Special Board of Education Meeting
Monday, June 10, 2019 6:30 PM

Boone Central Middle School Library
203 Widaman
Petersburg, NE 68652

Agenda

1. Open the Meeting - Call to Order
2. Welcome Guests
3. Presentation of Feasibility Study
4. Public Comment
5. Adjournment

A Cost-Benefit Analysis of Options for Boone Central Middle School: Albion or Petersburg?

Prepared for:
Boone Central School District
June 7, 2019

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A VETERAN OWNED ORGANIZATION

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Preface

A Cost-Benefit Analysis of Options for Boone Central Middle School: Albion or Petersburg?

Introduction

The Boone Central School District is faced with a significant issue regarding the best use of taxpayer funds for the education of middle school students in the county. Currently, the Boone Central Middle School in Petersburg, Nebraska is in need of significant renovations that, if not addressed, could undermine the education of the students, and the economic welfare of taxpayers in the county.

Instead of renovating the current Middle School, the Boone Central School District could decide that the best alternative for taxpayers, students, school staff, and teachers would be to close the Petersburg facility, and open an alternative site in Albion, Nebraska.

The subsequent study completed by Goss and Associates, Economic Solutions provides the Boone Central School District with economic cost analysis of the three scenarios developed by Wilkins Architecture Design Planning (Wilkins ADP) in consultation with the Boone Central School District.

Any errors, omissions or misstatements are solely the responsibility of Goss & Associates. Please address all correspondence to:

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Goss & Associates

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This study was completed independent of Creighton University. As such, Creighton University bears no responsibility for findings or statements by Ernie Goss, or Goss & Associates, Economic Solutions.

Glossary

Definition of Terms	
Definition of terms	**Definition**
Albion Option A	Design concept Feb. 18, 2019 by Wilkins Architecture Design Planning for middle school located in the Albion Community. 16,038 SF with a cost of $3,959,180 (includes $42,000 for demolition of Petersburg building).
Albion Option B	Design concept Feb. 18, 2019 by Wilkins Architecture Design Planning for middle school located in the Albion Community. 13,454 SF with a cost of $3,360,570 (includes $42,000 for demolition of Petersburg building).
BCMS	Boone Central Middle School.
BCSD	Boone Central School District.
Current dollars	Dollars for the relevant year (e.g. not discounted).
Discount rate	Rate used to convert dollar estimates to 2019 values.
Present value	2019 dollars.
Rebuild at Petersburg	Because of travel and other costs, the rebuilding at Petersburg was more expensive and was not separately used for comparison in this study.
Refurbishment Option	Design concept Feb. 18, 2019 by Wilkins Architecture Design Planning for refurbishment of current Petersburg middle school building. 41,727 SF with a cost of $3,475,180.

Executive Summary

Major Findings of Study[1]: This study concludes that building a middle school in Albion is the most cost-effective option for Boone Central School District. Compared to the current Petersburg facility, Albion option A produces a yearly savings of approximately $145 thousand in transportation costs, more than $107 thousand in utilities and maintenance cost savings, and greater than $221 thousand in staffing cost savings. Yearly savings for the Albion Option B is identical to Option A, except for an additional $118 thousand savings in utilities and maintenance.

For the 20-year period, 2019-38, Albion Option B provides the greatest economic savings of $6.8 million compared to a lower $6.6 million for Albion Option A, and $55 thousand for the Refurbishment Option. Over the period 2019-38, the Albion Option B net of lease payments generates a net return of $5.3 million for the Boone Central School District compared to a lower $4.9 million for Albion Option A, and a minus $1.4 million for the Refurbishment Option.

I . Enrollment projections

A. It is projected that between 2017 and 2025,
   - The annual compound growth rate in ***total population***:
     - Is expected to be -0.4 percent for Albion.
     - Is expected to be -3.1 percent for Petersburg.
   - The annual compound growth rate in individuals under age 19:
     - Is expected to be +0.2 percent for Albion.
     - Is expected to be -6.5 percent for Petersburg.
   - The annual compound growth rate in middle school age individuals:
     - Is expected to be -0.8 percent for Albion.
     - Is expected to be -3.5 percent for Petersburg.

B. Projected middle school students in 2025:
   - Approximately 98 middle school age students will reside in Albion.
   - Approximately 10 middle school age students will reside in Petersburg.

II. Cost of Construction

A. **Option A** (16,038 square feet Middle school addition in Albion): $3,959,217 costs (includes $42,000 for demolition of Petersburg building).

B. **Option B** (13,454 square feet middle school addition in Albion): $3,360,570 costs (includes $42,000 for demolition of Petersburg building).

C. **Refurbishment** of Petersburg building and equipment ($3,475,180 costs).

[1]Unless stated otherwise, all financial data are in 2019 dollars. All savings are relative to the status quo, or no change.

Executive Summary

III. Transportation Cost Savings[2]

A. Currently 118 students attend Boone Central Middle School.

- 107 of the students are from Albion (or vicinity).
- 11 of the students are from Petersburg (or vicinity).

B. If BCMS is located at Albion.

- Annual bus operating costs (including depreciation) of $11,705.
- Annual student hours spent commuting 962, with an estimated cost of $4,329.
- Total annual community costs of $22,757.

C. If BCMS is located at Petersburg.

- Annual bus operating costs (including depreciation) of $35,115.
- Annual student hours spent commuting 9,362.
- Total annual community commuting costs of $167,682.

Total annual transportation cost savings if BCMS located at Albion equals $167,682, or $2,576,357 in 2019 dollars over a 20-year period (includes bus driver costs).

IV. Utility and Maintenance Cost Savings[3]

A. In 2018, the BCMS building cost:

- $29,187 in utilities expenditures.
- $142,385 in maintenance costs.
- $2,348,689 present value utilities and maintenance costs over the next 20 years.

