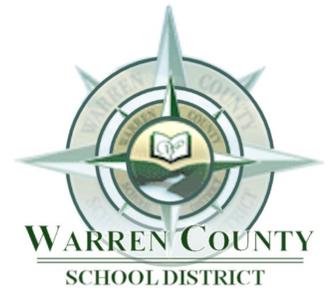




District-wide Capacity Study  
Warren County School District

June 27, 2022

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## Executive Summary

### On-Time. On-Budget.

It's the most basic goal of any project, and it's particularly important for educational facilities - where delays and cost overages can impact each student's opportunity to learn and achieve. Just as our school district clients take on the monumental responsibility of educating their students, we, as their partners, take the responsibility for ensuring that all their goals for their building projects are accomplished.



### Look Deeper.

Look deeper into the most successful K12 building projects that you have seen and you will find there is something in common: the completed facility is a uniquely crafted reflection of the educational process which it houses. As your trusted and experienced guide, we provide the knowledge, technology and strategies to work within your budget and schedule and we look deeply into your needs in order to help you craft a very special facility.



### Management through Engagement.

Engagement is the engine of our management approach. Through all the phases of your project – planning, design, construction and start-up, we'll actively engage with you, all of the design professionals and the contractors in order to bring about a collaborative environment for all stakeholders to maximize their contributions to your project.

management  
Engagement

## *History of the Firm*

### **History of the Firm.**

Jon Thomas and David Williamson first met in 1991, while both were employed at the Pittsburgh headquarters of a national engineering and project/construction management firm. Over the next six years, they would collaborate on numerous K12 projects and building programs.

In 1998, following the acquisition of the firm where they were employed, Mr. Thomas and Mr. Williamson set out on their own and formed Thomas & Williamson. Built upon the partners' expertise in the field of project planning and management, T&W gained immediate recognition for its specialization in providing integrated planning and management services for K12 clients in Western PA.

24 years later, with Mr. Williamson's change to emeritus status, Mr. Thomas continues the tradition of the firm, which as K12 specialists, stands out with its unsurpassed depth of services. The firm is increasingly sought out to both manage and consult on projects with quick turnaround requirements, intense budget sensitivity and to develop innovative strategies to uniquely support its clients' educational programming objectives.



**Jon M. Thomas**

*Principal*

Mr. Thomas is in-charge of the firm's program management group, which provides integrated facility planning, design monitoring and management and project/construction management services. His practice is focused on K-12 educational facilities, where he has served on projects with a total value exceed \$2 billion.

In addition to providing executive level project management on the firm's large construction management contracts, Mr. Thomas participates in all programming and planning assignments, design reviews and work plan/schedule development. He also developed and continues to improve the firm's project controls systems. Those systems include program development systems, cost modeling and tracking systems, modeled CPM schedules, labor tracking systems and project administration systems.

He is also regularly engaged as an expert in building construction-related matters and has testified as an expert in numerous arbitration hearings as well as in court cases in several states. The topics of his expert witness assignments have included a variety of construction management-related issues.

He earned a bachelor's degree in Civil Engineering Technology and was awarded the Alpha Sigma Lambda Medal from Point Park University in Pittsburgh. He began his progressive 39-year career – working first as a drafter and later, as a designer, project engineer, project manager and project executive. Prior to co-founding the firm, he was employed by several notable Pittsburgh firms including D&L, Inc., Larsen & Ludwig Architects and Engineers and Dowler-Yecko Architects.



**David M. Williamson, PE**

*Principal - Emeritus*

Co-Founder of Thomas & Williamson, Mr. Williamson amassed nearly 50 years of experience as a project manager for school, university, institutional and governmental projects. Experienced in CPM scheduling, estimating, cost control and construction management, Mr. Williamson has worked on projects ranging from elementary school renovations to university recreation centers. In addition, Mr. Williamson served as an on-site construction manager for a variety of educational and institutional projects.

Mr. Williamson has also provided technical assistance to financial institutions, insurance companies and government agencies in overseeing construction projects. These services have provided an assessment of the overall project schedule, budget and scope of work. A critical aspect of this work is keeping the client informed of any significant issues that may impact the project schedule, budget, scope, or quality of work.



Mr. Williamson has earned a bachelor's degree and a master's degree in Civil Engineering from Carnegie-Mellon University as well as a Master of Business Administration from the University of Pittsburgh. He is also a Professional Engineer.

He continues to maintain a private practice serving government agencies involved in funding projects through Pennsylvania's RACP program.

## *Planning Team*

Thomas & Williamson is fortunate enough to attract employees and consultants from a variety of fields, each possessing unique skills and experience. These key team members have been selected specifically for this study:

### **Jon M. Thomas - Principal Team Lead**

Co-founder and president of Thomas & Williamson: Mr. Thomas has 39 years of experience as a project manager of school and institutional projects. His experience is equally apportioned in planning, design and construction and includes a vast portfolio of K-12 school construction projects valued at over \$2 billion.

### **Katie Dedola - Planner Planner - Utilization**

Mrs. Dedola has 15 years of experience in the design industry, and with it, a unique set of skills. Katie had recently worked on a facilities master plan study for the Butler Area School District, a demographic and educational facility study for Pine-Richland School District and was part of the planning teams for Warren High School as well as the Career Center.

### **Carrie Crawford – Project Manager Planner – Conceptual Planning**

Carrie is trained as an Interior Designer and participates on most of T&W's K12 planning assignments. She specializes conceptual planning and programming and has participated on studies for Portland Public Schools, West Allegheny School District, West Jefferson Hills School District. Carrie has 14 years of experience, including on-site experience as a project manager.

## **Katie Dedola**

*Planner*

Ms. Dedola has been part of our facility planning team since 2013. She brings over 15 years of experience in the design industry, serving in a variety of planning and design roles and she has a unique set of skills that translates well to assisting Thomas & Williamson's clients.

