Darkroom sink needs the faucet replaced.
 - c) In the Home economics room reroute the lines on the inside of the wall in a chase.

Fire Protection

1) Existing System:

- a) Presently there is [REDACTED]. This [REDACTED].
- b) [REDACTED].
- c) The sprinklers and fire hose connections are [REDACTED]. On the day of the site visit 2/01/2010, the water pressure gage reading for the building was 58 PSI. There are [REDACTED].

2) Code Violations and Safety Concerns:

- a) [REDACTED]
- b) [REDACTED]
- c) [REDACTED]
- d) [REDACTED]
- e) [REDACTED]
- f) [REDACTED]

3) Comments and Recommendations:

- a) Consideration should be given to providing sprinkler protection to the entire building.
- b) Separate the fire protection supply piping from the domestic water system, so the required pressures can be obtained at the fire hoses.
- c) A hydrant flow test should be conducted. It must be determined if the municipal system has the flow/pressure capabilities to serve a completely protected building. A fire pump may be required.

Quaker Valley School District
HIGH SCHOOL ELECTRICAL ASSESSMENT

November 21, 2014

Electrical Service and Central Facilities

- 1) The facility is served by [REDACTED].
- 2) Panels appear to be in the mid-term of their useful life, but there appears to be no remaining space in the electrical gear for future expansion. At some time in the past, a capacitor bank has been installed to correct the power factor for the building. [REDACTED]

Wiring and Distribution

- 1) The electrical gear is manufactured [REDACTED]. The electrical gear appears to be in good condition. Over the years the addition of branch circuits to serve computers and electronic devices has depleted any spare space in the local electrical panels.

Lighting

- 1) Most of the fluorescent lighting uses more efficient T8 lamps though there are still a few mechanical and storage spaces in the building utilizing older T12 lamps. The classrooms and corridors utilize 2' X 4' lensed troffers. The boiler room uses incandescent lamps. The gymnasium uses 400 watt metal halide lamps.
- 2) The building lacks the current energy code required automatic lighting control. A lighting renovation should include occupancy sensors in classrooms and public spaces to control the lighting and timer switches in storage areas. The metal halide gymnasium lighting should be replaced with high efficiency high bay fluorescent to take advantage of energy savings, improve lighting levels, and achieve better control.

Emergency Power

- 1) The facility has a [REDACTED] generator and transfer switch. The unit is reported to be operations and in good condition. The unit serves only emergency lighting. Exit signs in the facility are self-luminous type.
- 2) The generator does not have the capacity to carry data room air-conditioning units, compressors for the kitchen cooler and freezer, and HVAC heating pumps. This additional equipment is commonly powered on the generator in newer facilities to prevent loss of kitchen stock, freezing of hydronic systems, and protection of critical data systems in the event of a prolonged power outage.

Communications Systems

- 1) Pa:
 - a. The paging system is manufactured by [REDACTED]. The system includes classroom call in buttons. This system is nearing the end of its life expectancy and replacement should be considered.
- 2) Telephone:
 - a. The telephone system in the building is manufactured by [REDACTED] and appears to be the system installed in the 1998 renovations. Telephone handsets are present in each classroom. The system is reported functional but nearing the end of its life expectancy. Newer Voice over IP systems should be considered.
- 3) Local sound Reinforcement Systems:
 - a. The cafeteria, gymnasium, and auditorium have local sound reinforcement systems. The district reports these system are functional and does not report any issues with the systems.
- 4) Data:
 - a. Data cabling throughout the facility is CAT-5e and has recently exceeded its 15 year warranty period. The main data room is located in the ground floor and connects to satellite data closest with fiber optic cable. The building appears to be well populated with data outlets. The cabling system should be tested to see if it can accommodate the ever increasing speeds demanded by current and future technologies.
- 5) TV:
 - a. The building utilizes an older style coaxial distribution system to distribute television content to the classrooms. This system is operational and the head-end is located in the main data room on the ground floor. As the data system is upgraded the coaxial TV distribution should be migrated to the data network where content will be streamed to the classroom devices allowing access to a greater range of content and allowing more flexibility. System such as V-Brick should be considered to stream, record, store, and manage content.
- 6) Fire Alarm:
 - a. The fire alarm panel is manufactured by [REDACTED]. The main panel [REDACTED] the district's fire alarm systems. [REDACTED] New addressable systems are currently in use and allow greater flexibility and accuracy in pinpointing exact fire event locations and conditions. The remote fire alarm panel [REDACTED]. [REDACTED]. Fire events can no longer be acknowledged or silenced from the remote panel. Maintenance staff must go to the main panel [REDACTED] to utilize these functions. There are some elevator lobbies that [REDACTED]
[REDACTED]

Security

- 1) [REDACTED].

Date: March 4, 2015

RE: **Summary and Explanatory Comments on Energy Star Portfolio Manager Results**
For the 2015 District Wide Study
Quaker Valley School District.

Prepared By: J. Christopher Miller, PE, Dir. of Engineering

In 2010 the PA Dept. of Education revised their requirements of a 'District Wide Study Facility Study' to include energy benchmarking utilizing the Department of Energy's (DOE) 'Energy Star Portfolio Manager Survey Tool'. It is not our intent to explain all the details for this federally sponsored existing buildings analysis tool, other than to say that its intent is to establish an energy consumption index number for each building. The Pennsylvania Department of Education expects Boards to consider energy efficiency among the multitude of factors that bear on the District's construction program.

Information required to establish this index number is summarized on the attached blank form. We asked Quaker Valley School District to fill in the requested information and provide copies of 12 consecutive months of utility bills. The District provided the data, and we entered it into the DOE's website 'Portfolio Manager' along with a number of other data points which are then compared to the DOE's statistical prototype school. This comparison yields a numerical index that supposedly indicates how efficiently the building has operated over the billing year.

The numbers we generated for three of the four QVSD schools were much lower than we expected them to be. Copies of the Energy Star Statements of Building Performance output summaries are attached to this document. The outputs were as follows:

- Quaker Valley High School 50

We attribute the poor numerical performance to several factors. First, the full description of the statistical model may not be fully adjusted to allow for the local climatic conditions. It's very doubtful that the model school is occupied and utilized as much as the QVSD buildings are. There is one building model for a "K-12" building, so the distinction between the age and interests of the various groups and ages of students is not considered. [REDACTED]

[REDACTED] QVSD fosters community involvement and encourages afterhours use of its

facilities—this is another factor that can skew the results. The renovated buildings are simply more attractive—people enjoy using them.

These buildings did not undergo a process called Commissioning—we currently recommend commissioning to all our clients to be sure that building systems are operating optimally to correspond with the design intent. At this time, the middle school and the two elementary schools may be good candidates for “retro-commissioning”. This would be one way to find, and hopefully fix, areas of inefficiency and improper operation. [REDACTED]

[REDACTED]

The one result that was close to our expectations was the High School. Although it has the highest index, it compares very well with other high schools that are in need of significant renovations.

We can provide much more information on both the “input” and “output” used for the comparison-for any interested parties.

Benchmarking Summary Sheet

ECKLES ARCHITECTURE AND ENGINEERING

Information for Energy Star Benchmarking

Date: Page:

District:	Quaker Valley School District		
Admin. Building Address:	100 Leetsdale Industrial Drive, Suite B Leetsdale, PA 15056		
Admin. Contact Person:	Dr. Joseph Marrone		
Phone #:	<input type="text" value="412-749-3600"/>	Email address:	<input type="text" value="marronej@qvsd.com"/>

Building Name:	Quaker Valley High School		
Building Address:	625 Beaver Street Leetsdale, PA 15056		
Year Built:	<input type="text" value="1926"/>	District AUN:	<input type="text" value="103027753"/>
Gross floor area (square feet):	<input type="text" value="126,563"/>	Gymnasium floor area:	<input type="text" value="7750"/>

Building Contact Person (if applicable):	Deborah Ricobelli		
Phone #:	<input type="text" value="412-749-6020"/>	Email address:	<input type="text" value="ricobellid@qvsd.org"/>

Information relative to the building:

Number of PC's (no not include laptop's):	<input type="text" value="409 *"/>	Note: Items marked * are unconfirmed, but have no discernable impact on outcome.	
Number of walk-in coolers and/or freezers:	<input type="text" value="2"/>		
Is the building open weekends (yes or no):	<input type="text" value="YES*"/>		
Is there food preparation (cooking) on site (yes or no):	<input type="text" value="Y"/>		
Approximate percentage of the building that has AC (to the nearest 10%):	<input type="text" value="40%"/>		
Approximate percentage of the building that is heated (to the nearest 10%):	<input type="text" value="100%"/>		
Months used (circle letter):	<input type="text" value="J F M A M J J A S N D *"/>		
Number of Students:	<input type="text" value="614"/>	Is there a pool in the building (yes or no):	<input type="text" value="N/A"/>
Number of Staff:	<input type="text" value="88*"/>	Area of pool:	<input type="text" value="N/A"/>
		Pool months of use:	<input type="text" value="N/A"/>

IMPORTANT:

Please provide copies of 12 consecutive months of utility bills for all fuels consumed within this building
Bills must show overall dollar amount as well as the number and type of energy units consumed.
Bills must be marked individually to identify and confirm the building in which the energy is used.
All bills for a particular building must be for the **same 12 month period** .
 Include water bills for the same period.

Please forward this information to Eckles Architecture and Engineering to the attention of the Project Architect

NOTE: This sheet should be filled out for each building subject to "Study".

Statements of Energy Performance



ENERGY STAR[®] Statement of Energy Performance

50

ENERGY STAR[®]
Score¹

Quaker Valley HS AUN 103027753

Primary Property Function: K-12 School
Gross Floor Area (ft²): 126,563
Built: 1926

For Year Ending: December 31, 2014
Date Generated: March 03, 2015

1. The ENERGY STAR score is a 1-100 assessment of a building's energy efficiency as compared with similar buildings nationwide, adjusting for climate and business activity.

Property & Contact Information

Property Address

Quaker Valley HS AUN 103027753
625 Beaver Street
Leetsdale, Pennsylvania 15056

Property Owner

Quaker Valley School District
100 Leetsdale Industrial Drive
Suite B
Leetsdale, PA 15056
() -

Primary Contact

Joseph Marrone
100 Leetsdale Industrial Drive
Suite B
Leetsdale, PA 15056
412-749-3600
marronej@qvsd.com

Property ID: 4345523

Energy Consumption and Energy Use Intensity (EUI)

Site EUI

86.1 kBtu/ft²

Annual Energy by Fuel

Natural Gas (kBtu) 7,195,338 (66%)
Electric - Grid (kBtu) 3,703,695 (34%)

National Median Comparison

National Median Site EUI (kBtu/ft²) 86.7
National Median Source EUI (kBtu/ft²) 152.6
% Diff from National Median Source EUI -1%

Source EUI

151.6 kBtu/ft²

Annual Emissions

Greenhouse Gas Emissions (Metric Tons CO₂e/year) 1,126

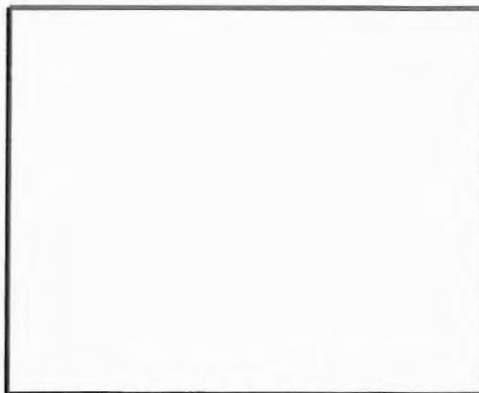
Signature & Stamp of Verifying Professional

I _____ (Name) verify that the above information is true and correct to the best of my knowledge.

Signature: _____ Date: _____

Licensed Professional

J. Christopher Miller
222 North Beaver Street
New Castle, PA 16101
724-652-5507
jcm@ecklesgroup.com



Professional Engineer Stamp
(if applicable)

QUAKER VALLEY SCHOOL DISTRICT

Exhibit E – Educational Programming



QUAKER VALLEY HIGH SCHOOL

2014 Educational Programming

07/28/14

Prepared by Eckles Architecture

In the summer of 2014, Eckles Architecture met with representatives from the District & High School Administration to envision what a 'High School of the Future' would look like at Quaker Valley. The following educational program is a reflection of those discussions and should serve as a basis for future high school planning. It is understood that the following programming reflects the districts academic vision.

Many thanks to Superintendent Dr. Heidi Ondek, Assistant Superintendent & former High School Principal Mr. Andrew Surloff, and Dir. of Administrative Services Dr. Joe Marrone for their time and vision in developing this program.