B. Refurbished, the BCMS building cost: would have cost (2019 dollars):

- $25,166 in utilities outlays.
- $142,385 in maintenance spending.
- This represents a $2,293,651 present value for utilities and maintenance costs over the next 20 years, representing a present value savings to the district of $55,038 over the current building.

C. If Albion Option A is constructed, it woud cost:

- $9,673 in utilities spending.
- $54,726 in maintenance costs.
- $64399 annually for utilities and maintenance combined.
- This represents a present value savings to the district of $1,467,117 over the 2019-38 time period.

[2]Transportation cost savings include costs savings to the residents in the BCSD that may not be realized by a reduction in expenses to the operating budget of the school district (e.g. commuting costs of students).
[3]Unless stated otherwise, all estimates are in 2019 dollars.

Executive Summary

D. If Albion Option B is constructed, it would cost:

- $8,114 in utilities spending.
- $45,909 in maintenance costs.
- $54,023 annually for utilities and maintenance combined.
- This represents a present value savings to the district of $1,467,113 over the 2019-38 time period.

V. Staff Savings[4]

A. With regard to the moving of BCMS to Albion, a number of cost savings can be realized immediately through staffing consolidations, efficiencies and reduction.

- Consolidation, efficiencies, and reduction resulting in an immediate cost savings of $358,602 per year.
- Potential costs savings realized over time via attrition. For the purpose of this study however, only immediate cost savings are reflected.
- Immediate realization of staff savings through staffing consolidations, efficiencies and reduction, determined by considering square footage, specific existing space to be utilized by all students, and consolidation of staff. Due to the potential of work disruptions, specific details pertaining to staffing changes are not described in this study.

B. Additional savings realized by reducing the full time equivalency of some staff members. Such cost savings, likely to be achieved via attrition, were not considered at the time of the study.

VI. Summary of Cost and Benefits from Three Options

Table X1: Net benefits for three options, 2019-38

	Savings for 20-year period (discounted to present value)		
	Refurbishment (Petersburg)	Option A (Albion)	Option B (Albion)
Transportation costs	$0	$2,576,357	$2,576,357
Utilities & maintenance	$55,038	$1,467,113	$1,609,149
Staff savings	$0	$3,225,708	$3,225,708
Total savings	$55,038	$7,269,178	$7,411,214

Source: Goss & Associates. Note: All estimates stated in 2019 dollars using a discount rate of 4.5 percent.

[4]Information was provided by Superintendent Nicole Hardwick.

Section 1: Population and Enrollment

Introduction

There are many factors to consider when choosing to move a school, or to refurbish at the current location. Among these are cost to move, changes to commuting patterns, proximity to students, and likely future enrollment.

In this section, to determine the feasibility of relocating Boone Central Middle School from Petersburg to Albion, or refurbishing the current Petersburg facility, this study examines the differential populations in student-aged people in the two towns, and the differential enrollment of the two schools across a number of years.

As well as relative population analysis, the study explores the likely population outcomes for both Albion and Petersburg through 2050. This is essential to determine the capacity of the refurbished middle school in Petersburg, or the new building in Albion.

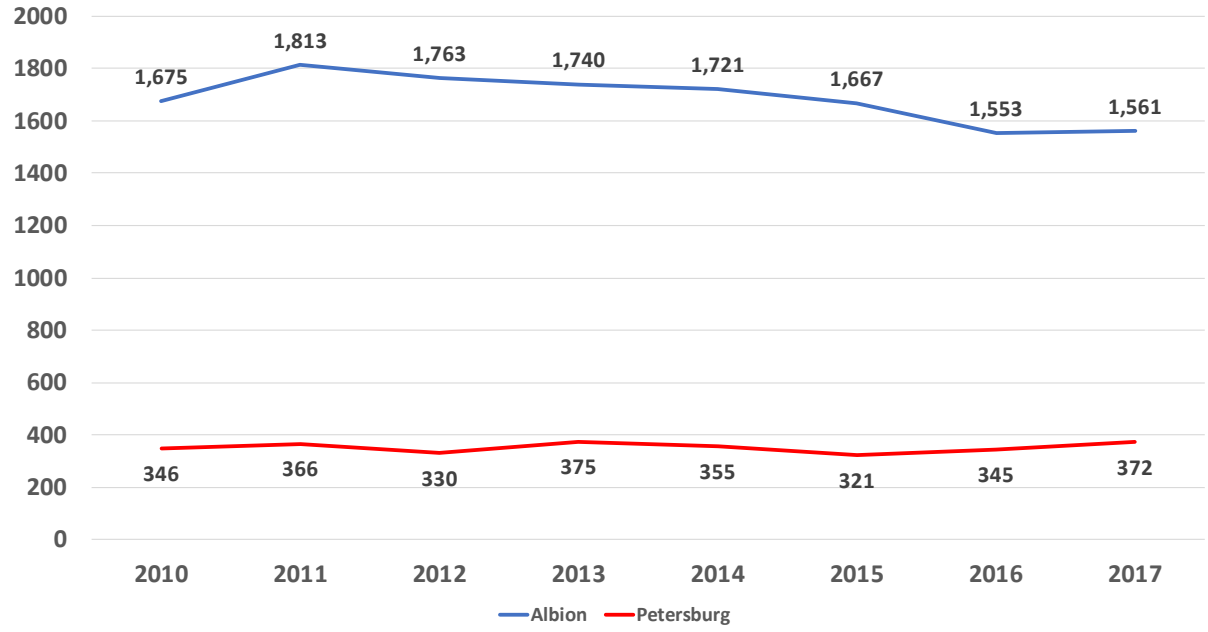
Additionally, knowledge of projected future demographics can help generate farsighted policy-making and is thereby a benefit for residents of Albion and Petersburg.