Katie's previous design experience has given her a building trade perspective, allowing her to develop essential space planning skills, as well as the ability to interpret construction drawings. She also cultivated essential communication skills helping to identify clients' needs while balancing those needs with expectations and budget requirements.

Katie specializes in conceptual planning, space utilization and master schedule utilization studies and she has demonstrated her ability to improve facility utilization rates in several past studies in support of our planning team.

### **Study Experience:**

- Warren High School
- Warren County Career School
- Quaker Valley High School
- Portland Public Schools\*
- Butler Area School District\*
- Mars Area School District\*
- West Allegheny School District\*
- Pine-Richland School District\*

\*Districtwide Studies



### **Education**

BS Interior Design,  
Indiana University of Pennsylvania

### **Experience**

15 years

## **Carrie Crawford**

*Project Manager*

Ms. Crawford brings 14 years of experience in architectural design and construction management to Thomas & Williamson. Most of her design and construction management experience involves her work in the planning and management of K-12 projects.

Carrie's skillset has proven to be an asset to the firm. In her tenure with T&W, she has served as the project manager on a comprehensive building program at West Allegheny School District, successively managing additions and renovations at two elementary schools, the high school and the athletics stadium. She has also completed projects at Carlynton SD, West Jefferson Hills SD and Fox Chapel SD. While onsite, Ms. Crawford manages all aspects of our clients' projects to ensure an on-time | on-budget delivery and that all project quality objectives are met.

Carrie has also been regularly involved in studies for the Fox Chapel Area School District, Portland Public Schools and the West Allegheny School District. She is an integral part of the planning team and specializes in preparing detailed programming information, conceptual planning, cost modeling and study facilitation.

Prior to joining Thomas & Williamson, she worked for a Pittsburgh-based architectural firm as an Interior Designer and Construction Manager. She assisted in the management of a \$65 million-dollar new high school project and oversaw a \$35 million dollar middle school renovation.



### **Education**

BS Interior Design  
LaRoche University

### **Experience**

14 years

## Study Experience

### **Elizabeth Forward School District**

*Pittsburgh, Pennsylvania*

Contact:

Mr. Edward Campbell  
(412) 638-5630

Year of Service: 1998

#### **Project Feasibility Studies:**

- Programming
- Space Utilization Study
- Enrollment Projections/Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design
- Detailed Site Utilization Studies

1-Athletic Facility

1-High School Complex Master Plan

### **North Allegheny School District**

*Pittsburgh, Pennsylvania*

Contact:

Mr. Robert Gaertner, PE  
(412) 369-5432

Year of Service: 1999-2003

#### **Project Elementary Studies Phase 2:**

- Space Utilization Study
- Demographics Study
- Enrollment Projections/Capacity Analysis
- Cost Modeling/Budget Development
- Time/Dollar-Scaled Facility Assessments
- Facility Assessments
- Conceptual Design
- Technology Planning

7-Elementary Schools

### **Warren County School District**

*Warren, Pennsylvania*

Contact:

Dr. Norbert Kennerknecht  
(814) 723-5223

Year of Service: 1999

#### **Project Feasibility Studies:**

- Programming
- Space Utilization Study
- Enrollment /Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

1-Middle School

2-Elementary Schools

#### **District-wide Space Utilization Study:**

3-High Schools, 1-Junior/Senior High School

1-Middle/High School

3-Middle Schools

15-Elementary Schools

### **Manhasset UFSD**

*Manhasset, New York*

Contact:

Dr. Lawrence Bozzomo  
(267) 261-4360

Year of Service: 2000

#### **Districtwide Facilities Master Plan:**

- Programming
- Space Utilization Study
- Enrollment/Capacity Analysis
- Cost Modeling
- Facility Assessments

2-Elementary Schools

1-Secondary School

1-District Office

1-Transportation Facility

## Study Experience

### **Miller Place UFSD** Miller Place, New York

Contact:  
Dr. Grace J. Brindley  
(631) 474-2700

Year of Service: 2000

#### **Districtwide Facilities Master Plan:**

- Space Utilization Study
- Enrollment/Capacity Analysis
- Cost Modeling
- Facility Assessments

- 1-Primary School
- 1-Intermediate School
- 1-Middle School
- 1-High School
- 1-District Administration Facility
- 1-District Maintenance Facility
- 1-District Athletic Facility

### **Palisades School District** Bucks County, Pennsylvania

Contact:  
Mr. Dave Keppel  
(610) 847-5131

Year of Service: 2000-2010

#### **Project Feasibility Studies:**

- Programming
- Space Utilization Study
- Enrollment Projections/Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

- 1-High School
- 2-Elementary Schools
- 1-Athletic Facility

### **Gateway School District** Pittsburgh, Pennsylvania

Contact:  
Dr. Richard Domencic  
(717) 938-9577

Year of Service: 2001

#### **Project Feasibility Studies:**

- Programming
- Space Utilization Study
- Enrollment Projections/Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

- 1-High School
- 2-Athletic Facilities

### **West Jefferson Hills School District** Jefferson Hills, Pennsylvania

Contact:  
Mr. Bruce Elms  
(412) 384-6845

Year of Service: 2004

#### **Project Feasibility Studies:**

- Programming
- Space Utilization Study
- Enrollment Projections/Capacity Analysis
- Cost Modeling/Budget Development
- Time/Dollar-Scaled Facility Assessments
- Conceptual Design

- 1-High School
- 1-Elementary School
- 1-District Office

## Study Experience

### **Avonworth School District**

*Pittsburgh, Pennsylvania*

Contact:

Dr. Valerie McDonald  
(412) 369-8738

Year of Service: 2005, 2007 & 2009

#### **Districtwide Facilities Master Plan:**

- Project Visioning
- Programming
- Space Utilization Studies
- Demographics Study
- Enrollment/Capacity Analysis
- Cost Modeling
- Facility Assessments
- Land Development Study

1-High School/Middle School  
1-Intermediate School  
1-Primary School  
1-District Office