*** Quaker Valley School District has further refined the 2014 Educational Program provided by Eckles Architecture. See the Facilities Committee Presentation May 12, 2020.*

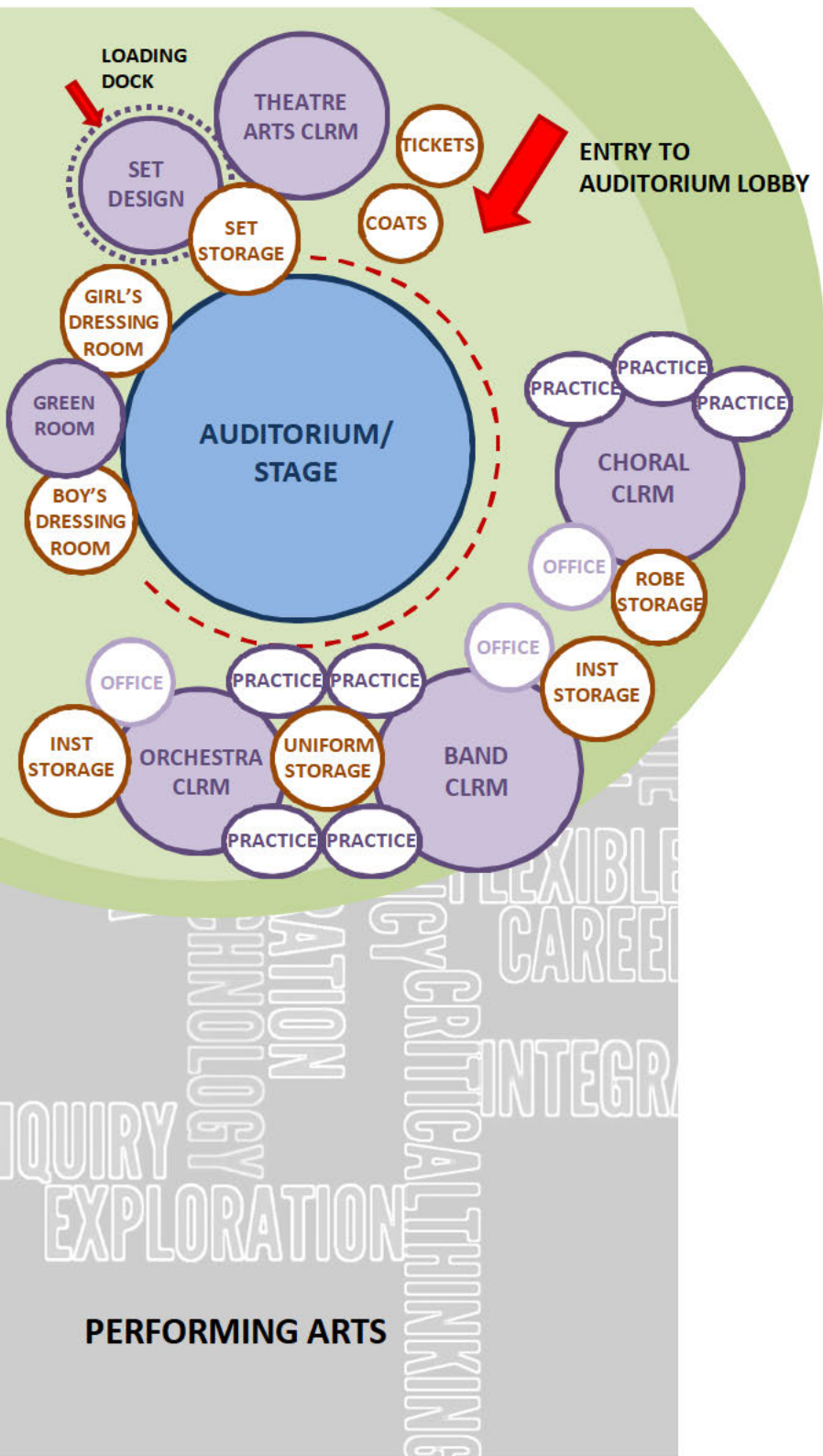
QUAKER VALLEY HIGH SCHOOL



LEARNING
ACADEMICS
COLLEGIATE
INNOVATION
ENGAGEMENT
TRANSPARENCY
CRITICAL THINKING
COMMONS
REAL-WORLD
INTERACTION
PROJECT-BASED
LABORATORIES
STUDIOS
PIAZZA
ACTIVE
COMMUNITY
FLEXIBLE
CAREER
INTEGRATED
COLLABORATION
TECHNOLOGY
EXPLORATION

QUAKER VALLEY HIGH SCHOOL

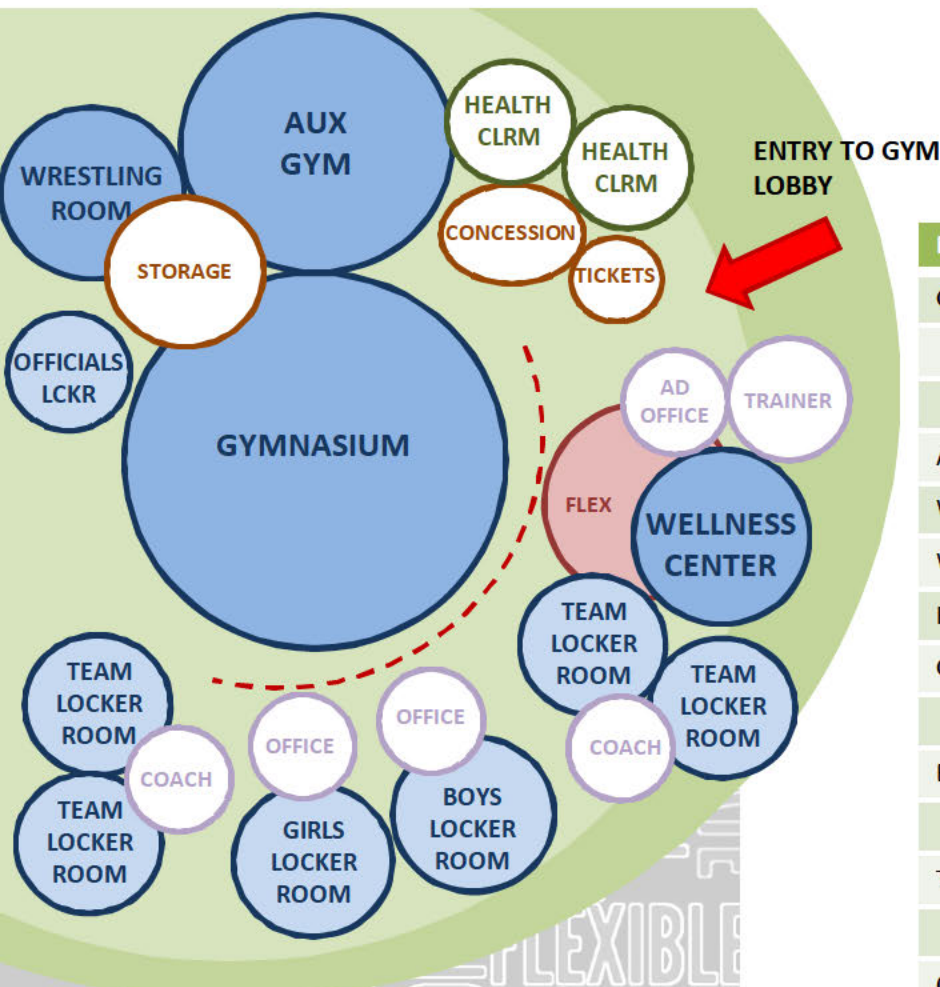
2014 Feasibility Study – EDUCATIONAL PROGRAM



DESCRIPTION	TARGET AREA	NOTES
Auditorium	11,000 sf	1200 Seats
Stage	3,300 sf	
Green Room	250 sf	
Control Room	150 sf	
Boy's Dressing Room	250 sf	
Girl's Dressing Room	250 sf	
Band Classroom	2,200 sf	Separate risers & classroom areas
Office	150 sf	
Orchestra Classroom	1,400 sf	
Office	150 sf	
Choral Classroom	1,400 sf	Separate risers & classroom areas
Office	150 sf	
Practice Room	350 sf	
Practice Room (x 2)	250 sf	Equip for recording
Practice Room (x 4)	60 sf	
Theatre Arts / Black Box Theater	3,200 sf	Same size as performance area on stage, wood floor, use as black box theater
Set Design (possibly use tech-ed shop)	900 sf	Proximity to loading dock
Storage	2,800 sf	Sets, costumes, instruments (band & orchestra), uniforms, robes, music library, etc.
SUBTOTAL PROGRAM AREA	28,640 sf	

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM



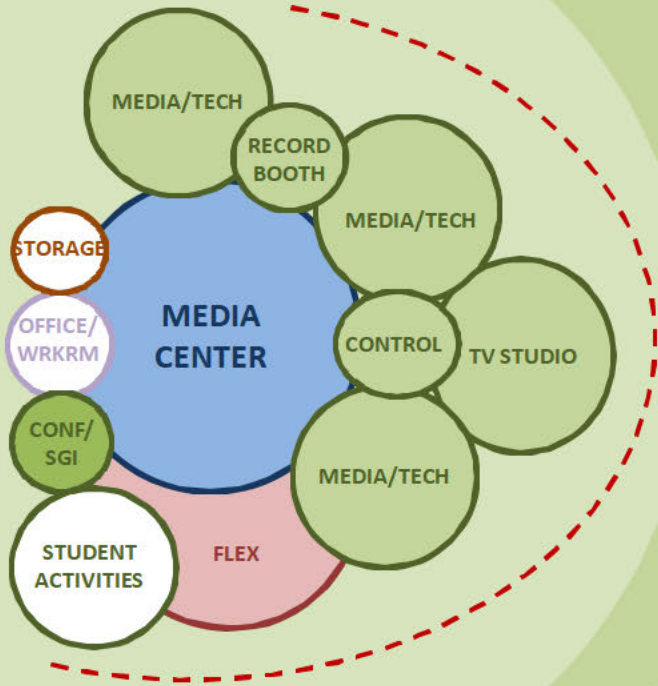
DESCRIPTION	TARGET AREA	NOTES
Gymnasium	12,000 sf	1200 seats
Concession	250 sf	
Ticket Booth	80 sf	
Auxiliary Gymnasium	7,500 sf	200 seats
Wellness Center (Aux. Gym)	2,600 sf	Fitness Equipment
Wrestling Room (Aux. Gym)	2,600 sf	
Health Classroom (x 2)	800 sf	Folding wall between rooms
Girls Locker Room	1,500 sf	
PE Office	200 sf	
Boys Locker Room	1,500 sf	
PE Office	200 sf	
Team Locker Room (x 4)	1,000 sf	
Coach's Office (x4)	200 sf	
Official's Locker Room (x 2)	125 sf	
Athletic Director	600 sf	
Trainer	600 sf	
Storage	800 sf	PE storage, Athletic Storage, etc.
<i>Flex Space (student lounge)</i>		Pool table, foosball, lounge seating, TV's, video games
SUBTOTAL PROGRAM AREA	37,080 sf	