To produce projected population and student enrollments, the present study uses a 2015 report by Deichert and Drozd entitled "Nebraska County Population Projections: 2010 to 2050," and data from the Census Bureau. From these two sources, the study produces projections.

Populations, 2010-17

Figure 1.1 profiles the populations of Albion and Petersburg from 2010 to 2017. As indicated, Petersburg's population expanded by 7.5 percent while Albion's population declined by 6.8 percent during the time period. Although overall population estimates are useful, central to this study is the growth in the school age population.

Figure 1.1: Total Albion and Petersburg population, 2010-17

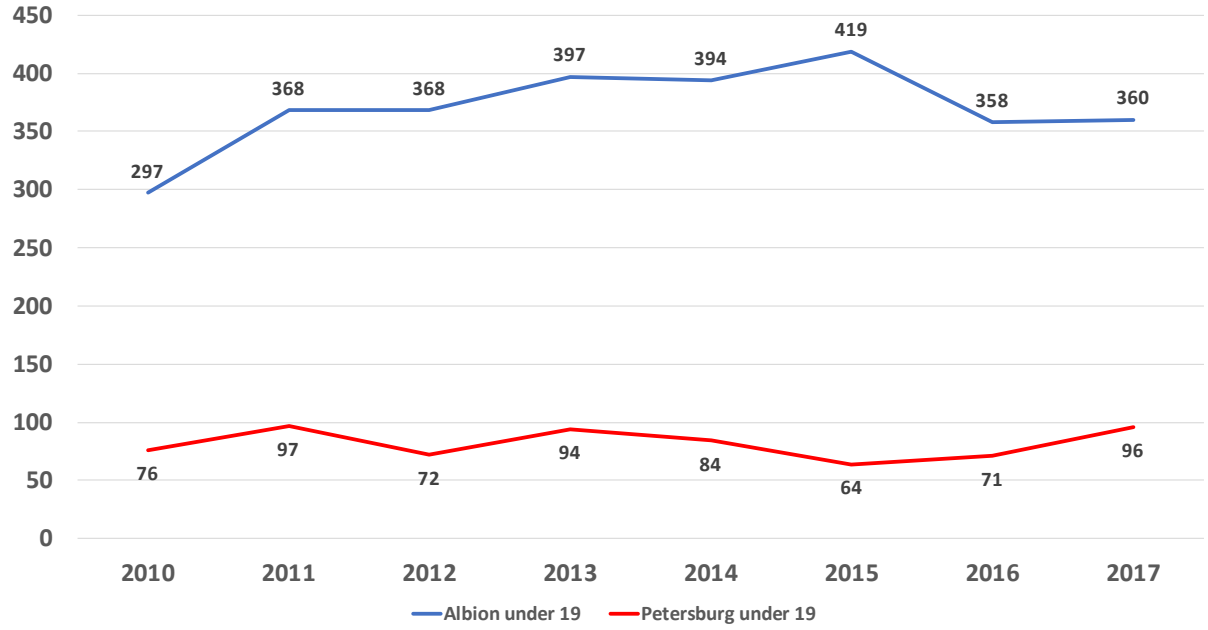


Source: Goss & Associates estimates based on U.S. Census data.

As a first step, note the population under age 19 in the two communities to determine the number of school-age children. Population in age groups does not correspond directly to public school enrollment, because there is a private school, St. Michael's School in Albion, which has approximately 130 K-8th grade students[5], including middle school students.

As profiled in Figure 1.2 below, Albion's population under age 19 varied from 297 to 360 over the time period, which is a gap of 21.2 percent. Petersburg's under age 19 population expanded from 76 to 96, a gap of almost 26.3 percent. In 2017, Petersburg's population under age 19 was almost 27 percent the size of Albion's population under age 19. Therefore, although Albion has significantly more people under age 19 than Petersburg, this difference is slightly smaller when comparing the entire populations of the two towns.

Figure 1.2: Population under age 19 in Albion and Petersburg, 2010-17



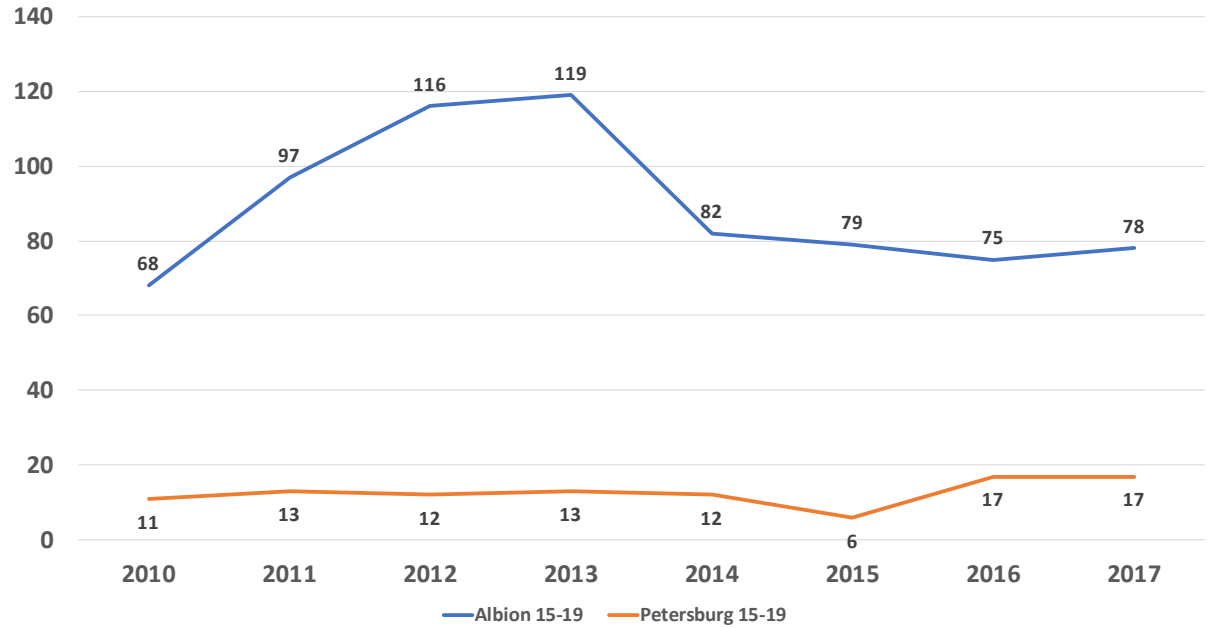
Source: Goss & Associates estimates based on U.S. Census data.