### **Moon Area School District**

*Moon Twp., Pennsylvania*

Contact:

Mr. Alan Bennett  
(412) 264-9440

Year of Service: 2006

#### **Districtwide Facilities Master Plan:**

- Programming
- Space Utilization Studies
- Enrollment/Capacity Analysis
- Cost Modeling
- Time/Dollar-Scaled Facility Assessments
- Project Abandonment – Risk Analysis

1-High School  
1-Middle School  
4-Elementary Schools  
1-District Office

Study Experience

### **North Hills School District**

*Pittsburgh, Pennsylvania*

Contact:

Dr. Patrick Mannarino  
(412) 318-1004

Year of Service: 2009 & 2011

#### **Project Feasibility Studies:**

- Project Visioning
- Thematic Development
- Programming
- Space Utilization Study
- Enrollment /Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

2-Elementary Schools  
1-Middle School

### **Montour School District**

*Robinson Township, Pennsylvania*

Contact:

Mr. Jason Burik  
(412) 787-0408

Year of Service: 2011

#### **Project Feasibility Study:**

- Conceptual Estimate
- Conceptual Design

1-Athletic Facility

## Study Experience

### West Allegheny School District

*Imperial, Pennsylvania*

Contact:

Mr. Ken Fibbi  
(724) 695-5223

Year of Service: 2012

#### Project Feasibility Studies:

- Programming
- Space Utilization Study
- Enrollment /Capacity Analysis
- Cost Modeling/Budget Development
- Time/Dollar-Scaled Facility Assessments
- Facility Assessments
- Conceptual Design

2-Elementary Schools

1-District Administration Office

### Warren County School District

*Warren, Pennsylvania*

Contact:

Dr. Norbert Kennerknecht  
(814) 723-5223

Year of Service: 2012

#### Project Feasibility Study:

- Programming
- Space Utilization Study
- Conceptual Design

2-Elementary Schools

### North Allegheny School District

*Pittsburgh, Pennsylvania*

Contact:

Mr. Robert Gaertner, PE  
(412) 369-5432

Year of Service: 2012

#### Project Feasibility Studies:

- Programming
- Space Utilization Study
- Enrollment Projections/Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

2-High Schools

2-Middle Schools

5-Elementary Schools

1-District Office

1-Transportation Facility

2-Athletic Facilities

### Warren County School District

*Warren, Pennsylvania*

Contact:

Dr. Norbert Kennerknecht  
(814) 723-5223

Year of Service: 2014

#### Project Feasibility Study:

- Programming
- Space Utilization Study
- Enrollment /Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

1-High School

## Study Experience

### **Butler Areas School District**

*Butler, Pennsylvania*

Contact:

Dr. Brian Slamecka  
(724) 214-3106

Year of Service: 2014

#### **Districtwide Facilities Master Plan:**

- Programming
- Space Utilization Study
- Enrollment /Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

#### **District-wide Facilities Master Plan:**

- 1-High School
- 1-Jurnior High School
- 1-Intermediate School
- 11-Elementary Schools

### **Clarence Brown Education Center**

*Butler, Pennsylvania*

Contact:

Mrs. Kristen White  
(724) 776-1581

Year of Service: 2014

#### **Project Feasibility Study:**

- Facility Assessments

- 1-Education Center

### **Warren County Career Center**

*Warren, Pennsylvania*

Contact:

Dr. Norbert Kennerknecht  
(814) 723-5223

Year of Service: 2015, 2016 & 2017

#### **Project Feasibility Study**

- Programming
- Space Utilization Study
- Enrollment /Capacity Analysis
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

- 1-Cereer Center

### **Mars Area School District**

*Mars, Pennsylvania*

Contact:

Dr. William Pettigrew  
(724) 679-1596

Year of Service: 2015

#### **Districtwide Facilities Master Plan:**

- Facility Assessments
- District Office Programming

- 1-High School
- 1-Middle School
- 4-Elementary Schools
- 1-District Administration Office

## Study Experience

### **Pine-Richland School District**

*Gibsonia, Pennsylvania*

Contact:

Dr. Brian Miller  
(724) 625-7773

Year of Service: 2016

#### **Districtwide Facilities Master Plan:**

- Demographics & Enrollment Study
- Building Capacity Study
- Conceptual Redistricting Planning

1-High School

1-Middle School

1-Upper Elementary School

3-Elementary Schools

### **North Hills School District**

*Pittsburgh, Pennsylvania*

Contact:

Dr. Patrick Mannarino  
(412) 6318-1004

Year of Service: 2016

#### **Facility Planning Study:**

- Programming
- Cost Modeling/Budget Development
- Facility Assessments
- Conceptual Design

1-District Administration Office

### **West Allegheny School District**

*Imperial, Pennsylvania*

Contact:

Mr. Ken Fibbi  
(724) 695-5223

Year of Service: 2016

#### **Project Feasibility Studies:**

- Programming
- Cost Modeling/Budget Development
- Limited Facility Assessments
- Conceptual Design

1-High School (Athletic Wing)

1-High School Track & Field

### **West Allegheny School District**

*Imperial, Pennsylvania*

Contact:

Mr. Ken Fibbi  
(724) 695-5223

Year of Service: 2017

#### **Project Feasibility Studies:**

- Demographics & Enrollment Study
- Building Capacity Study
- Conceptual Redistricting Planning

3-Elementary Schools

1-Middle School

## Study Experience

### **Portland Public Schools**

*Portland, Maine*

Contact:

Mr. Xavier Botana  
(207) 874-8110

Year of Service: 2019

#### **Districtwide Enrollment & Capacity Studies:**

- Space Utilization Study
- Enrollment /Capacity Analysis
- Cost Modeling/Budget Development
- Conceptual Design

9-Elementary Schools  
3-Middle Schools  
3-High Schools

### **Fox Chapel Area School District**

*Pittsburgh, Pennsylvania*

Contact:

Mr. Dan Breitreutz  
(412) 967-2474

Year of Service: 2019

#### **Facility Assessments Studies:**

- Cost Modeling/Budget Development
- Time/Dollar-Scaled Facility Assessments
- Facility Assessments

3-Elementary Schools  
1-Middle Schools  
1-High Schools

### **Warren County School District**

*Warren, Pennsylvania*

Contact:

Dr. Norbert Kennerknecht  
(814) 723-5223

Year of Service: 2019

#### **Facility Assessments Studies:**

- Cost Modeling/Budget Development
- Time/Dollar-Scaled Facility Assessments
- Facility Assessments

1-Elementary School  
1-Elementary/Middle School  
2-K-12 Schools  
1-Middle Schools  
1-High School

### **West Allegheny School District**

*Imperial, Pennsylvania*

Contact:

Mr. Ken Fibbi  
(724) 695-5223

Year of Service: 2019

#### **Project Feasibility Study:**

- Programming
- Cost Modeling/Budget Development
- Space Utilization Study
- Conceptual Design

1-High School (Science Dept. Wing)

## Study Experience

### **West Jefferson Hills School District**

*Jefferson Hills, Pennsylvania*

Contact:

Dr. Michael Ghilani  
(412) 655-8450

Year of Service: 2019

#### **Districtwide Enrollment & Capacity Studies:**

- Demographics & Enrollment Study
- Building Capacity Study

1-Middle School  
1-Intermediate School  
2-Elementary Schools

### **West Allegheny School District**

*Imperial, Pennsylvania*

Contact:

Mr. Ken Fibbi  
(724) 695-5223

Year of Service: 2020

#### **Project Feasibility Study:**

- Programming
- Enrollment/Capacity Analysis
- Space Utilization Study
- Cost Modeling/Budget Development
- Conceptual Design

1-Middle School

### **Pine-Richland School District**

*Gibsonia, Pennsylvania*

Contact:

Dr. Brian Miller  
(724) 625-7773

Year of Service: 2020

#### **Demographics Study Update:**

- Demographics & Enrollment Study

1-High School  
1-Middle School  
1-Upper Elementary School  
3-Elementary Schools

### **Quaker Valley School District**

*Leetsdale, Pennsylvania*

Contact:

Mr. Charlie Gauthier  
(412) 749-3604

Year of Service: 2020

#### **Pre-Design Finalization Study:**

- Facility Program
- Site Development Program
- Building Design Program
- Budget Review
- Project Schedule Development
- Project Delivery Options

1-High School

## *Study Experience*

### **West Jefferson Hills School District**

*Jefferson Hills, Pennsylvania*

Contact:

Dr. Michael Ghilani  
(412) 655-8450

Year of Service: 2021

#### **Educational Planning Study:**

- Programming
- Enrollment/Capacity Analysis
- Space Utilization Study
- Cost Modeling/Budget Development
- Conceptual Design

1-Intermediate School

### **Chartiers Valley School District**

*Pittsburgh, Pennsylvania*

Contact:

Dr. Johanna Vanatta  
(412) 429-2202

Year of Service: 2021

#### **Educational Planning Study:**

- Programming
- Enrollment/Capacity Analysis
- Space Utilization Study
- Cost Modeling/Budget Development
- Conceptual Design

1-Intermediate School

## Work Plan

T&W is a firm that is dedicated to supporting the technical and facility-related needs of our K-12 public school clients. Our wide range of facility planning services allows our clients to properly assess and formulate the most optimum plan for today, as well as, for the future that lies ahead.

We have consulted with many school districts in Western Pennsylvania who have needed assistance in identifying options for the continued operation of their facilities. We have provided studies that have ranged in complexity from simple building inspections to comprehensive district-wide facility studies that analyze every detail of our clients' operations and help our clients to transform their facility portfolios and provide long-lasting solutions that improve their program and operations.

As a result of these past experiences and successes, we have developed an integrated suite of planning services that are specially designed to address the factors effecting the operations of public school districts and their facilities.

Below is a list of the services which we for this study. The following Work Plan describes in detail what each of the services entail.

### **Proposed Services:**

- 1.0 Review of the Enrollment
- 2.0 Building & System-wide Capacity Study
- 3.0 Grade-Level Grouping, Reconfiguration & Planning Study
- 4.0 Special Education Loading and Requirements



*Work Plan*

First, we want to assure you that we will not be reinventing the wheel. We will utilize as much of our previous documentation as is possible. We will build upon the information obtained and developed in past studies we performed for Warren County School District. The studies performed for Eisenhower Elementary and Sheffield Elementary in 2012, as well as the study for Warren Area High in 2014, yielded floor plans, capacity analyses and more. Since the publication of those studies, our conceptual plans have gone from design to construction and are now operational. Therefore, these past work products will be revisited and revised to reflect the actual, current conditions. Below is a simple table of what schools and what information was analyzed in past studies and can be used as a basis for this study.

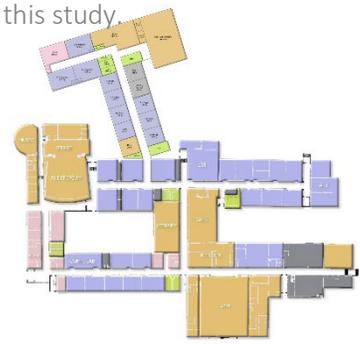
	<b>Key Plans</b>	<b>Capacity Analysis</b>
<b>Beatty-Warren Middle School</b>	C	C
<b>Eisenhower Elementary School</b>	A	A
<b>Eisenhower Middle / High School</b>	A	C
<b>Sheffield Area Elementary School</b>	A	A
<b>Sheffield Area Middle/High School</b>	A	C
<b>Warren Area Elementary Center</b>	C	C
<b>Warren Area High School</b>	B	B
<b>Youngsville Elementary / Middle School</b>	C	C
<b>Youngsville High School</b>	C	C

**Key**

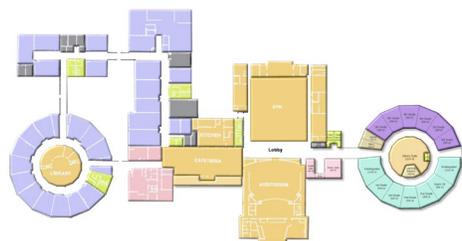
**A** - Completed as part of 2012 Educational Specifications for Eisenhower Elementary and Sheffield Elementary. These facilities to be verified and updated in this study.