PHYS-ED/WELLNESS

INQUIRY
EXPLORATION
TECHNOLOGY
ACTION
CRITICAL THINKING
CAREER
INTEGRATION

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

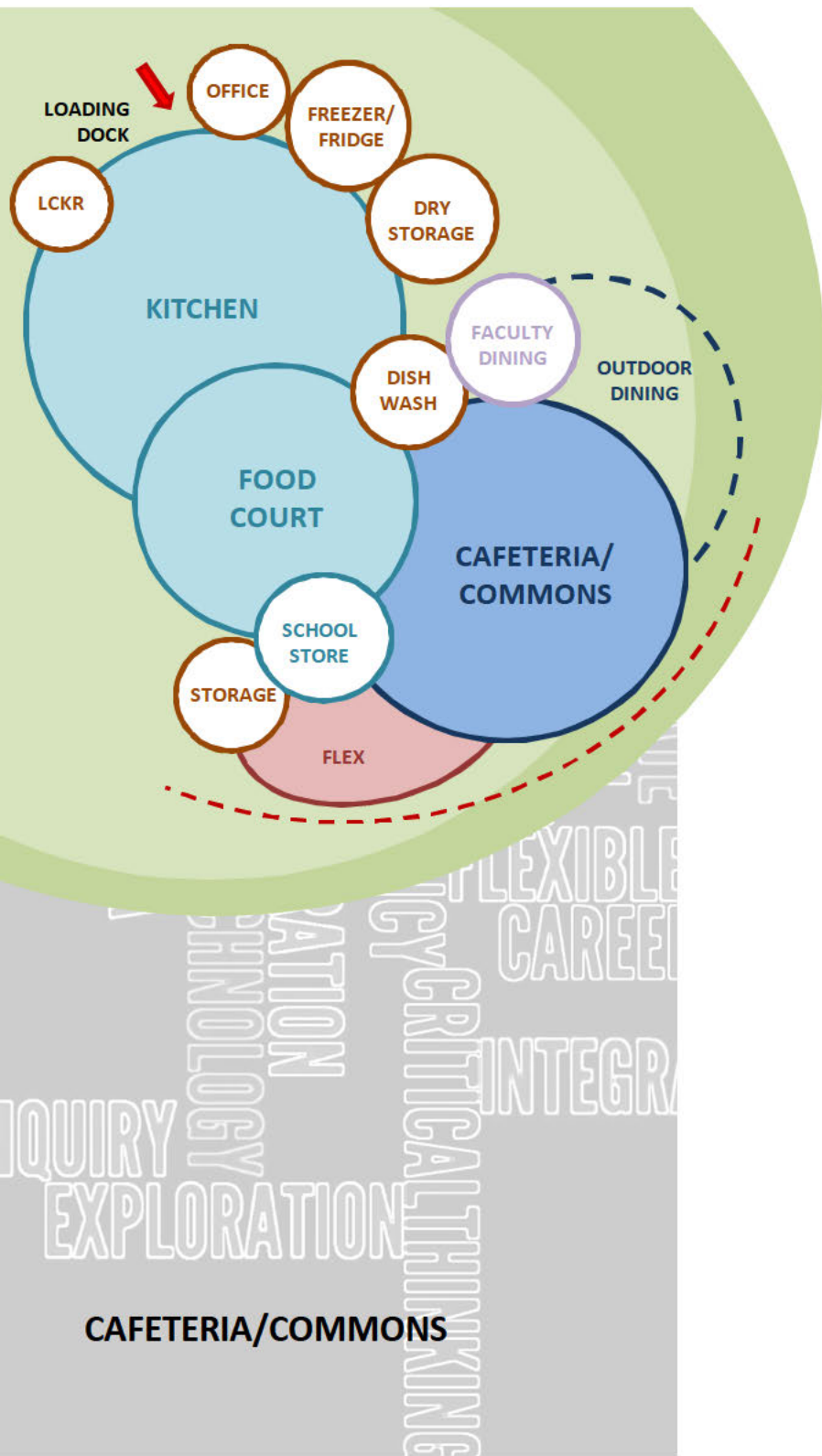


MEDIA/TECHNOLOGY CENTER

DESCRIPTION	TARGET AREA	NOTES
Media Center / Knowledge Commons	4,000 sf	
Office/Work Room	350 sf	
Storage	150 sf	
Conference/Small Group	350 sf	
Media/Technology Classroom	1,200 sf	
Media/Technology Classroom	1,200 sf	Computer programming
Media/Technology Classroom	1,200 sf	Digital Art
TV Studio	800 sf	
Control Room	450 sf	
Recording Booth	200 sf	
Student Activities	800 sf	
<i>Flex Space (knowledge bar)</i>		Café, casual seating, TV's, 'Kiva'
SUBTOTAL PROGRAM AREA	10,700 sf	

QUAKER VALLEY HIGH SCHOOL

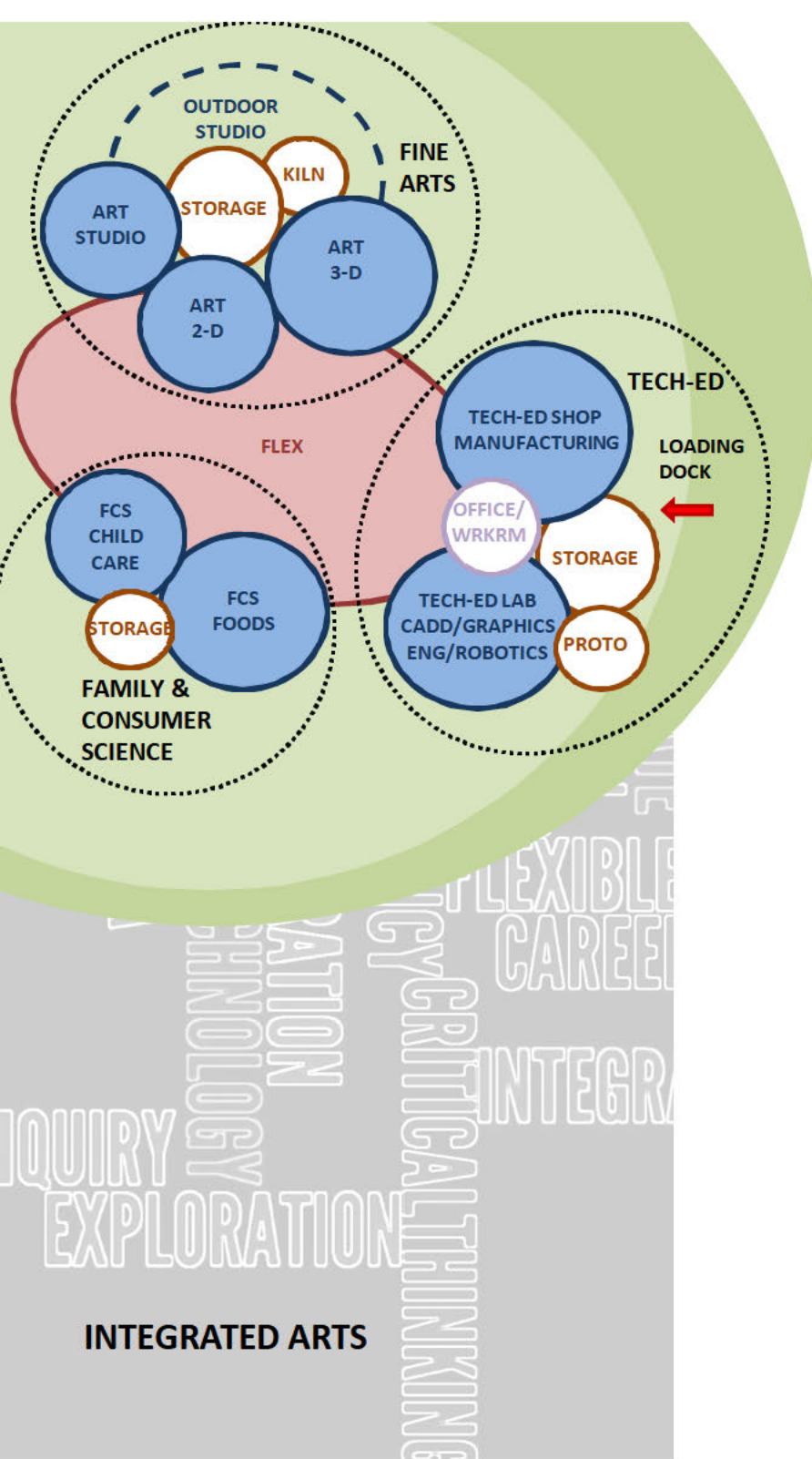
2014 Feasibility Study – EDUCATIONAL PROGRAM



DESCRIPTION	TARGET AREA	NOTES
Cafeteria/Commons	4,800 sf	Open onto secure outdoor seating
Kitchen/Food Court (incl'd's support)	3,800 sf	Include vegetable garden area on-site
School Store (incl'd's storage)	600 sf	
Faculty Dining	700 sf	
<i>Flex Space</i>		Snack Bar, Vending, Casual Seating, TV's
SUBTOTAL PROGRAM AREA	9,900 sf	

QUAKER VALLEY HIGH SCHOOL

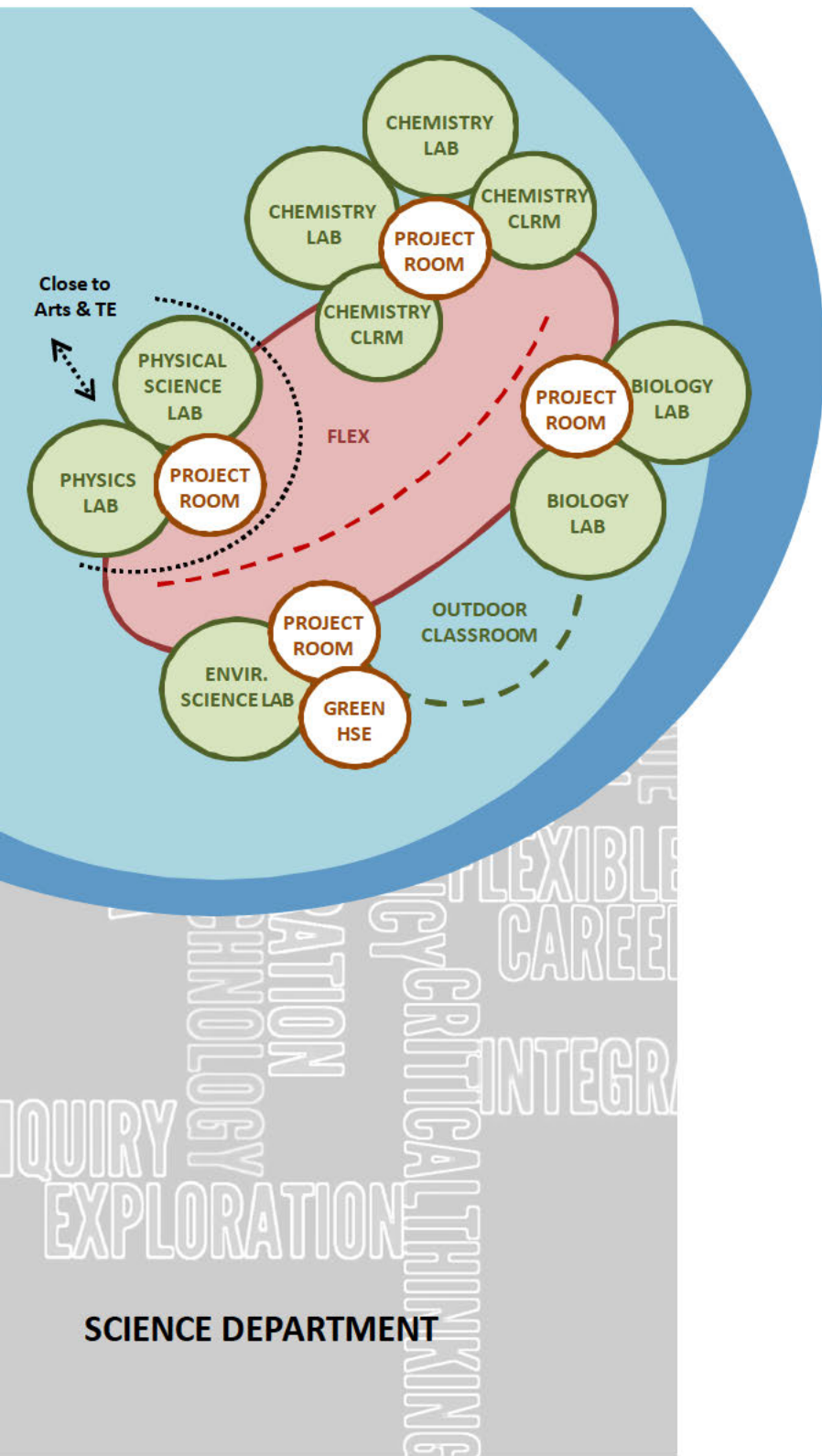
2014 Feasibility Study – EDUCATIONAL PROGRAM



DESCRIPTION	TARGET AREA	NOTES
Fine Arts		
Art – 3D Classroom	1,200 sf	Connected to outdoor space
Kiln Room	150 sf	
Art – 2D Classroom	1,200 sf	Connected to outdoor space
Spray Booth	80 sf	
Art – Studio	1,200 sf	Flexible project room; open to public after hours; access to various support spaces
Storage	600 sf	Distributed between rooms or shared
Tech-Ed		
TE SHOP – Manufacturing	2,200 sf	Access to Loading Dock
Spray Booth	100 sf	
TE LAB – CADD/Graphics & Engineering/ Robotics	1,800 sf	
Prototype Room	250 sf	
Office	200 sf	Connected to TE clrms w/ windows
Storage Room	600 sf	Distributed between rooms or shared
Family & Consumer Science		
FCS – Foods Classroom	1,200 sf	
FCS – Child Care Classroom	900 sf	Separate entry to exterior, kitchenette, kiddie toilet
Storage/Laundry	250 sf	
Flex Space		Gallery/Display, Critique, Casual Seating
SUBTOTAL PROGRAM AREA	11,930 sf	

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

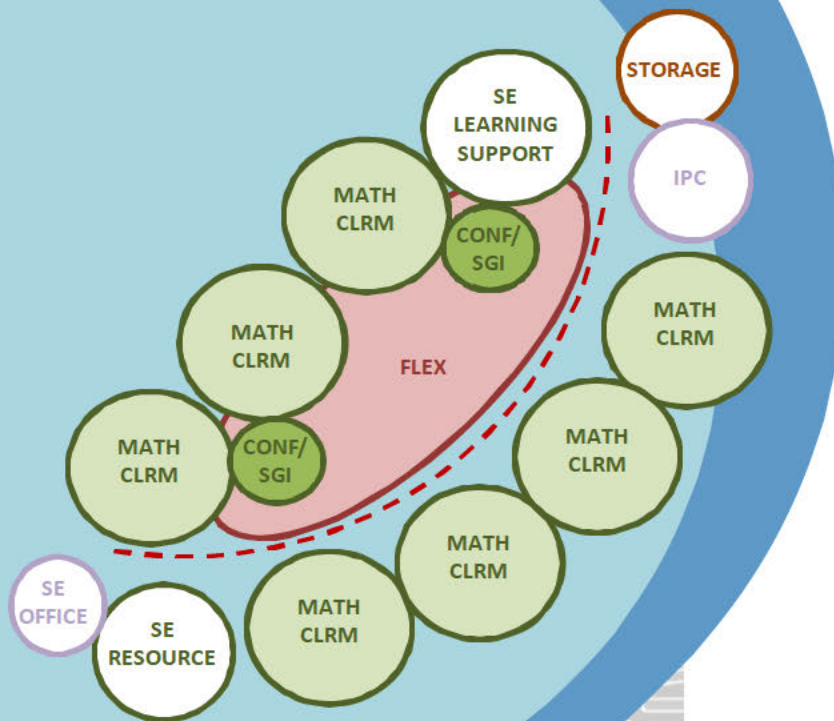


DESCRIPTION	TARGET AREA	NOTES
Chemistry Lab & Classroom	1,800 sf	
Project Room	300 sf	
Chemistry Lab & Classroom	1,800 sf	
Biology Lab	1,600 sf	
Project Room	300 sf	
Biology Lab	1,600 sf	
Environmental Science Lab	1,800 sf	Environmental building features as teaching tool; greywater, rain barrels; daylight harvesting, etc.
Project Room	300 sf	
Greenhouse	400 sf	Evening/weekend access
Physics Lab	1,600 sf	Close to Arts & Tech-Ed
Project Room	300 sf	
Physical Science Lab	1,600 sf	Close to Arts & Tech-Ed
Flex Space		Casual and activity seating, 'Kiva', open to outdoor classroom/roof garden
SUBTOTAL PROGRAM AREA	13,400 sf	