[5]http://www.stmichael.esu7.org/

The age 15-19 population approximately represents high school aged individuals, most of whom presumably would be in school, recently graduated, or dropped out of school in order to enter the work force. This age group is also a good representation of the size of the 10-14 age, or middle school, group five years earlier.

According to Figure 1.3 below, Albion's age 15-19 population increased from 68 to 78 over the time period, which is a 15.3 percent gain. Petersburg's age 15-19 population expanded from 11 to 17, a 54.5 percent expansion. In 2017, Petersburg's 15-19 population was almost 22 percent the size of Albion's age 15-19 population. This indicates that the difference in middle school enrollment has been greater than the difference in overall population in 2015 and earlier, although the difference has been even greater in 2011 and 2010.

Figure 1.3: Populations age 15-19, Albion and Petersburg, 2010-17

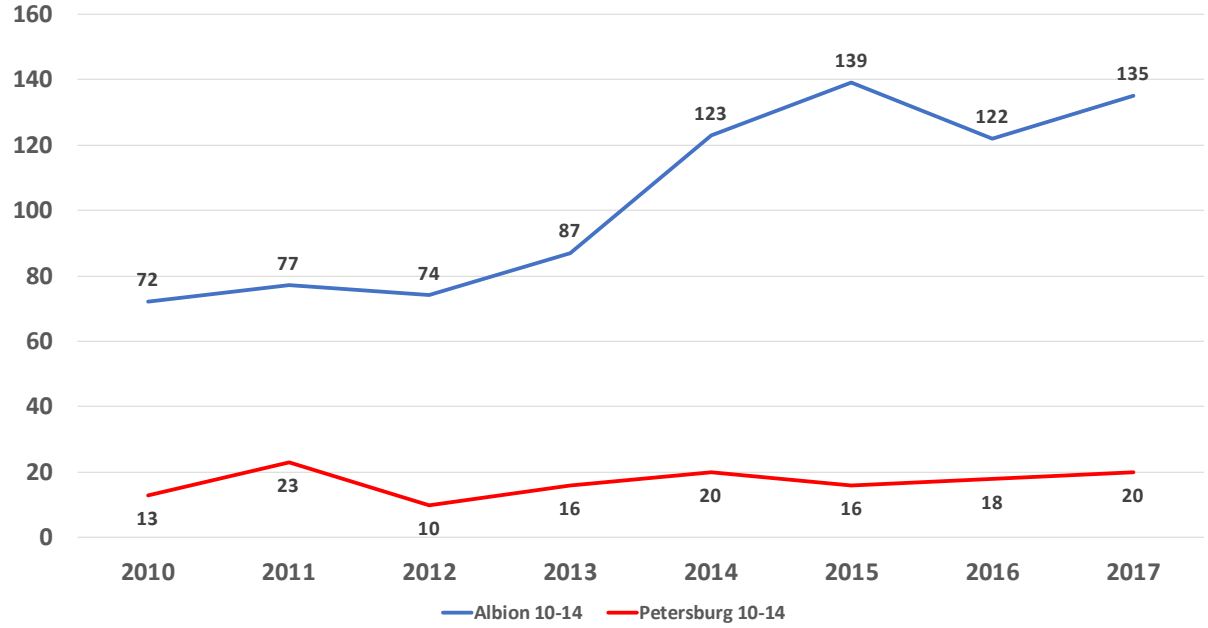


Source: Goss & Associates estimates based on U.S. Census data.

Figure 1.4 below shows that Albion's age 10-14 population expanded from 72 to 135 over the time period, a compound annual growth rate of 3.8 percent.

Also shown is an expansion of Petersburg's age 10-14 population from 13 to 20, a 2.6 percent compound annual growth rate.

Figure 1.4: Populations age 10-14 (middle school), Albion and Petersburg, 2010-17