**B** - Completed as part of 2014 Facilities Study for Additions/Alterations to Warren Area High School. This facility to be verified and updated in this study.

**C** - Facilities to be initially reviewed and analyzed in this study.



Eisenhower Elementary/MS/HS  
2012 Conceptual Plan by T&W



Sheffield Elementary/MS/HS  
2012 Conceptual Plan by T&W



Warren High School  
2014 Conceptual Plan by T&W

## Work Plan

### Proposed Planning Services

#### 1.0 Review of Enrollment Projections

We'll conduct a thorough review of the projections made by our partner, Davis Demographics, in the 2018 Study. Our analysis will provide accuracy statistics for the previous projections and we will add the enrollment data per grade and location for the years 2019 through 2021. We will advise the District as to any new trends observed which differ substantially from the previous forecast. If and to the extent that there are significant differences, we will provide adjustment factors for capacity planning purposes until such time that a new demographics study can be provided.

#### 2.0 Building and System-wide Capacity Study

It is not uncommon to find that facilities that have regularly operated below their optimum utilization rate have devolved to include spaces that are not required by the program. Often, such spaces only exist because they were spare or otherwise unassigned and became re-purposed on an informal basis. This somewhat *ad hoc* re-purposing of space gives the illusion that the facility is running at a higher rate of utilization than it really is. We'll identify any re-purposed space and (at least temporarily) restore the use to its intended use.

Conversely, some facilities, especially those which consistently operate above their optimum utilization rate, experience the displacement of specialized program space. These displaced spaces must rejoin the roster of spaces before the appropriate operating capacity can be set forth.

After all bona fide specialized program spaces are accounted-for in the roster of spaces, the capacity calculation is quite routine. When completed, this study will reconcile the spaces required in the building for program requirements, as well as bulk capacity requirements by grade level. The result will be a well-balanced capacity with consistent rounds and an adequate number of spare classrooms to ensure consistent loading - given the anticipated enrollment.

## Work Plan

We'll develop loading options which analyze the capacities under various loading conditions. The first loading condition will present the loading efficiency under the current districting conditions and will illustrate how the loading efficiency fluctuates and survives or fails given our enrollment forecasts. Subsequent options will be produced using our enrollment forecasts under modified districting conditions to illustrate how each facility can be both right-sized and sustainable.

### Deliverables:

- Key plans for each school with current, baseline and optimized room assignments
- Baseline Elementary Building Capacity vs Enrollment Tables  
*(Using both current and DDP projected enrollment)*
- Optimized Elementary Building Capacity Tables  
*(Using both current and DDP projected enrollment)*
- System Capacity Tables for Elementary *(Using current and DDP projected enr.)*
- Baseline Master Schedule Loading Efficiency Analysis  
*(for each High School and Middle School)*
- Optimized Secondary School Department Loading Models  
*(Optimization of the baseline conditions prior to consideration of reconfiguration options.)*

Work Plan

3.0 Grade-Level Grouping, Reconfiguration & Planning Study

This portion of the study is the culmination of all of the various analyses and brings that information together in tables, diagrams and graphs which present the following summary information for each facility in each reconfiguration option:

- district grade level configuration
- the regular program configuration
- the special program configuration
- design-capacity for each school
- anticipated loading rates

Option 3D

Split Primary and Intermediate with Three Grades per Building at IHS and SHS

Butler Area School District | Facilities Study

Existing Buildings	Broad Street		Center Avenue		Center Township		Clearfield		Connoquessing		Emily Brittain		McQuiston		Meridian		Northwest		Oakland		Summit		Total K-3		Junior High (6 Intermediate Elementary)		Total 4-6		Intermediate High School		High School		Total K-12		Current Enrollment (13-14)		Loading Rate						
	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y	Rooms	Cap'y							
K	0	0	0	0	6	240	0	0	2	80	0	0	4	160	0	0	3	120	0	0	2	80	17	680											532	78%							
1	0	0	0	0	12	240	0	0	4	80	0	0	8	160	0	0	6	120	0	0	4	80	34	680											550	81%							
2	0	0	0	0	12	240	0	0	4	80	0	0	8	160	0	0	6	120	0	0	4	80	34	680											492	72%							
3	0	0	0	0	11	220	0	0	4	80	0	0	8	160	0	0	6	120	0	0	4	80	33	660											510	77%							
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	540	20	540							523	97%							
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	540	20	540							502	93%							
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	540	20	540							510	94%							
7																																				26	689	582	84%				
8																																				27	716	601	84%				
9																																				27	716	608	85%				
10																																				0	0	21	589	22	589	569	97%
11																																					21	562	21	562	543	97%	
12																																				23	616	23	616	607	99%		
Total Rooms	0	0	0	0	41	940	0	0	14	320	0	0	28	640	0	0	21	480	0	0	14	320	118	2,700	60	1,620	60	1,620	80	2,120	66	1,767	324	8,207	####	87%							
Total Sections	0	0	0	0	47	0	0	0	16	0	0	0	32	0	0	0	24	0	0	0	0	16	0	60	1,620	60	1,620	0	0	0	0	0	0	0	0	0	0	0	0				
Spare CR's	0	0	0	0	0	0	0	0	1	20	0	0	0	0	0	0	0	0	0	0	1	20	2	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total with Spares	0	0	0	0	41	940	0	0	15	320	0	0	28	640	0	0	21	480	0	0	15	320	120	2,740	60	1,620	60	1,620	80	2,120	66	1,767	324	8,207	####	87%							

**Concept:**  
This option modifies Option 3B, by operating one additional K-3 facility at Summit. This option may offer the logistical benefit of operating a school on the eastern side of the district.