SCIENCE DEPARTMENT

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

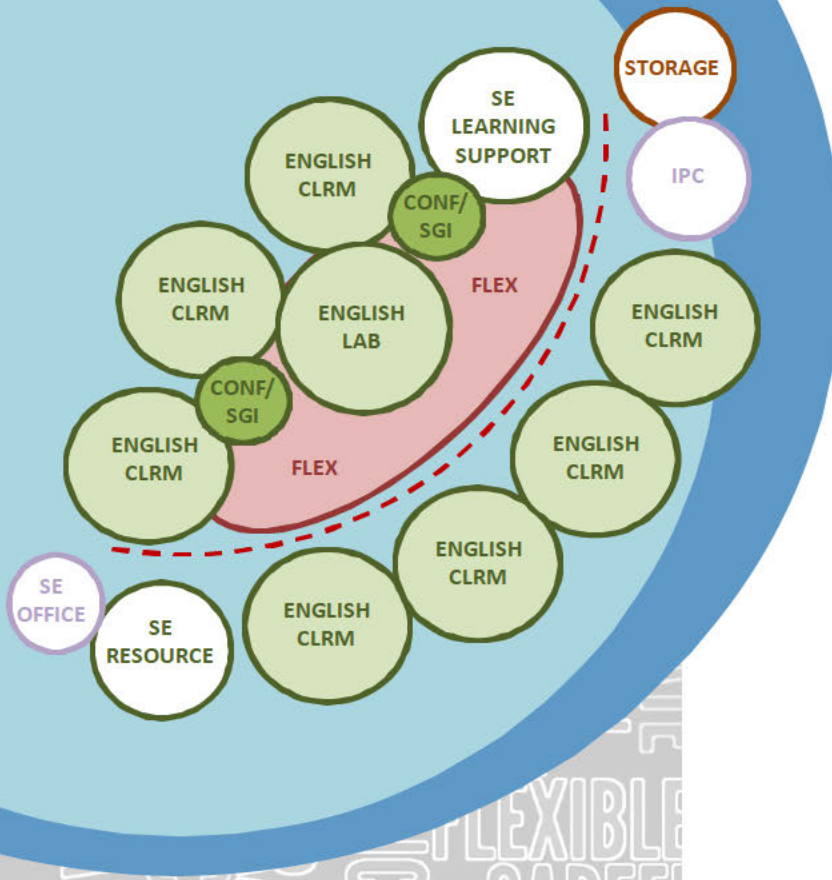


DESCRIPTION	TARGET AREA	NOTES
Math Classroom (x 7)	800 sf	
SE – Resource Room	400 sf	Incorporate sensory space
SE – Office	150 sf	
Instructional Planning Center	700 sf	Teacher workstations – keep desks and files out of classrooms
Instructional Material Storage	250 sf	Keep casework out of classrooms
Conference/Small Group (X2)	250 sf	Corridor Alcove/Niche
<i>Flex Space</i>		Casual seating, 'Kiva', independent study, collaborative learning, TV's
SUBTOTAL PROGRAM AREA	7,600 sf	

MATH DEPARTMENT

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

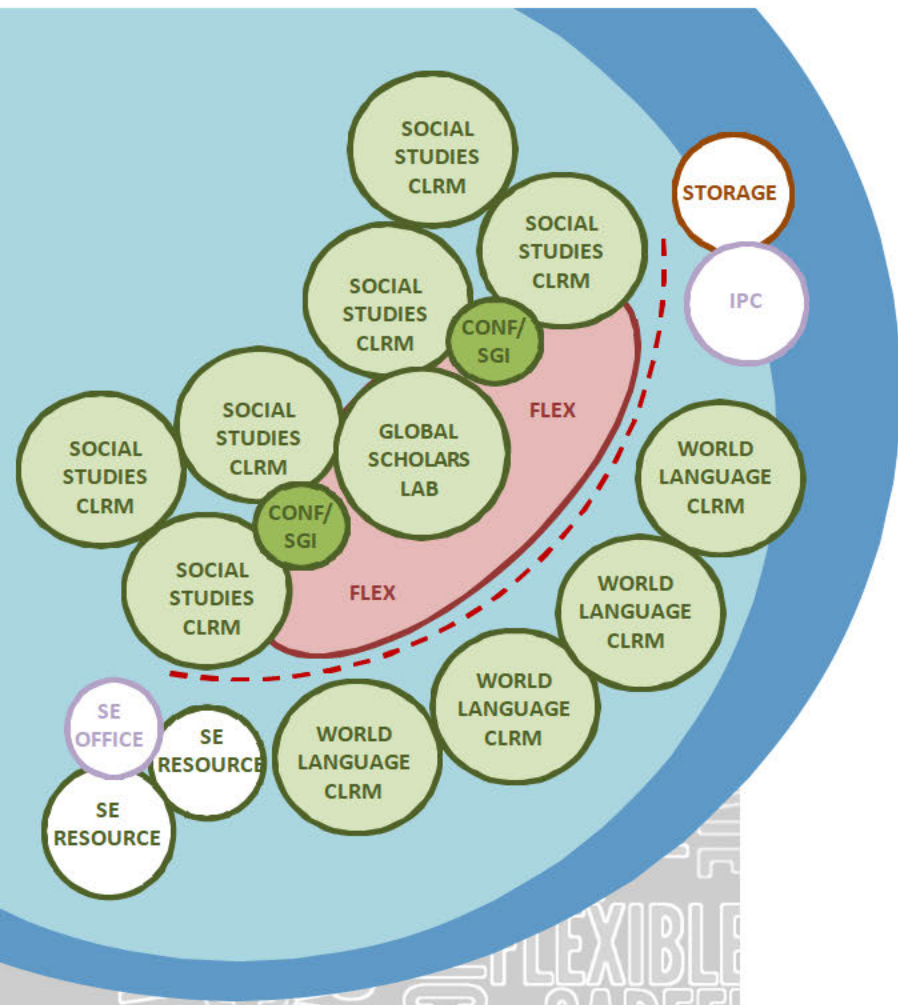


DESCRIPTION	TARGET AREA	NOTES
English Classroom (x 7)	800 sf	
English/Writing Lab	1000 sf	
SE – Resource Room	400 sf	Incorporate sensory space
SE – Office	150 sf	
Instructional Planning Center	700 sf	Teacher workstations – keep desks and files out of classrooms
Storage	250 sf	Keep casework out of classrooms
Conference/Small Group (x 2)	250 sf	Corridor Alcove/Niche
Flex Space		Casual seating, 'kiva', independent study, collaborative learning, 'stage', TV's
SUBTOTAL PROGRAM AREA	8,600 sf	

**ENGLISH/COMMUNICATIONS
DEPARTMENT**

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

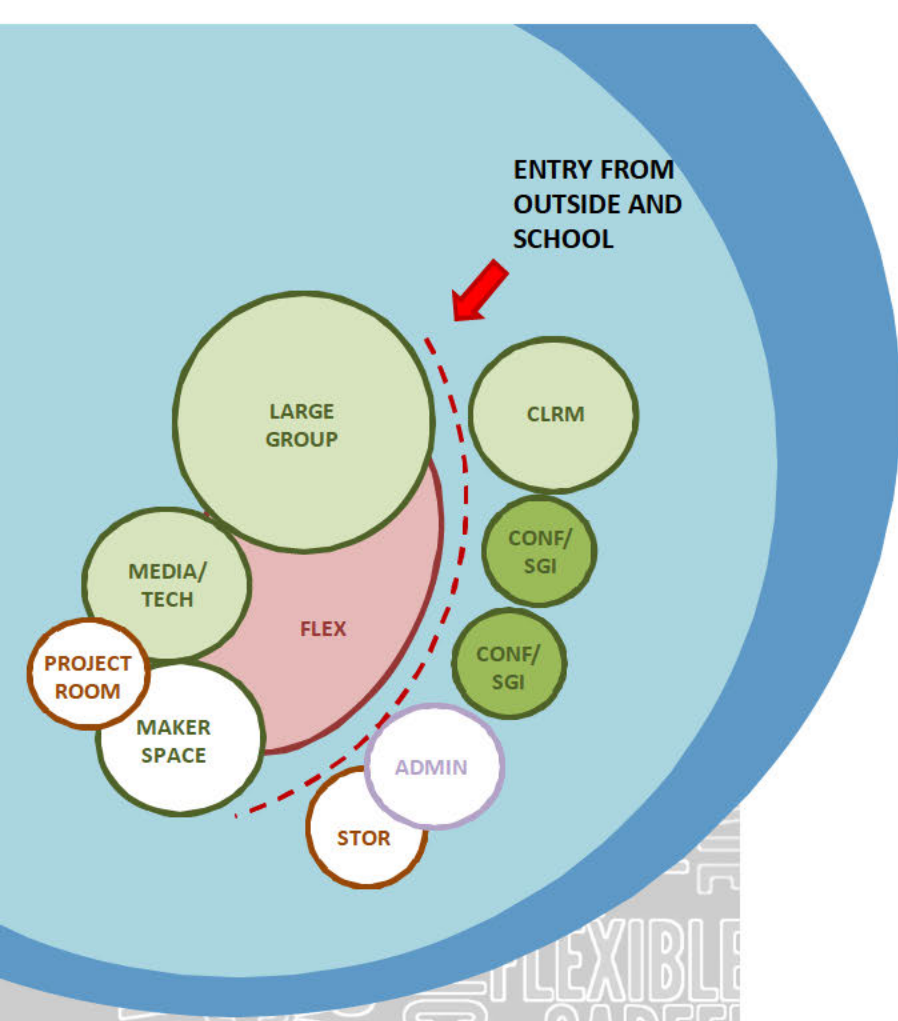


DESCRIPTION	TARGET AREA	NOTES
Social Studies Classroom (x 6)	800 sf	
World Language Classroom (x 4)	800 sf	
Global Scholars Lab	1000 sf	Service Learning: community service, solving world problems
SE – Resource Room	400 sf	Incorporate sensory space
SE – Resource Room (ESL)	250 sf	
SE - Office	200 sf	
Instructional Planning Center	700 sf	Teacher workstations – keep desks and files out of classrooms
Storage	250 sf	Keep casework out of classrooms
Conference/Small Group (x 2)	250 sf	Corridor Alcove/Niche
Flex Space		Casual seating, 'Kiva', independent study, collaborative learning, world clocks, TV's, maps
SUBTOTAL PROGRAM AREA	11,300 sf	

WORLD SCHOLARS DEPARTMENT

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM



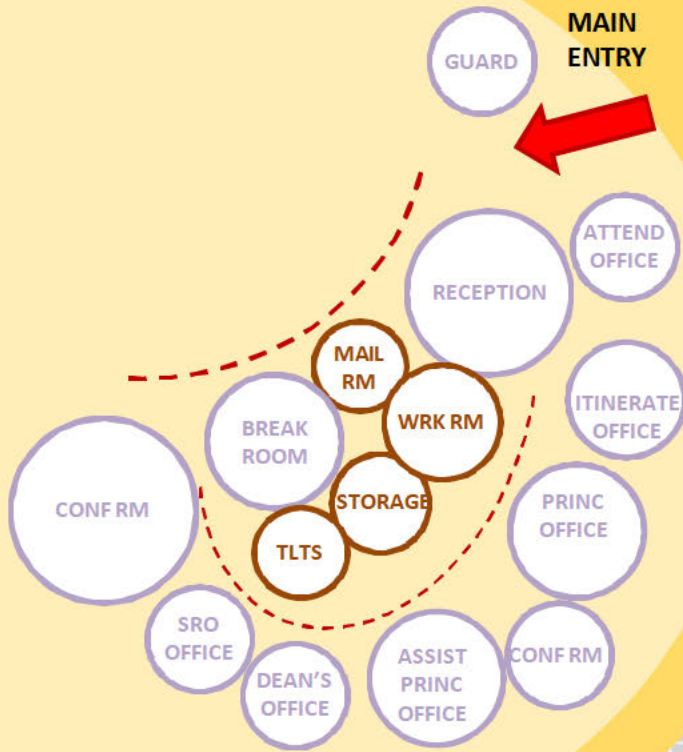
DESCRIPTION	TARGET AREA	NOTES
Large Group Instruction	2,400 sf	
Media/Technology Classroom	1,000 sf	
Maker Space	1,000 sf	Sinks, basic Tech Equipment, lab tables
Project Room	200 sf	
General Classroom	800 sf	
Conference/Small Group (x2)	250 sf	
Administration	400 sf	Workstations for business professionals and/or college instructors
Storage	150 sf	
<i>Flex Space</i>		Casual seating, 'Kiva', independent study, collaborative learning, TV's
SUBTOTAL PROGRAM AREA	6,450 sf	