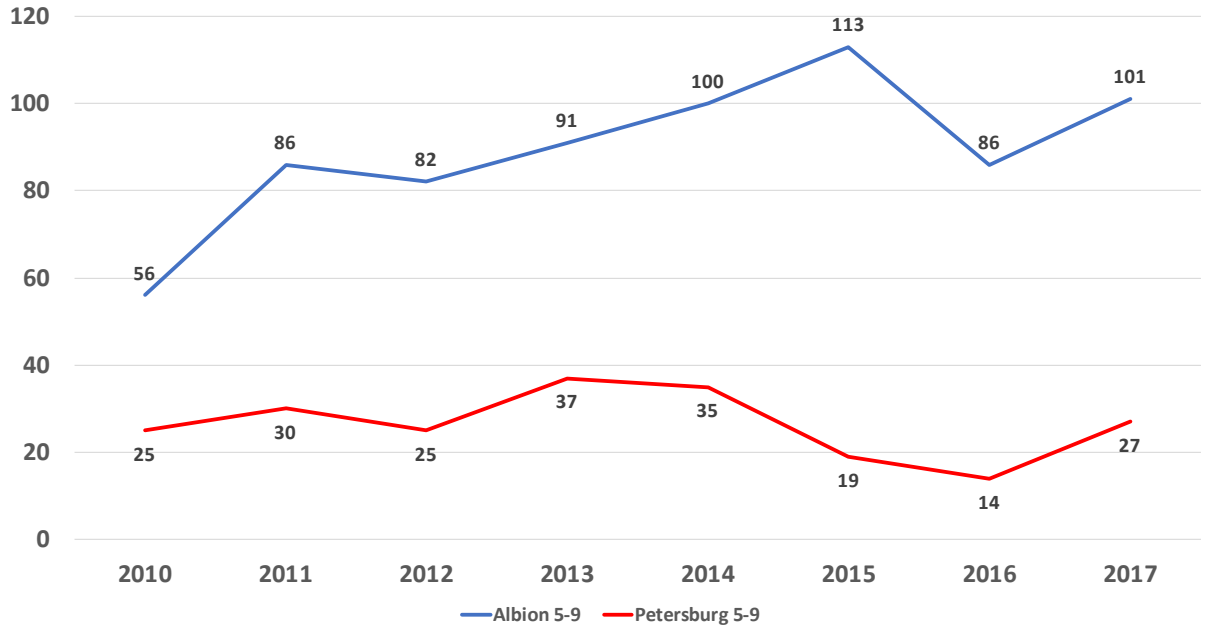


Source: Goss & Associates estimates based on U.S. Census data.

Albion's age 5-9 population, shown in Figure 1.5, roughly corresponds to the population in elementary schools. After 5 years, this group will become the middle school group, from age 10 to 14 years of age coming into and just exiting middle school. If this population cohort remains the same from 2017 to 2022, it becomes the 2022 cohort of middle school students, and can thus be compared to the 2017 cohort of middle school students.

So, although the 2017 middle school cohort has Petersburg at 14.8 percent, the size of Albion by enrollment, the 2022 cohort, has Petersburg at 26.7 percent the size of Albion, which narrows the difference somewhat as seen in Figure 1.5 below.

Figure 1.5: Populations, age 5-9, Albion and Petersburg, 2010-2017



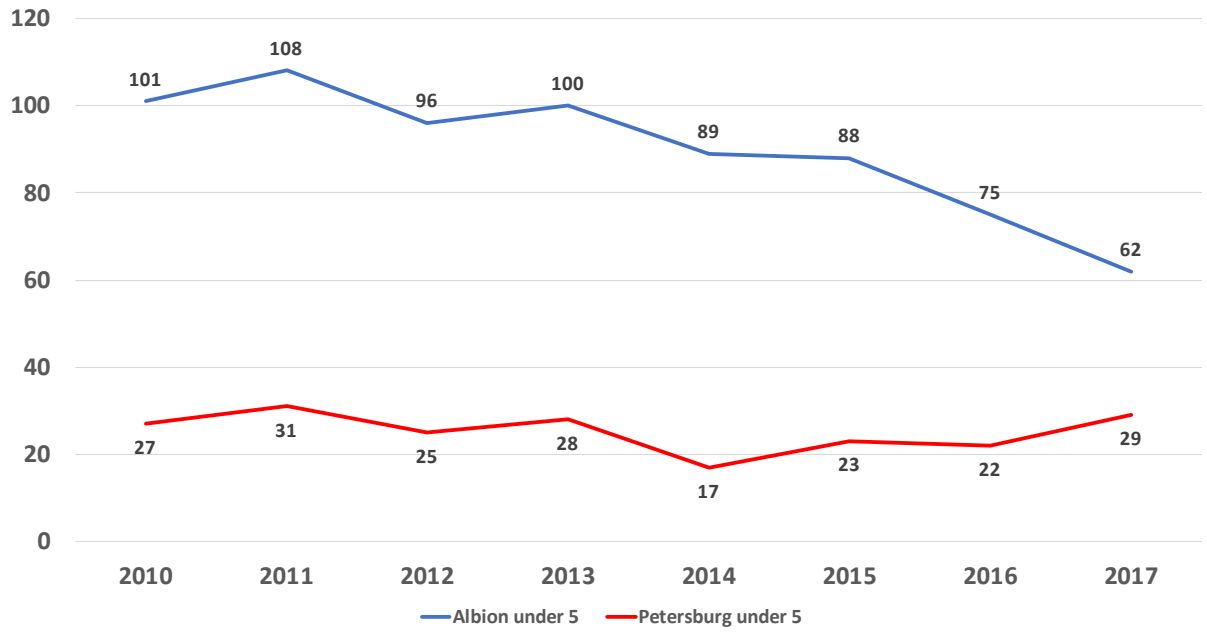
Source: Goss & Associates estimates based on U.S. Census data.

So, although the 2017 middle school cohort has Petersburg at 14.8 percent, the size of Albion by enrollment, the 2022 cohort, has Petersburg at 26.7 percent the size of Albion, which narrows the difference somewhat as seen in Figure 1.5

The under age 5 category would roughly represent the 2027 cohort of middle school enrollees, as shown in Figure 1.6 below.

Figure 1.6 profiles the trend in the population of the Albion and Petersburg areas under age 5 between 2010 and 2017. In 2017, Petersburg's under age 5 population was 46.8 percent of of Albion's under age 5. This Petersburg age cohort represents the largest in 2017 relative to Albion.