Grades K-3 Optimum Loading Rate:	77%	Okay	Grades 7-9 Optimum Loading Rate:	64%	Okay	Grade K (12-6)	40
Grades K-3 Maximum Loading Rate:	76%	Okay	Grades 7-9 Maximum Loading Rate:	76%	Okay	Grade 1-3	23
Grades 4-6 Optimum Loading Rate:	95%	Okay	Grades 10-12 Optimum Loading Rate:	97%	Okay	Grade 4-6	27
Grades 4-6 Maximum Loading Rate:	95%	Okay	Grades 10-12 Maximum Loading Rate:	88%	Okay	Grade 7-9	25.5
						Grade 10-12	26.77

The summary of each option includes a conceptual floor plan which assigns the anticipated room use for each scheduled and non-scheduled space in each building remaining in operation under the configuration option. In the event the additional spaces are required, the locations and sizes of building additions will be noted as well.

## *Work Plan*

Each option will include an analysis of the impact of the projected enrollment versus the design capacity at each school scheduled to remain in operation. This analysis will provide a forecast of the utilization rate under three different operations modes:

- 1) average section size using the design sections per grade level;
- 2) reduced or increased number of sections above or below the design to support minor year-to-year enrollment fluctuations; or,
- 3) by using adjusted section capacities.

Deliverables:

- Reconfiguration Summary Chart (Example Shown Above)
- Building Capacity Tables of Proposed Options
- Key Plans with proposed room assignments
- Listing of Re-purposed Spaces (each facility)
- Listing of Displaced Program Spaces (each facility)

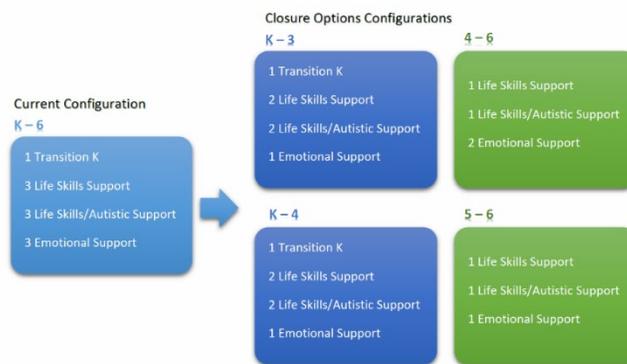
*Work Plan*

**1.0 Special Education Loading & Requirements**

We also note that it is important to differentiate between programs that are offered per-building and those that are cross-district programs. If you are going to develop alternatives for the configuration of your grade levels and/or the buildings that will continue to operate, the types and quantities of special education spaces required by-building and by-district are among the most important considerations to be given in weighing the feasibility of a reconfiguration option.

We'll work with the special education department representatives to lay-out the space utilization requirements for satisfying the districtwide needs, based on historic participation levels as well as future special education goals and initiatives. As your enrollment changes your special education needs will change as well. In any configuration, you'll need to satisfy the space needs of the special learners – before considering the best ways of improving the efficiencies of the regular education loading.

Figure 5.3 – District's Rubric for Reconfiguration Options

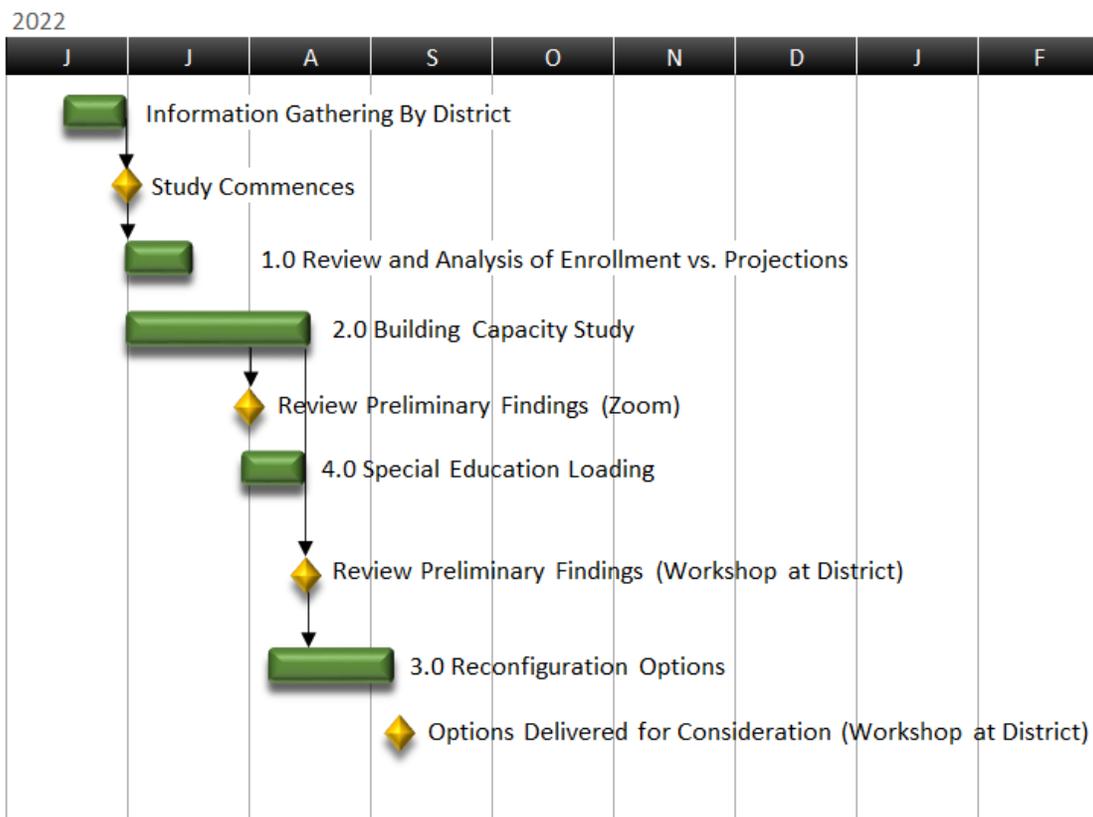


Deliverables:

- Special Education current configuration analysis
- Special Education reconfiguration charts for each option

*Work Plan*

**Proposed Schedule for the Study**



*Fee Proposal*

We propose to provide the base scope of services for the total fee of thirty-two thousand, six hundred, eighty-five dollars (**\$32,685.00**). A detailed list of services with a detailed breakdown of fees can be found in the following pages in this section.