INNOVATION
TECHNOLOGY
CRITICAL THINKING
INTEGRATION
CAREER
INQUIRY
EXPLORATION

**ACADEMIC WING CONCEPT
INNOVATION/EXPLORATION CENTER**

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

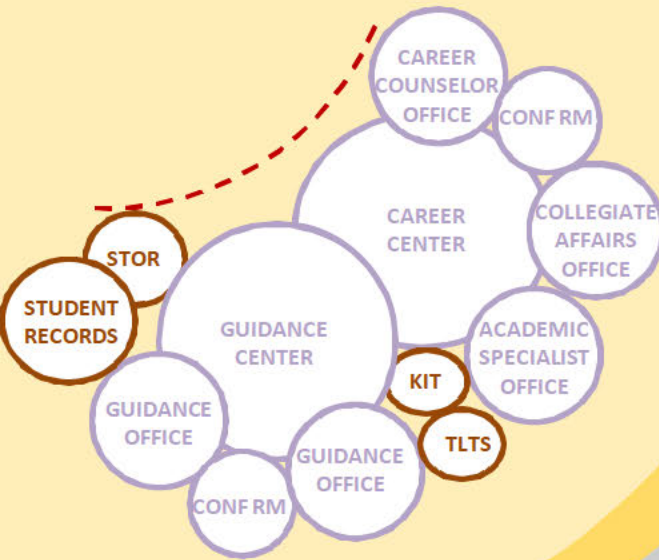


DESCRIPTION	TARGET AREA	NOTES
Administration Suite		Located at Main Entry
Security/Guard Station	150 sf	
Waiting/Reception	600 sf	Enter from secure vestibule – ballistic glass
Attendance Office	150 sf	Located where students enter
Workroom/Mailroom	400 sf	Workroom w/ pass thru mailboxes to Mailroom
Storage	200 sf	
Break Room	250 sf	
Itinerate Office	150 sf	
SRO Office	150 sf	
Dean of Student's Office	150 sf	
Assistant Principal's Office	200 sf	
Small Conference Room	200 sf	Shared between principal's offices
Principal Office	250 sf	
Large Conference Room	450 sf	
Toilets	160 SF	Men's & Women's Toilets
SUBTOTAL PROGRAM AREA	3,460 sf	
Net to Gross Conversion Factor (1.35)	1,210 sf	
ADMINISTRATION TOTAL	4,670 sf	

ADMINISTRATION SUITE

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

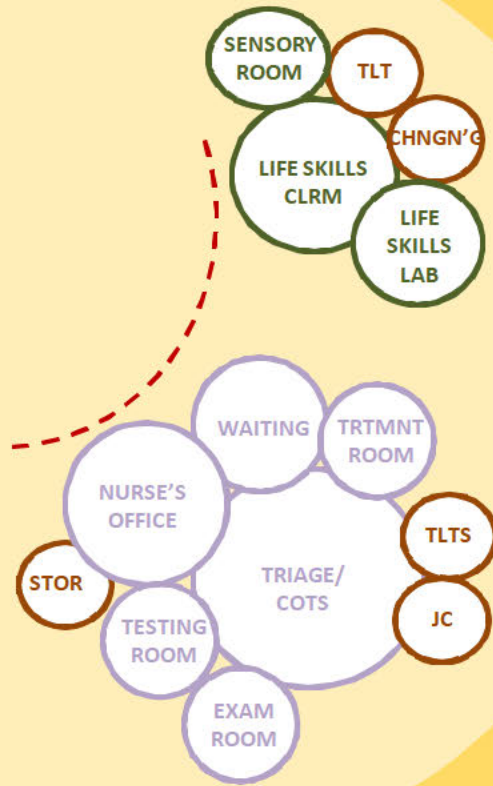


DESCRIPTION	TARGET AREA	NOTES
Guidance/Career Center Suite		Located near the Main Administration Office
Guidance Center (Secretary/Reception)	200 sf	
Student Records	300 sf	
General Storage	100 sf	
Test Storage	100 sf	
Kitchenette	80 sf	
Toilets	160 sf	Men's and Women's Toilets
Guidance Office	200 sf	
Guidance Office	200 sf	
Conference Room	400 sf	Include moveable partition
Career Center	600 sf	Observable from all areas of the suite. Casual seating, café tables, activity tables, tv's
Academic Specialist's Office	200 sf	
Collegiate Affairs Office	200 sf	
Career Counselor's Office	200 sf	
Conference Room	400 sf	
SUBTOTAL PROGRAM AREA	3,340 sf	
Net to Gross Conversion Factor (1.35)	1,170 sf	
GUIDANCE TOTAL	4,510 sf	

GUIDANCE /CAREER CENTER

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

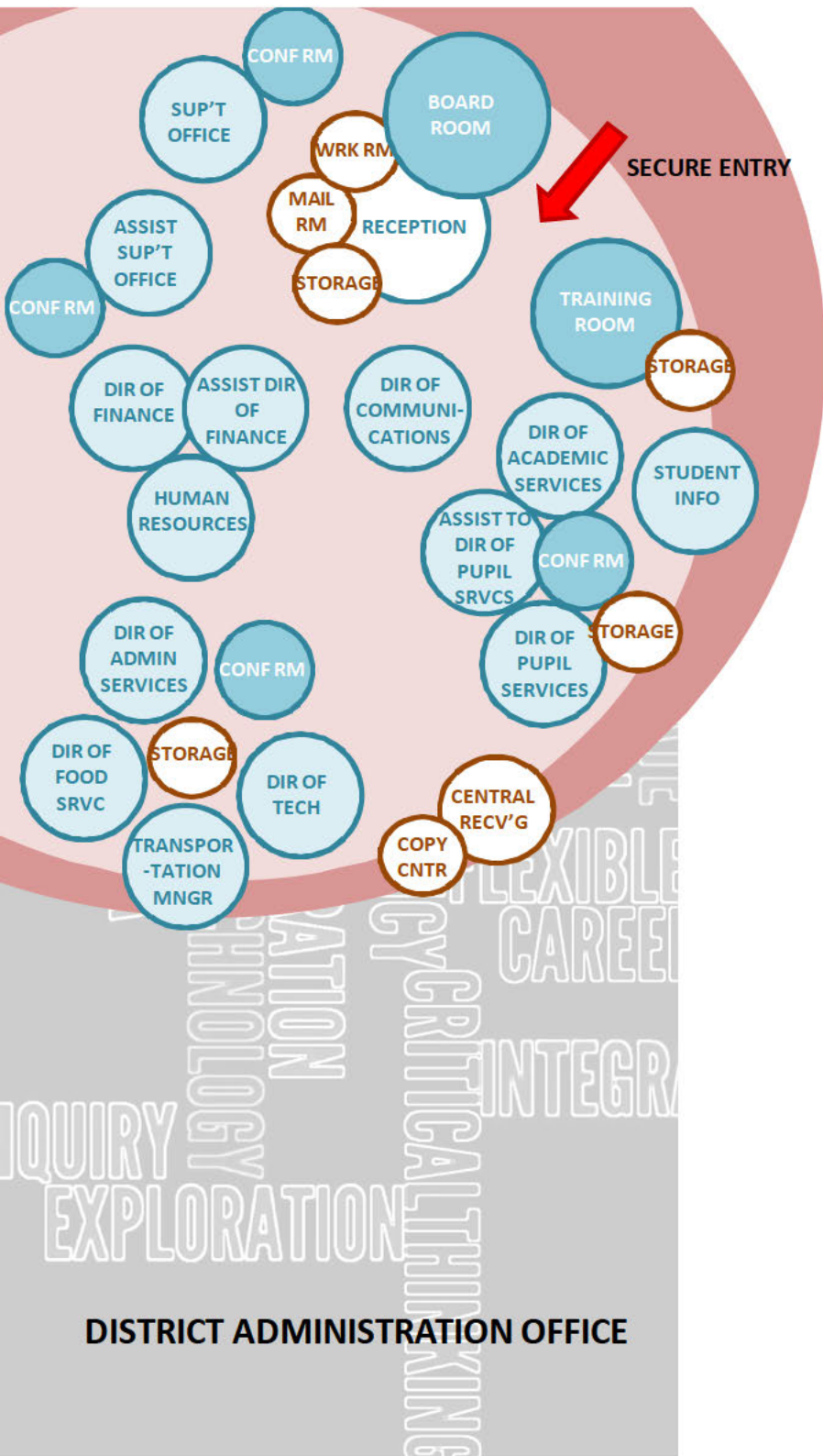


DESCRIPTION	TARGET AREA	NOTES
Nurse Suite		Located near ambulance access (accommodate wheelchairs and gurneys) and near main entry
Waiting	150 sf	
Nurse's Office	200 sf	Large narcotics cabinet, lockable refrigerator, icemaker
Triage/Cots	400 sf	3 cots
Treatment Room	100 sf	Area for students to administer medications. Small refrigerator
Recovery Room (x 2)	150 sf	
Storage	80 sf	
Toilet	120 sf	Men's & Women's toilets & shower
Custodial Closet	40 sf	
SUBTOTAL PROGRAM AREA	1,390 sf	
Life Skills Suite		Located near ambulance access (accommodate wheelchairs and gurneys)
SE-Life Skills Classroom	700 sf	
SE- Life Skills Lab	600 sf	Kitchenette, laundry, bed, etc.
Sensory Room	100 sf	
Toilet/Changing Room	200 sf	Changing table, lift, shower
SUBTOTAL PROGRAM AREA	1,600 sf	
Net to Gross Conversion Factor (1.35)	1,0450 sf	
NURSE/LIFE SKILLS TOTAL	4,035 sf	

NURSE'S SUITE/LIFE SKILLS

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM



DESCRIPTION	TARGET AREA	NOTES
District Administration Office		
Board Room	1,400 sf	
Training Room	1,200 sf	
Waiting/Reception	400 sf	
Assist. Sup't Office	250 sf	
Sup't Office	300 sf	
Small Conference Room (X2)	250 sf	
Dir. of Finance Office	250 sf	
Human Resource Office	200 sf	
Dir. of Admin. Svcs. Office	250 sf	
Dir. of Technology Office	150 sf	
Dir. of Food Services	150 sf	
Transportation Manager Office	150 sf	
Dir. of Communications Office	150 sf	
Dir. of Pupil Svcs. Office	250 sf	
Dir. of Academic Svcs. Office	200 sf	
Student Information Specialist Office	150 sf	
Assist's Offices (X5)	150 sf	
Small Conference Room (X2)	150 sf	
Central Receiving & Copy Center	2,000	
SUBTOTAL PROGRAM AREA	9,000 sf	
Net to Gross Conversion Factor (1.35)	3,150 sf	
DISTRICT OFFICE TOTAL	12,150 sf	

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – EDUCATIONAL PROGRAM

CORE/COMMONS	TARGET AREA	TOTAL AREA
PERFORMING ARTS	28,640 sf	
PHYS-ED/WELLNESS	37,080 sf	
MEDIA/TECHNOLOGY CENTER	10,700 sf	
CAFETERIA/COMMONS	9,900 sf	
INTEGRATED ARTS	11,930 sf	
CORE COMMONS SUBTOTAL		98,250 sf
Net to Gross Conversion Factor (1.35)		34,390 sf
CORE/COMMONS TOTAL		132,640 sf

ACADEMIC	TARGET AREA	TOTAL AREA
SCIENCE DEPARTMENT	13,400 sf	
MATH DEPARTMENT	7,600 sf	
ENGLISH DEPARTMENT	8,600 sf	
WORLD SCHOLARS DEPARTMENT	11,300 sf	
INNOVATION/EXPLORATION CENTER	6,450 sf	
ACADEMIC SUBTOTAL		47,350 sf
Net to Gross Conversion Factor (1.35)		16,570 sf
ACADEMIC TOTAL		63,920 sf

STUDENT SUPPORT	TARGET AREA	TOTAL AREA
ADMINISTRATION SUITE	4,670 sf	
GUIDANCE/CAREER CENTER	4,510 sf	
NURSE'S SUITE/LIFE SKILLS	4,035 sf	
STUDENT SUPPORT TOTAL		12,150 sf

DISTRICT ADMINISTRATION OFFICE	TARGET AREA	TOTAL AREA
DISTRICT ADMINISTRATION OFFICE TOTAL		11,765 sf

TOTAL PRELIMINARY H.S. BUILDING AREA = 209,775 SF

TOTAL PRELIMINARY H.S./DAO BUILDING AREA = 221,925 SF

PRELIMINARY PROGRAM SUMMARY

QUAKER VALLEY SCHOOL DISTRICT

Exhibit F – EXISTING SITE ANALYSIS



QUAKER VALLEY HIGH SCHOOL

2014 Existing Site Analysis

08/04/14

Prepared by Eckles Architecture

In the summer of 2014, Eckles Architecture met with representatives from the District Administration and representatives from districts consultants Garvin Boward Beitko Engineering, Inc. (Geotechnical Engineering) and Phillips & Associates, Inc. (Civil Engineering) to develop potential site development scenarios for the existing High School campus.