Figure 1.6: Populations age under 5, Albion and Petersburg, 2010-2017



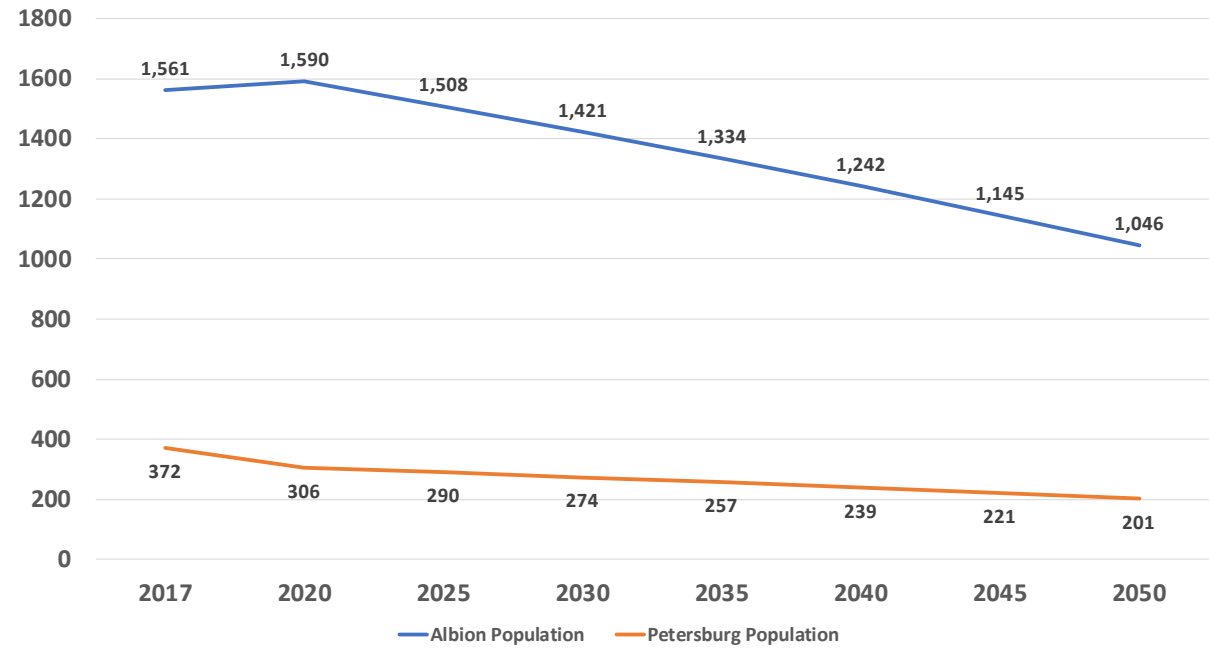
Source: Goss & Associates estimates based on U.S. Census data.

In 2017, Petersburg's under age 5 population was 46.8 percent of that of Albion's under age 5. This age cohort represents the largest in 2017 relative to Albion.

Population Projections, 2017-2050

First, the study determined the overall population demographic in Albion and Petersburg, assuming that the population growth rates each match that of the county. Figure 1.7 below provides a projection of the overall population of Albion and Petersburg from 2017 to 2050.

Figure 1.7: Projected Albion and Petersburg population, 2017-2050



Source: Goss & Associates estimates based on U.S. Census data and UNO Center for Public Affairs Research.

As indicated above, Albion's projected population decreased from 1,561 to 1,046, a 33.0 percent reduction, from 2017 to 2050, while Petersburg's projected population declined from 372 to 201, representing a 46.0 percent decrease during the same period of time.

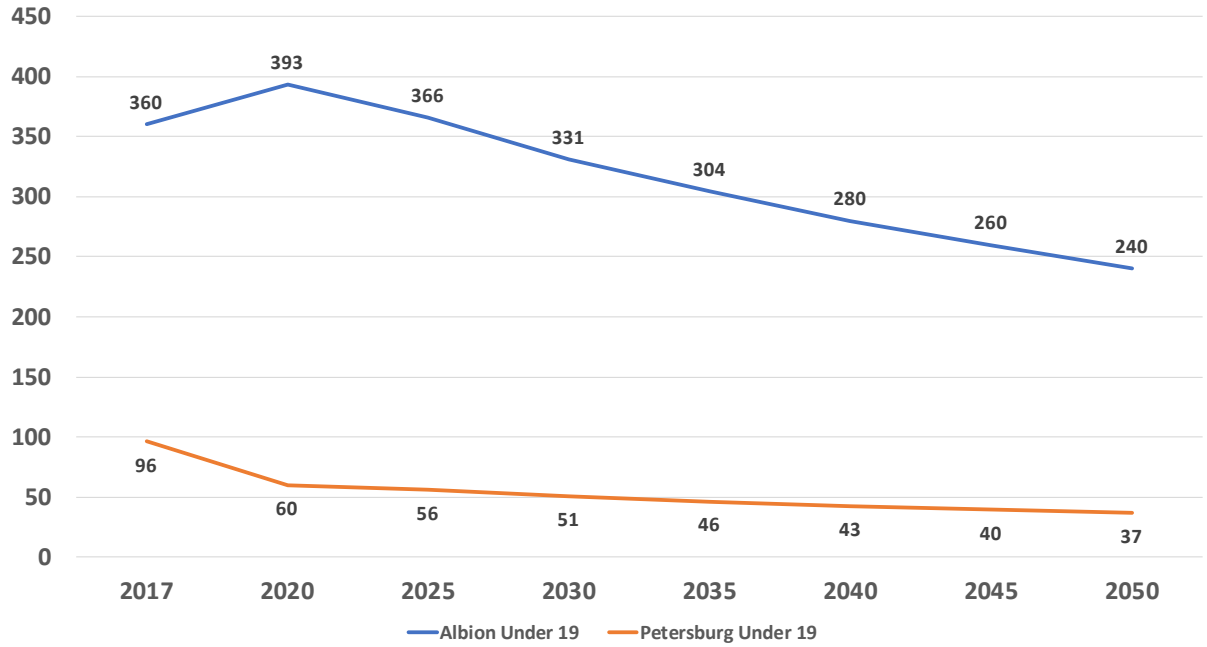
Although the projected change in the overall population is significant. Even more important is the change in other, more specific categories of population related to school enrollment.