Professional fees include all salaries, benefits, payroll expenses, our standard insurances, non-volume reproductions, software, data retention, hardware, travel as specified, mileage as specified, meals, telephone, teleconferencing charges, fax, regular mail and home office expenses.

Our rates are calculated using our standard insurance package which includes the following:

- Professional Liability: \$1,000,000.00
- General Liability: \$1,000,000.00
- Medical Insurance: \$500,000.00
- Automobile Liability: \$1,000,000.00
- Umbrella Policy: \$2,000,000.00

The following constitute reimbursable costs will be invoiced in addition to the indicated fees:

- Volume copying and reproducing
- Overnight/Express Mail
- Testing Lab Services
- Special Consultants

As always, we want you to know that our fees are completely negotiable. If it is the case that you desire to receive the services in the way that we provide them - we are not going to let a fee amount stand in the way of you retaining T&W.

**Rates**

Project Assignment	Name	Hourly Rate
Principal	Jon Thomas	\$ 225.00
Planner I	Carrie Crawford	\$ 85.00
Executive Administrator	TBD	\$ 70.00
Planner II	Katie Dedola	\$ 60.00



## Work Plan and Fee Schedule

Warren County School District | Capacity Study

The information contained in this document is the property of Thomas & Williamson, LLC. The Warren County School District board of directors and administration ("the district") is granted limited access to view this information solely for the purpose reviewing the author's recommended work plan and associated fee to conduct the proposed study. The district shall not forward, copy, transcribe or in any way duplicate this document without our prior written approval. The district shall not discuss the information contained herein with any potential competitor, advisor or consultant.

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WBS	Task/Sub-task	Qty	Totals	Principal	Planner 1	Executive Admin.	Planner 2
<b>0.0</b>	<b>Meetings</b>						
0.1	Review preliminary findings (Virtual Only)	1	\$740	\$450	\$170	\$0	\$120
0.2	Capacity Complete - workshop (On-site and virtual)	1	\$2,235	\$1,800	\$255	\$0	\$180
0.3	Review Reconfiguration Option (On-site)	1	\$1,800	\$1,800	\$0	\$0	\$0
	Subtotal Costs for 0.0 - Meetings		\$4,775	\$4,050	\$425	\$0	\$300
	Travel Expenses (\$0.625/mi.)		\$375				
	<b>Total Costs for 0.0 - Meetings &amp; Presentation</b>		<b>\$5,150</b>				
<b>1.0</b>	<b>Review of the Enrollment</b>						
1.1	Compile 2019 through 2021 actual enrollment	1	\$785	\$225	\$0	\$560	\$0
1.2	Develop variance from forecast tables and chart	1	\$900	\$900	\$0	\$0	\$0
	<b>Total Costs for 1.0 - Review of the Enrollment</b>		<b>\$1,685</b>	\$1,125	\$0	\$560	\$0
<b>2.0</b>	<b>Building Capacity Study</b>						
	<b>Analysis of Current Capacity and Optimized Capacity</b>						
2.1	Develop current elementary school keyplans	4	\$680	\$0	\$680	\$0	\$0
2.2	Develop current secondary school keyplans	5	\$1,700	\$0	\$1,700	\$0	\$0
2.3	Develop baseline elementary capacity vs loading tables	4	\$1,130	\$450	\$680	\$0	\$0
2.4	Calculate baseline secondary master schedule loading efficiency	5	\$5,850	\$2,250	\$0	\$0	\$3,600
2.5	Develop elementary school specials loading patterns	1	\$340	\$0	\$340	\$0	\$0
2.6	Develop optimized elementary school capacities	4	\$1,610	\$450	\$680	\$0	\$480
2.7	Develop district-wide elementary defragmentation chart	1	\$85	\$0	\$85	\$0	\$0
2.8	Prepare optimized elementary school keyplans	4	\$700	\$0	\$340	\$0	\$360
2.9	Develop optimized secondary school dept. models (subj. centered)	5	\$1,875	\$1,125	\$0	\$0	\$750
2.10	Prepare optimized secondary school keyplans	5	\$875	\$0	\$425	\$0	\$450
2.11	Draft, review and finalize analysis of current & optimized capacity	1	\$740	\$450	\$170	\$0	\$120
	<b>Total Costs for 2.0 - Building Capacity Study</b>		<b>\$15,585</b>	\$4,725	\$5,100	\$0	\$5,760

*Fee Proposal*

**3.0 Grade-level Grouping (Reconfiguration) & Planning Study**

**Reconfiguration Options - 3 Preliminary & 3 Final**

3.1	Prepare baseline configuration summary table (Option 0)	1	\$225	\$225	\$0	\$0	\$0
3.2	Develop preliminary reconfiguration options - keyplans	3	\$1,335	\$0	\$255	\$0	\$1,080
3.3	Develop prelim. reconfiguration options - design capacity & loading tables	3	\$1,185	\$675	\$510	\$0	\$0
3.4	Develop prelim. reconfiguration options - configuration summary tables	3	\$1,185	\$675	\$510	\$0	\$0
3.5	Finalize reconfiguration options - keyplans	3	\$615	\$0	\$255	\$0	\$360
3.6	Finalize reconfiguration options - design capacity and loading tables	3	\$1,185	\$675	\$510	\$0	\$0
3.7	Finalize reconfiguration options - configuration summary tables	3	\$1,185	\$675	\$510	\$0	\$0
<b>Total Costs for 3.0 - Reconfiguration Options</b>			<b>\$6,915</b>	<b>\$2,925</b>	<b>\$2,550</b>	<b>\$0</b>	<b>\$1,440</b>