Many thanks to Superintendent Dr. Heidi Ondek, Dir. of Administrative Services Dr. Joe Marrone, Doug Beitko, and Geoff Phillips for their time and assistance in developing this preliminary site analysis.

QUAKER VALLEY HIGH SCHOOL



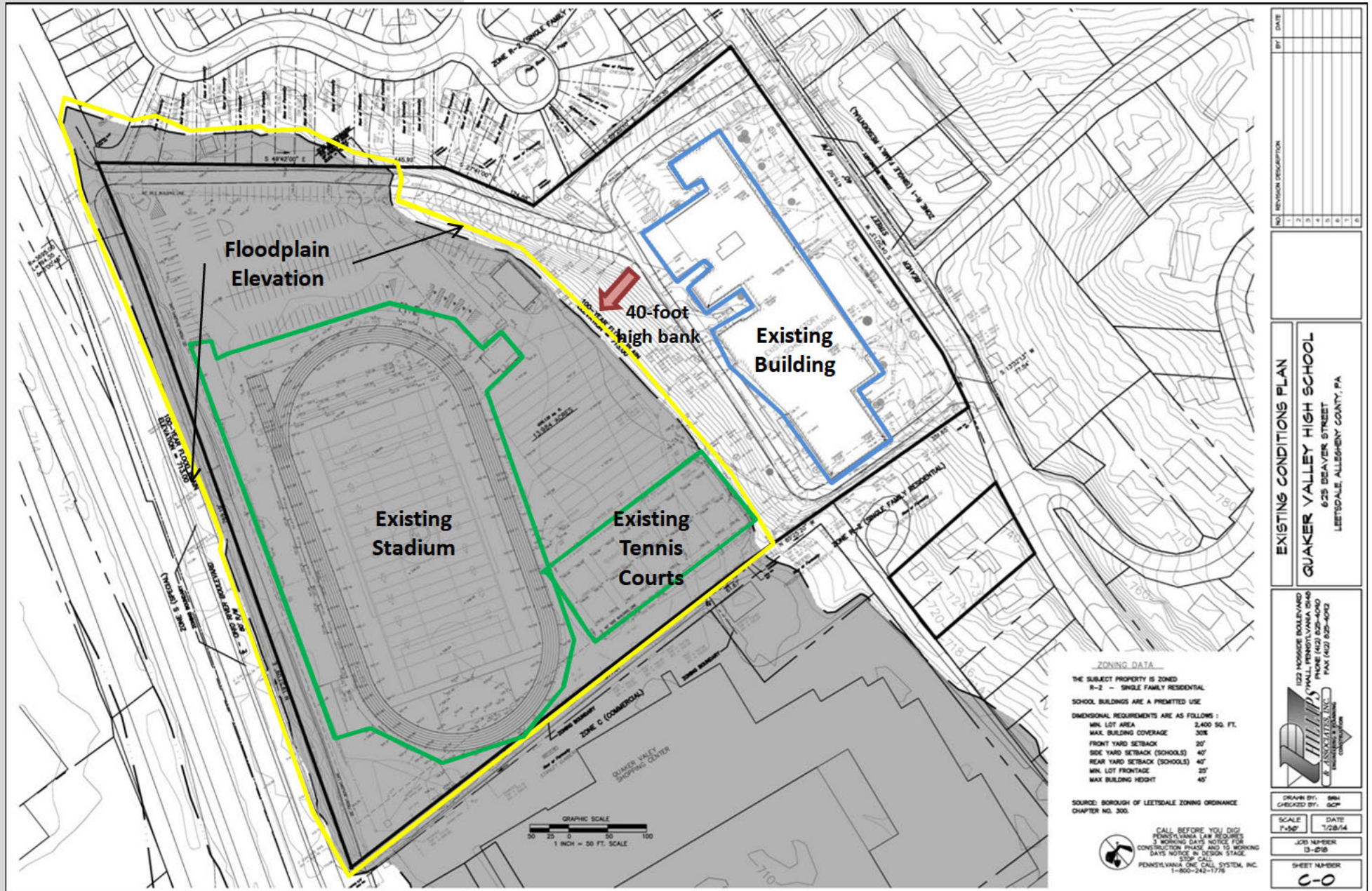
LEARNING SAFETY
COMMUNITY BUSES FLEXIBLE
TRAFFIC PARENTS
FITNESS TEACHERS STUDENTS ACTIVE
SPACE ENVIRONMENT FORWARD-THINKING
ATHLETICS
CIRCULATION
PARKING

EXISTING SITE CONDITIONS PLAN

Prepared by Phillips & Associates, Inc.

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – SITE ANALYSIS



POTENTIAL EXISTING SITE DEVELOPMENT SCENARIOS

1	<p>DEMO BUILDING & SITE – REDEVELOP/RECONFIGURE ENTIRE UNOCCUPIED SITE</p> <ul style="list-style-type: none"> • Construct new building & site features once earthmoving is completed • Vacate building prior to construction (temporarily relocate students) • Relocate stadium to alternate site
2	<p>DEMO LOWER SITE – RELOCATE STADIUM</p> <ul style="list-style-type: none"> • Construct new building on lower site in first phase, additional site amenities to be constructed once building is demolished • Occupy building during construction • Relocate stadium to alternate site
3	<p>DEMO UPPER SITE – RELOCATE STUDENTS</p> <ul style="list-style-type: none"> • Construct new building on upper site • Vacate building prior to construction (temporarily relocate students) • Maintain existing stadium
4	<p>CONSTRUCT NEW BUILDING IN PHASES</p> <ul style="list-style-type: none"> • Construct new building in phases around existing building • Occupy building during construction • Maintain existing stadium
5	<p>RENOVATE EXISTING BUILDING & SITE</p> <ul style="list-style-type: none"> • Construct additions and alterations in phases around existing building • Occupy building during construction • Maintain existing stadium

SITE DEVELOPMENT SCENARIOS

SCENARIO 1

DEMO BUILDING & SITE – REDEVELOP/RECONFIGURE ENTIRE UNOCCUPIED SITE

- 222,000 SF New multi-story HS/DAO building – building located at mid-level between top & bottom of site
- Stadium relocated to alternate site
- Students relocated off-site during construction

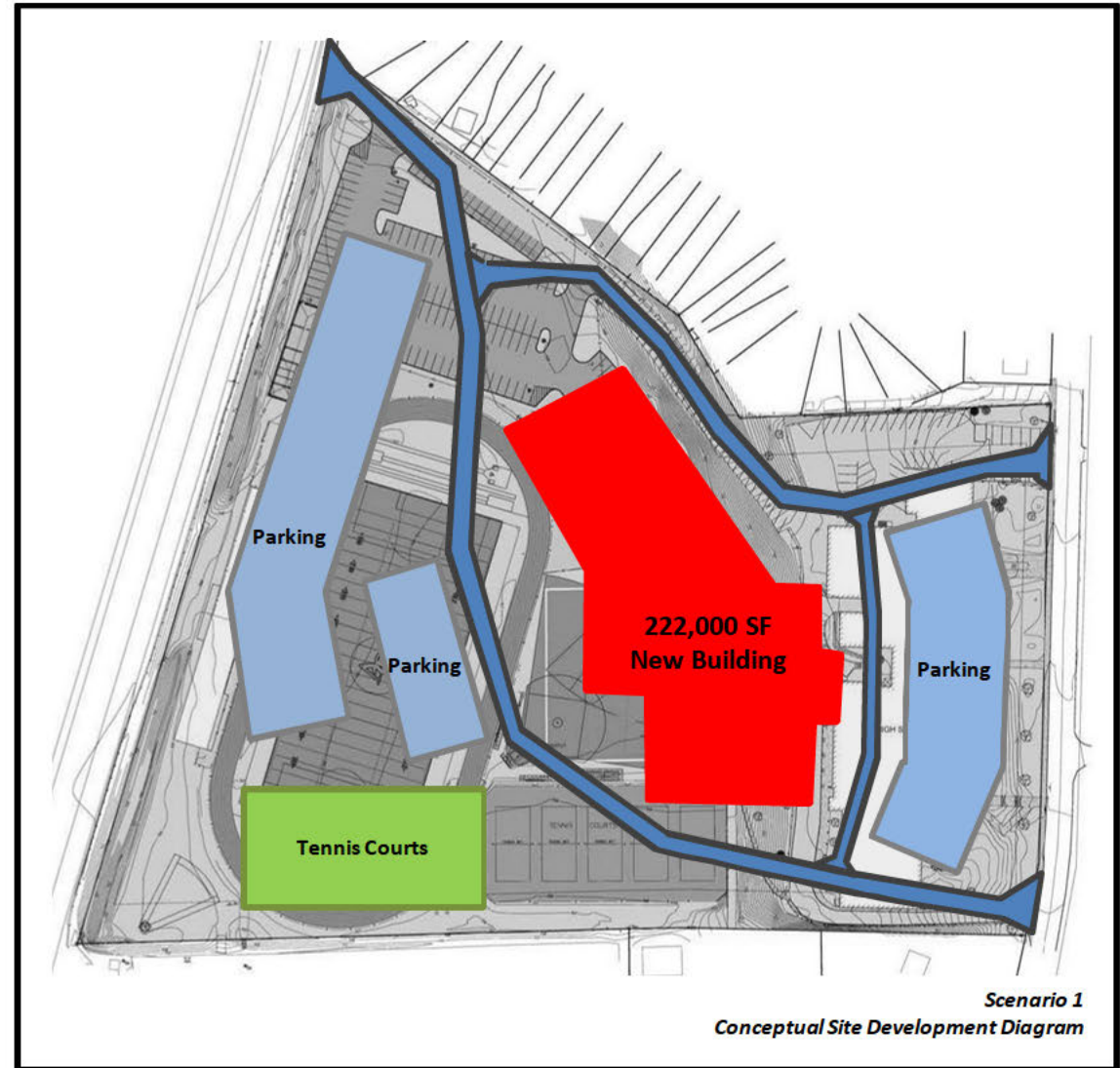
Pros & Cons

Pros

- Most straightforward construction phasing
- Safety during construction activities (students located off-site)
- Most efficient site development option (Geotechnical & Civil)
- Best opportunity to satisfy the building program

Cons

- **Need to find temporary facility for students**
- Stadium must be relocated prior to construction
- Athletic facilities are relocated off-site
- Multi-level building (three to four stories)
- Significant earthmoving activities
- Requires deep foundations
- May require significant site retaining walls
- On-going flooding concerns & maintenance at lower site
- No space available on-site for bus/maintenance facility



SCENARIO 2

DEMO LOWER SITE – RELOCATE STADIUM

- 222,000 SF New multi-story HS/DAO building – building located on lower site
- Stadium relocated to alternate site
- Students occupy existing building during construction
- Upper site construction occurs after new building completed

Pros & Cons

Pros

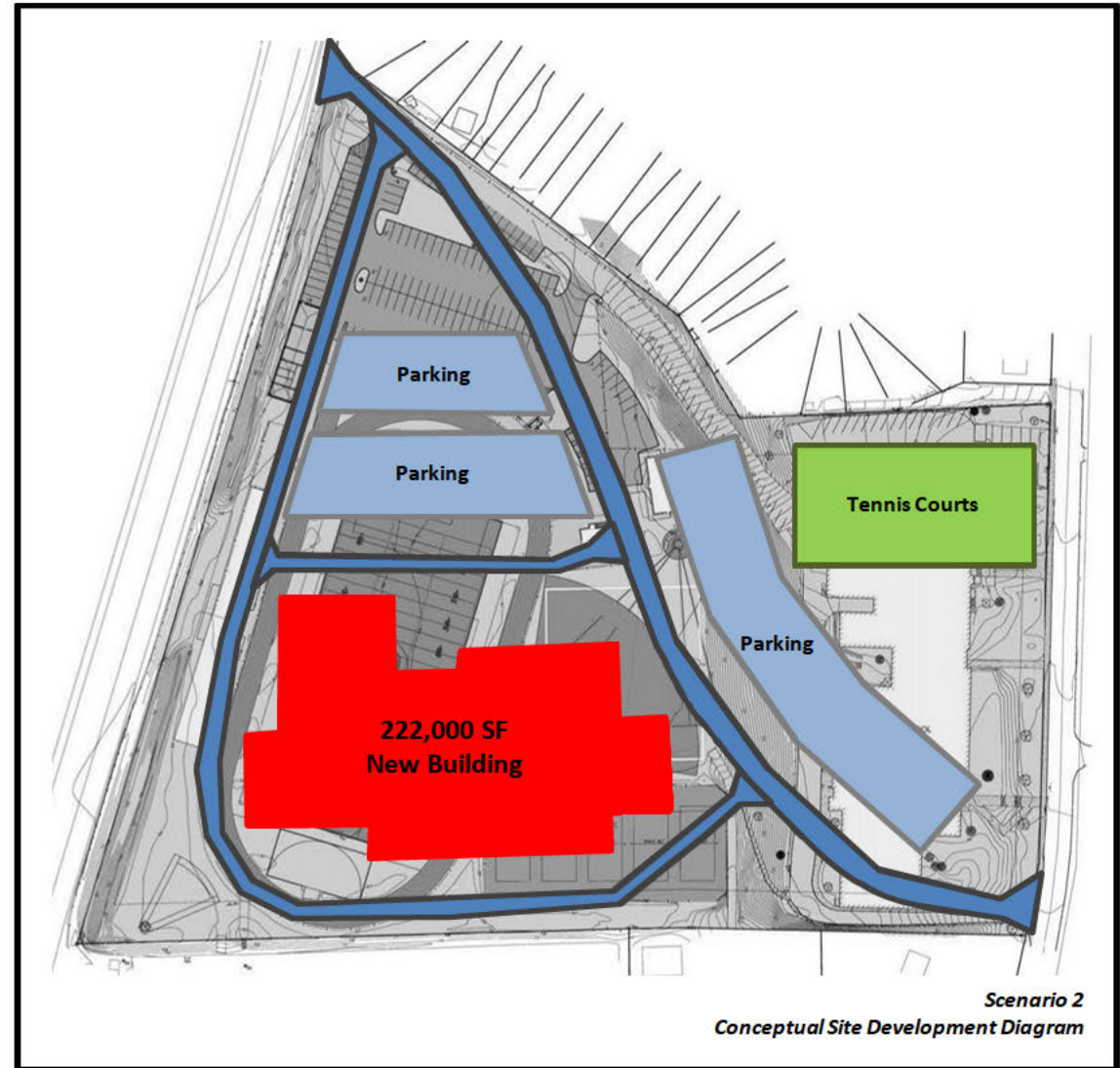
- Fairly straightforward construction phasing
- Relatively safe during construction activities (students are removed from construction area)
- Fairly efficient site development option
- Good opportunity to satisfy the building program