Albion's projected population decreased from 1,561 to 1,046, a 33.0 percent reduction, from 2017 to 2050, while Petersburg's projected population declined from 372 to 201, representing a 46.0 percent decrease during the same period of time.

Of central importance is the projection of the under age 19 population through 2050. As demonstrated in Figure 1.8, the population under age 19 in Albion is projected to decrease from 360 in 2017 to 240 in 2050, a 33.3 percent decline.

Correspondingly, the population under age 19 in Petersburg is projected to decrease from 96 to 37, representing a 61.5 percent decline from 2017 to 2050.

Figure 1.8: Projected population under age 19, Albion and Petersburg, 2017-50

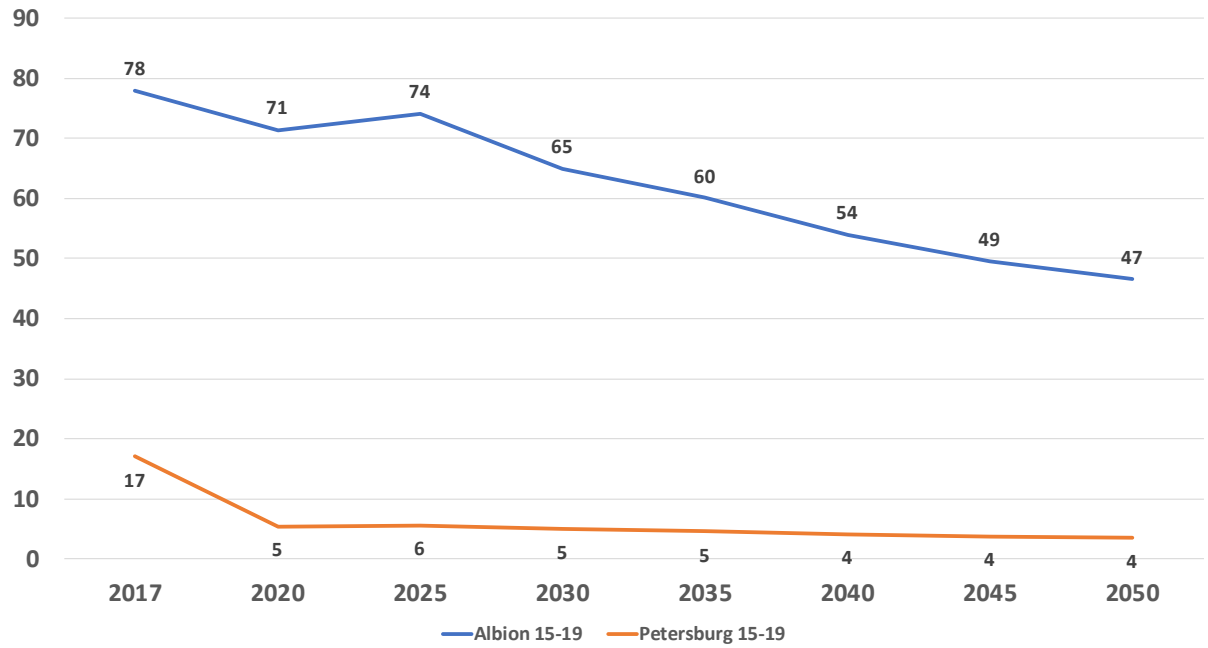


Source: Goss & Associates calculations based on Deichert and Drozd (2015) projections. data.

Per Figure 1.9 below, Albion's projected age 15-19 population decreased from 78 to 47 between 2017 and 2050, a reduction of 39.7 percent. Correspondingly, and more dramatically, Petersburg's projected age 15-19 population decreased from 17 in 2017 to 4 in 2050, a reduction of 76.5 percent.

These numbers indicate that the current location of high school education facilities in Albion is optimal, as Petersburg's 15-19 population as a percentage of Albion's decreases from 21.8 percent to just 8.5 percent of population in that age group.

Figure 1.9: Projected population age 15 to 19, Albion and Petersburg, 2017-50



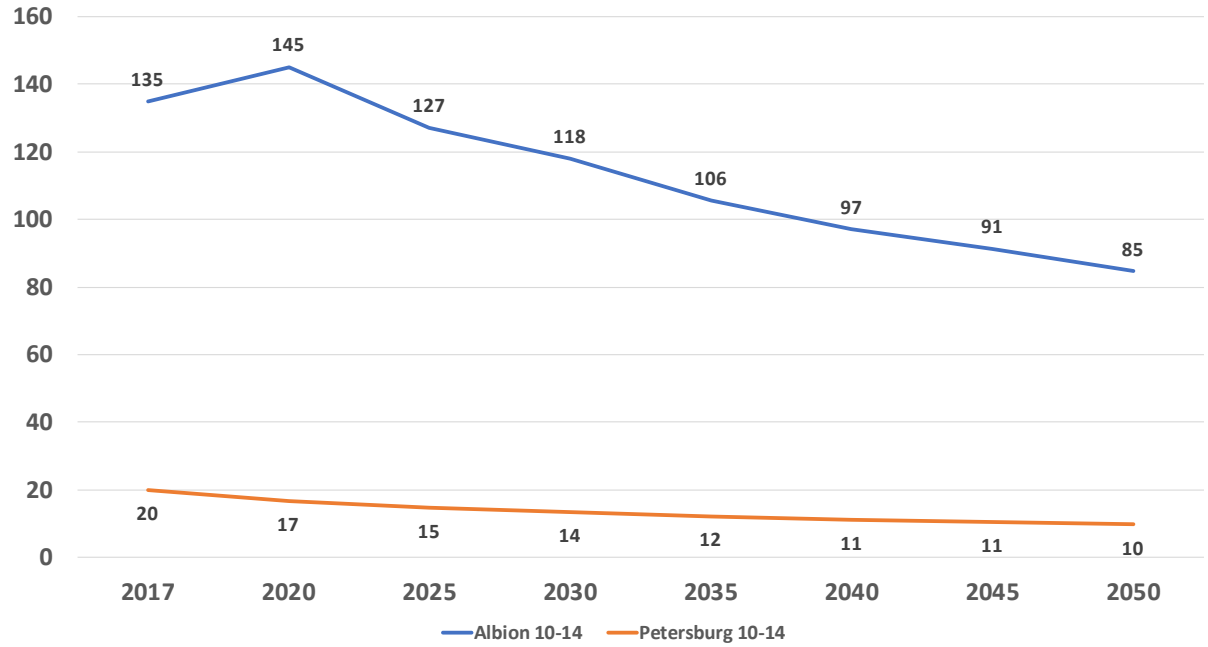
Source: Goss & Associates estimates based on U.S. Census data and UNO Center for Public Affairs Research.