**4.0 Special Education Loading & Space Requirements**

**Reconfiguration of Special Education Spaces (Due to Grade-level Grouping Reconfiguration)**

4.1	Develop elementary special education loading & space requirements	1	\$403	\$113	\$170	\$0	\$120
4.2	Develop secondary special education loading & space requirements	1	\$635	\$225	\$170	\$0	\$240
4.3	Compile elementary school site-specific program requirements	1	\$403	\$113	\$170	\$0	\$120
4.4	Compile secondary school site-specific program requirements	1	\$635	\$225	\$170	\$0	\$240
<b>Total Costs for 4.0 - Special Education Loading &amp; Space Requirements</b>			<b>\$2,075</b>	<b>\$675</b>	<b>\$680</b>	<b>\$0</b>	<b>\$720</b>

**5.0 Finalize Study (Later)**

5.1	Prepare Final Draft & Executive Summary	1	\$450	\$450	\$0	\$0	\$0
5.2	Outline & Prepare Presentation	1	\$685	\$225	\$340	\$0	\$120
5.3	Reproduction Coordination	1	\$140	\$0	\$0	\$140	\$0
<b>Total Costs for 5.0 - Finalize Study</b>			<b>\$1,275</b>	<b>\$675</b>	<b>\$340</b>	<b>\$140</b>	<b>\$120</b>

**Total Cost for Proposed Services:**

**\$32,685**

Total costs include three (3) hard copies of the study to be provided to the District in addition to electronic format on CD or USB drive. If the District requires additional hard copies, an expenditure cost for reproductions will be presented for approval.

## References

### Contacts



**Dr. Brian Slamecka, Assistant Superintendent of Schools:** Butler Area School District, 110 Campus Lane, Butler, PA 16001, Phone: (724) 214-3106, Email: brian\_slamecka@butler.k12.pa.us, Project: Districtwide Facility Study 2014.



**Dr. Patrick Mannarino, Superintendent:** North Hills School District, 135 Sixth Avenue, Pittsburgh, PA 15229, Phone: (412) 318-1004, Email: mannarinop@nhsd.net, 10 Projects since 2004 including: Ross ES, McIntyre ES, Highcliff ES, West View ES, Middle School and High School.



**Dr. Norbert Kennerknecht, Former Director Facilities Management & Planning:** Palm Cost, FL Phone: (814) 688-5854, Email: kennerknechtn@wcsdpa.org, Client since 1998, Districtwide Studies and individual project EdSpecs.



**Mr. Xavier Botana, Superintendent:** Portland Public Schools, 353 Cumberland Ave., Portland, ME 04101, Phone: (207) 874-8100, Email: botanx@portlandschools.org, Project: Districtwide Enrollment and Capacity Studies.



**Dr. Lawrence Bozzomo, Former Superintendent:** North Allegheny School District and Manhasset UFSD, 3 Cornerstone Court, Doylestown, PA 18901, Phone: (267) 261-4360, Email: bozzlar@yahoo.com, Projects: One high school and five elementary schools at NASD, Facilities Master Plan at Manhasset UFSD. Client since 1995.



**Dr. William Pettigrew, Former Superintendent and Former School Board Director:** Mars Area School District, 106 Chancellor Court, Mars, PA 16046, Phone: (724) 679-1596, Email: grewdr@hotmail.com, Projects: Nine projects since 2002, including Centennial School, Mars Elementary, High School Auditorium, High School Additions and Alterations, District Administrative Offices and Districtwide Facility Study.

## References



**Mr. Breitkreutz, Director of Ancillary Services:** Fox Chapel Area School District, 611 Field Club Road, Pittsburgh, PA 15238, Phone: (412) 967-2474, Email: Daniel\_Breitkreutz@fcasd.edu, Projects: New Kerr ES Planning Study & Districtwide Facility Study.



**Dr. Brian Miller, Superintendent:** Pine-Richland School District, 702 Warrendale Road, Gibsonia, PA 15004, Phone: (724) 625-7773, Fax: (724) 625-1490, Email: brmiller@pinerichland.org, Projects: Demographics & Enrollment Study and Carson and Ingomar Middle Schools (at North Allegheny School District).



**Dr. Michael Ghilani, Superintendent:** West Jefferson Hills School District, 835 Old Clairton Road, Clairton, PA 15025, Phone: (412) 655-8450, Email: mghilani@wjhsd.net, Projects: Demographics & Building Capacity Study and Educational Planning Study for Jefferson Hills Intermediate School.



**Mr. Ken Fibbi, Director Buildings & Grounds:** West Allegheny School District, 110 Bruno Lane, Imperial, PA 15126, Phone: (724) 695-5223, Email: kfibbi@westasd.org, Projects: McKee ES, Wilson ES, Demographics & Enrollment Study & WAHS Science Labs Study and WAMS Educational Facility Planning.



**Dr. Johannah Vanatta, Superintendent:** Chartiers Valley School District, 2030 Swallow Hill Road, Pittsburgh, PA 15220, Phone: (412) 429-2201, Email: jvanatta@cvsd.net, Projects: Chartiers Valley Intermediate School Educational Planning Study.



**Dr. Tammy Andreyko, Superintendent:** Quaker Valley School District, 100 Leetsdale Industrial Drive, Ste. B, Leetsdale, PA 15056, Phone: (412) 749-3600, Email: andreykot@qvsd.org, Projects: Quaker Valley High School Pre-Design Finalization Study.