Cons

- Stadium must be relocated prior to construction
- Athletic facilities are relocated off-site
- Multi-level building (three to four stories)
- Requires deep foundations
- Building is within the flood-plain, additional approvals would be required & site would need to be raised to be above flood levels.
- Multiple phases – longer construction duration
- On-going flooding concerns & maintenance at lower site
- No space available on-site for bus/maintenance facility

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – SITE ANALYSIS



SCENARIO 3

DEMO UPPER SITE – RELOCATE STUDENTS

- 222,000 SF new multi-story HS/DAO building – building located on upper site & hillside
- Stadium to remain
- **Students relocated off-site during construction**

Pros & Cons

Pros

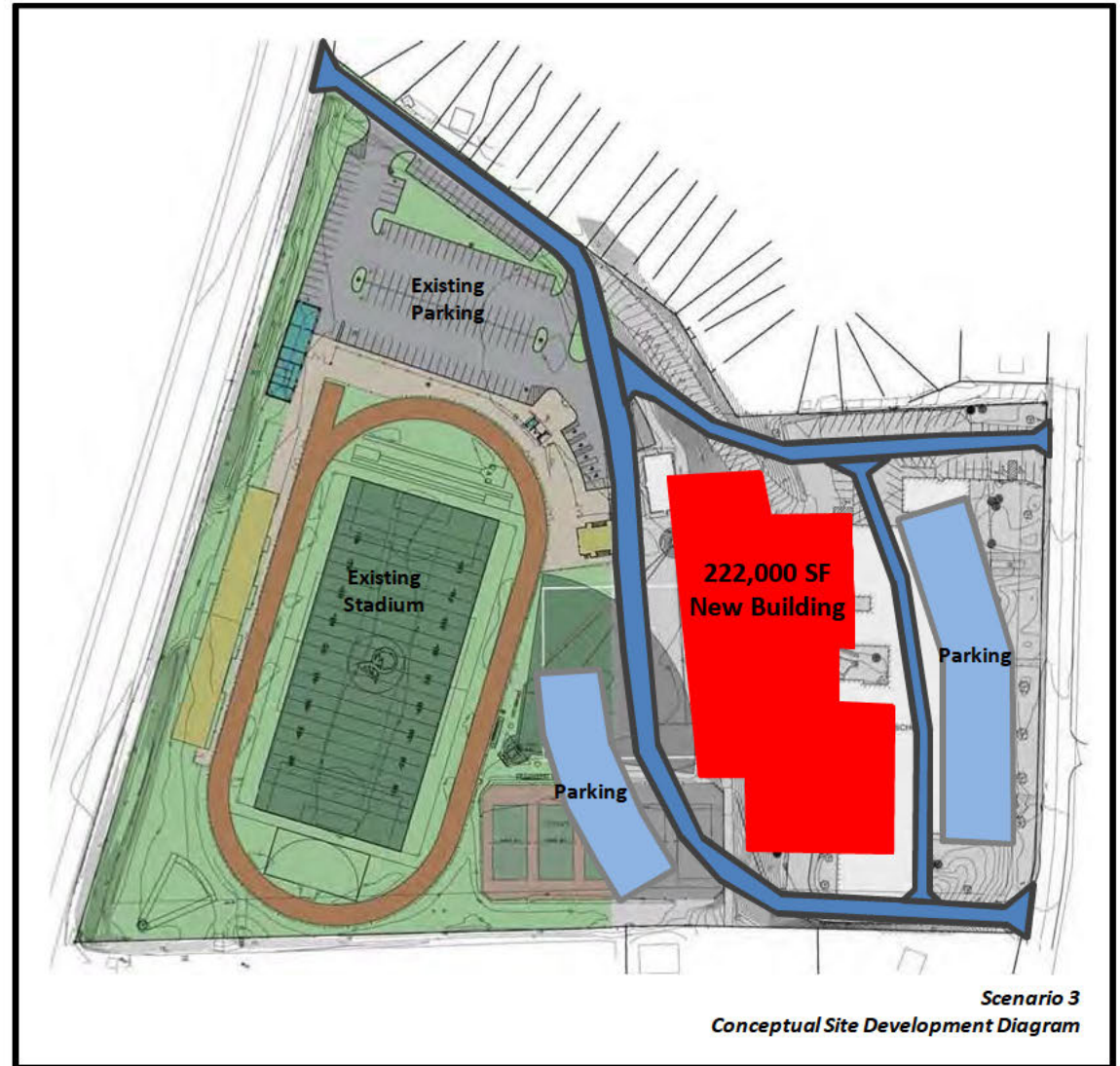
- Fairly straightforward construction phasing
- Relatively safe during construction (students located off-site during construction but stadium remains in use)
- Fairly efficient site development option
- Good opportunity to satisfy the building program
- Stadium remains on-site

Cons

- **Need to find temporary facility for students**
- Limited area for building, parking, athletics & construction laydown
- Multi-level building (four to five stories)
- Requires deep foundations
- Significant site prep & construction logistics costs
- Challenging topography and multiple ground floor levels
- Additional waterproofing requirements & costs (building built into hill)
- On-going flooding concerns & maintenance at lower site
- No space available on-site for bus/maintenance facility

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – SITE ANALYSIS



SCENARIO 4 CONSTRUCT NEW BUILDING IN PHASES

- 222,000 SF new multi-story HS/DAO building – building located on upper site & hillside
- Stadium to remain
- Students occupy building during construction
- Students are shifted around the existing & new portions of the building as the construction phases progress

Pros & Cons

Pros

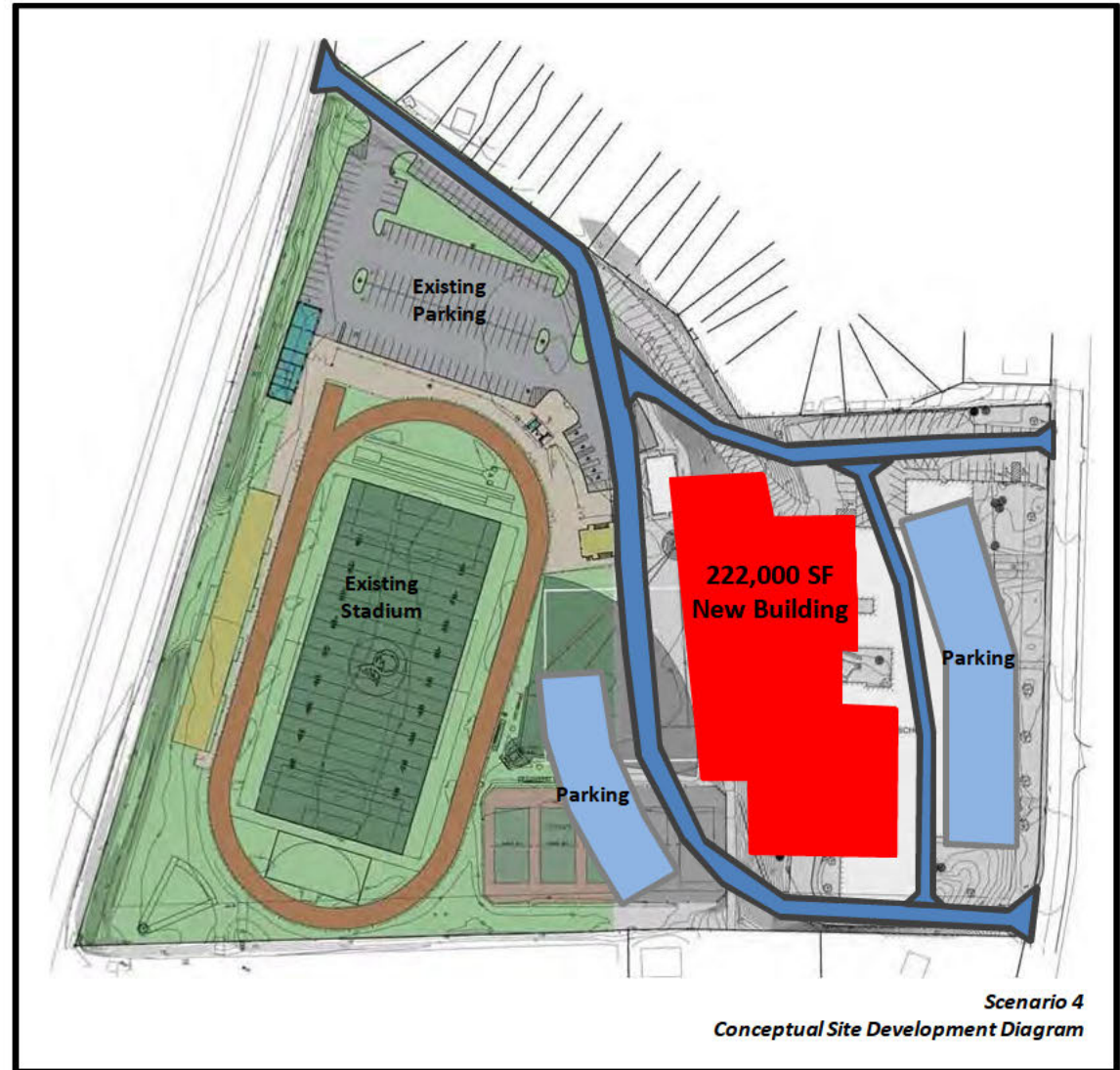
- Students occupy building during construction
- Stadium remains on-site

Cons

- Students remain on-site during construction – safety concern
- Significantly restricted area for building, parking, athletics & construction laydown
- Multi-level building (four to five stories)
- Requires deep foundations
- Challenging topography and multiple ground floor levels
- Additional waterproofing requirements & costs (building built into hill)
- Compromised access to public spaces (small first floor plate, multiple at grade entries, limited parking)
- Numerous complicated phases – significantly longer construction duration
- Significant site prep & construction logistics costs
- On-going flooding concerns & maintenance at lower site
- No space available on-site for bus/maintenance facility

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – SITE ANALYSIS



SCENARIO 5

ADDITIONS/ALTERATIONS TO EXISTING BUILDING

- 222,000 SF new multi-story HS/DAO building – building located on upper site & hillside
- Students occupy building during construction
- Students are shifted around the existing & new portions of the building as the construction phases progress

Pros & Cons

Pros

- Students occupy building during construction
- Stadium remains on-site

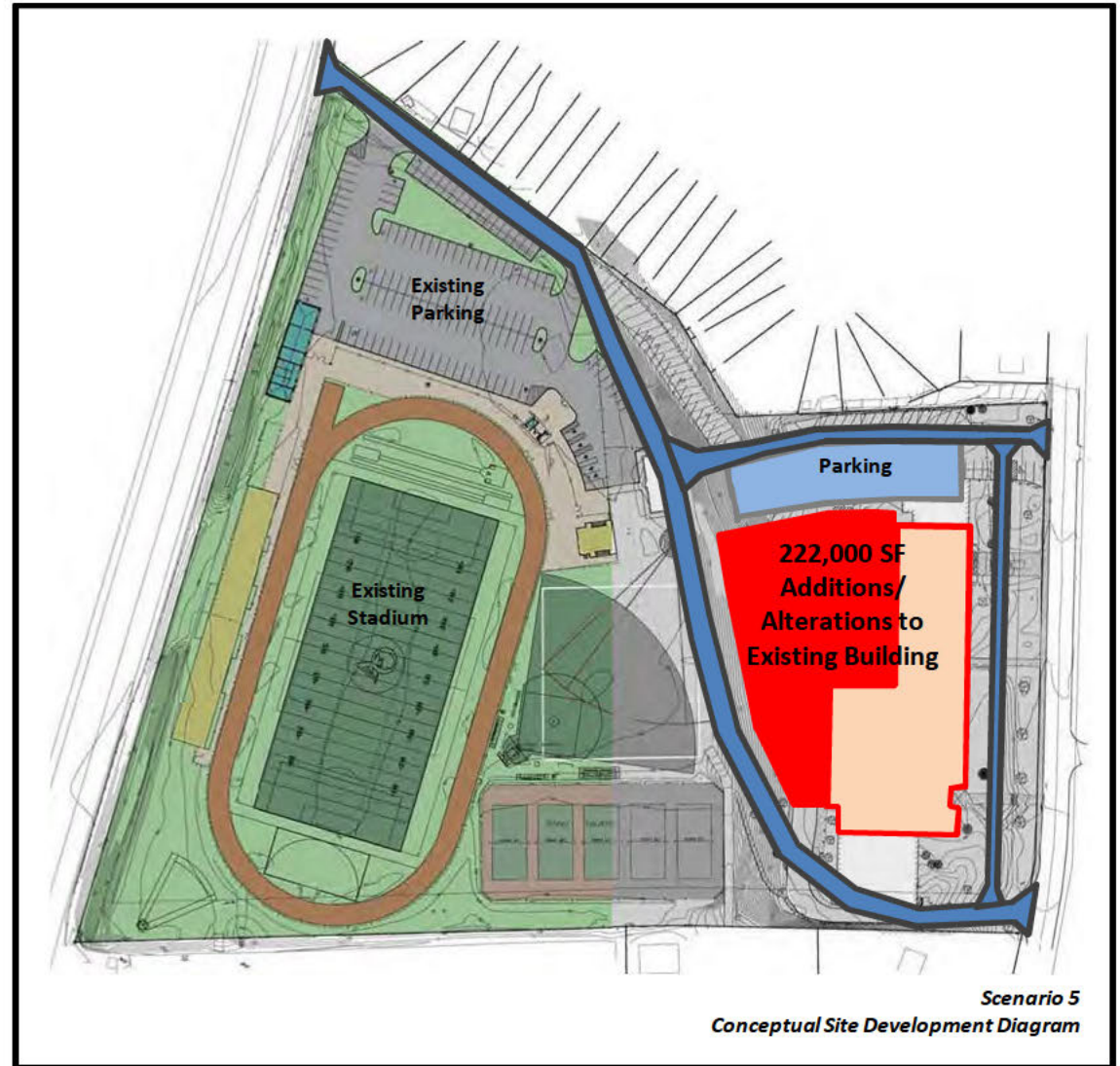
Cons

- Student safety - students remain on-site during construction
- Significantly restricted area for building, parking, athletics & construction laydown
- Multi-level building (four to five stories)
- Existing building may not be conducive to new programs & functions
- Requires deep foundations
- Challenging topography and multiple ground floor levels
- Additional waterproofing requirements & costs (building built into hill)
- Numerous complicated phases – significantly longer construction duration
- Compromised access to public spaces (restricted first floor, multiple at-grade entries, limited parking, etc.)
- Significant site prep & construction logistics costs
- On-going flooding concerns & maintenance at lower site
- No space available on-site for bus/maintenance facility

SITE DEVELOPMENT SCENARIOS

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – SITE ANALYSIS

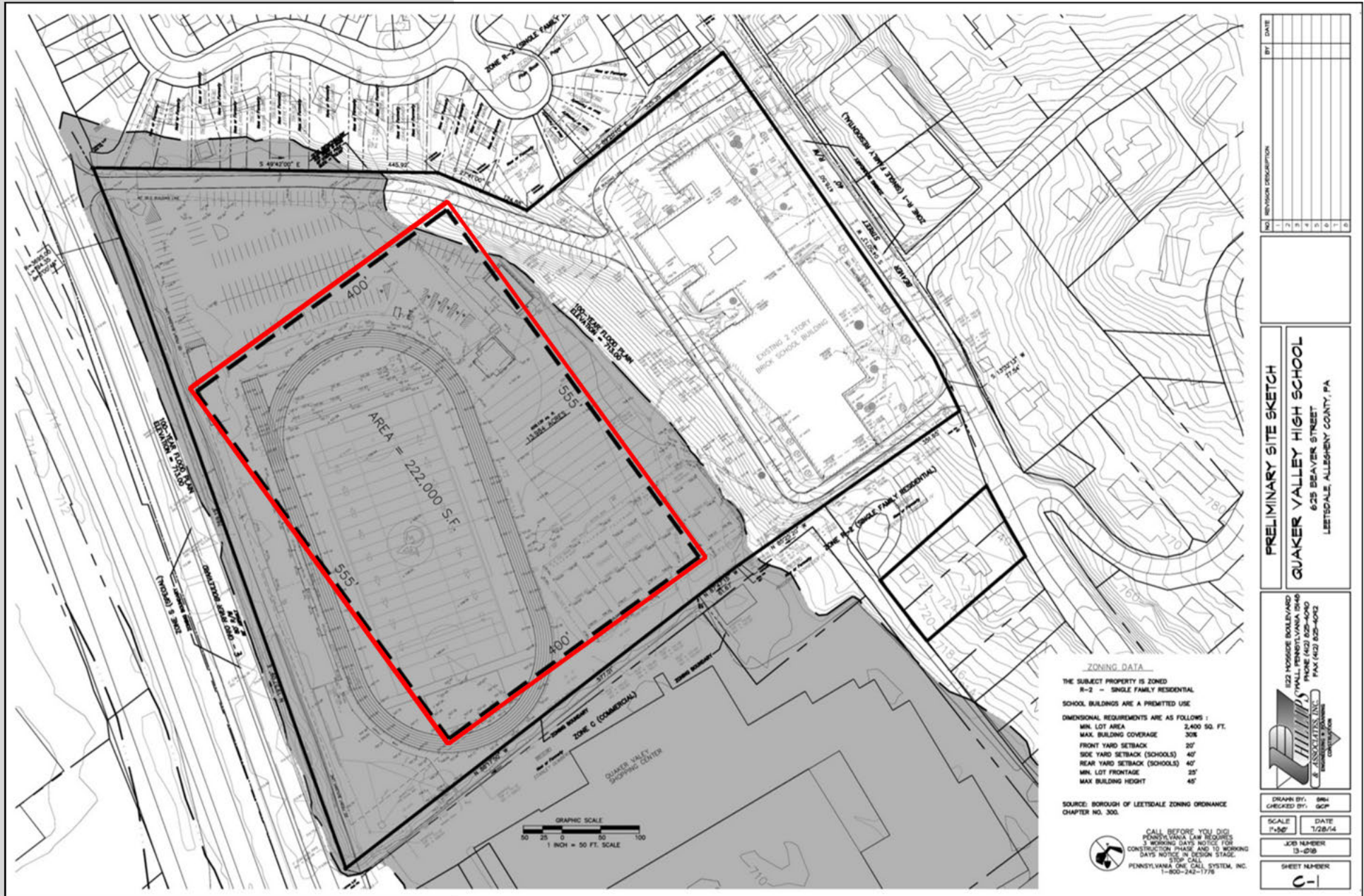


PROGRAM AREA OVERLAY – 1 TO 2 STORY

Prepared by Phillips & Associates, Inc.

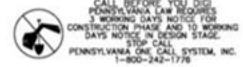
QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – SITE ANALYSIS



ZONING DATA
 THE SUBJECT PROPERTY IS ZONED
 R-2 - SINGLE FAMILY RESIDENTIAL
 SCHOOL BUILDINGS ARE A PERMITTED USE
 DIMENSIONAL REQUIREMENTS ARE AS FOLLOWS:
 MIN. LOT AREA 2,400 SQ. FT.
 MAX. BUILDING COVERAGE 30%
 FRONT YARD SETBACK 20'
 SIDE YARD SETBACK (SCHOOLS) 40'
 REAR YARD SETBACK (SCHOOLS) 40'
 MIN. LOT FRONTAGE 25'
 MAX. BUILDING HEIGHT 45'

SOURCE: BOROUGH OF LEETSDALE ZONING ORDINANCE CHAPTER NO. 300.



NO.	REVISION DESCRIPTION	BY	DATE
1			
2			
3			
4			
5			
6			
7			
8			

PRELIMINARY SITE SKETCH
QUAKER VALLEY HIGH SCHOOL
 628 BEAVER STREET
 LEETSDALE, ALLEGHENY COUNTY, PA

622 HORSBURG BOULEVARD
 WALL PENNSYLVANIA 1840
 PHONE (412) 822-4040
 FAX (412) 822-4042

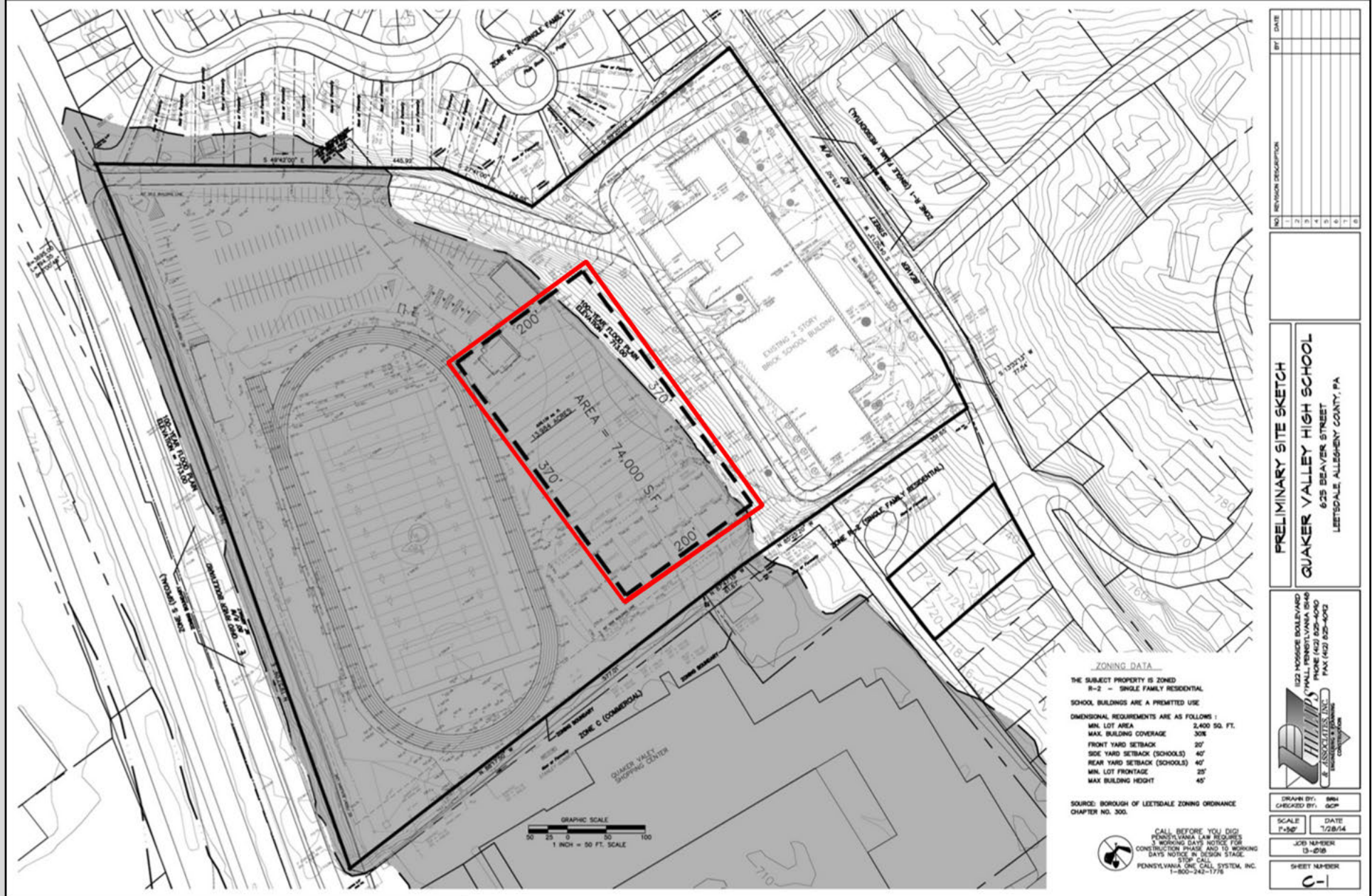
DRAWN BY: SMH	DATE: 1/28/14
CHECKED BY: GCP	SCALE: 1"=50'
JOB NUMBER: 13-078	SHEET NUMBER: C-1

PROGRAM AREA OVERLAY – 3 TO 4 STORY BUILDING

Prepared by Phillips & Associates, Inc.

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – SITE ANALYSIS



PROGRAM AREA OVERLAY – 5 TO 6 STORY BUILDING

Prepared by Phillips & Associates, Inc.

QUAKER VALLEY HIGH SCHOOL

2014 Feasibility Study – SITE ANALYSIS