Figure 1.10 below shows that Albion's 10-14 projected population dropped from 135 to 85 between 2017 and 2050, which is a 37.0 percent decline. Petersburg's 10-14 age bracket projected population fell from 20 to 10, a 50.0 percent difference. In 2017, Petersburg's age 10-14 population was 21.8 percent the size of Albion's age 10-14 population, but fell to 11.8 percent in 2050.

Figure 1.10 approximately tracks the population of middle schoolers, those who have just graduated from middle school, and those who are about to enter middle school between in 2017 and 2050.

Data in Figure 1.10 indicate that the share of middle-school age students living in Petersburg versus Albion is projected to fall from 12.9 percent in 2017 to 10.6 percent in 2030.[6]

Figure 1.10: Projected population age 10-14, Albion and Petersburg, 2017-50



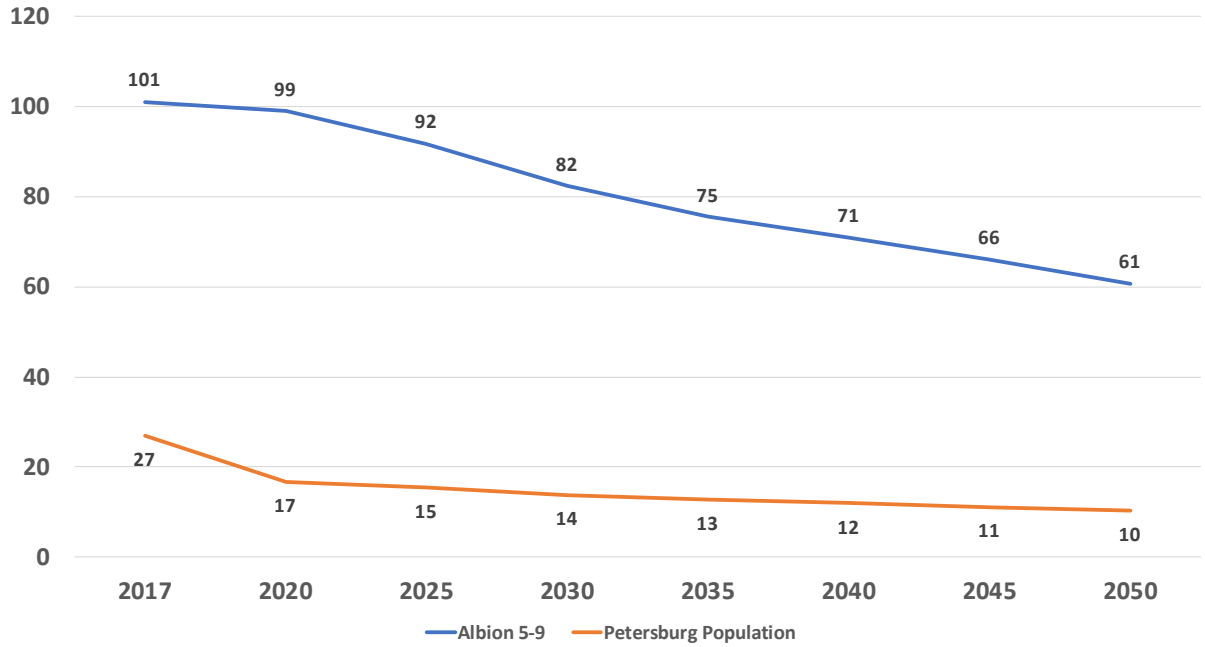
Source: Goss & Associates estimates based on U.S. Census data and UNO Center for Public Affairs Research.

Data in indicate that the share of middle-school age students living in Petersburg versus Albion is projected to fall from 12.9 percent in 2017 to 10.6 percent in 2030.

[6]These data do not match the actual public Boone Central Middle School enrollments since some will attend private school and the age break down does not necessarily match the actual age brackets of students

Figure 1.11 below shows that Albion's projected population between the ages of 5 and 9 decreased from 101 to 61 between 2017 and 2050, which is a 37.0 percent drop. Petersburg's age 5-9 projected population fell from 27 to 10, a 63.0 percent decrease. In 2017, Petersburg's 5-9 population was 26.7 percent the size of Albion's similarly-aged population, but sank to 17.2 percent in 2030. This age group roughly corresponds to the population in elementary schools. After five years, this group will become the same as the 10-14 age group, with the 10 year olds and 14 year olds coming into and just exiting middle school.

Figure 1.11: Projected population age 5 to 9, Albion and Petersburg, 2017-50



Source: Goss & Associates estimates based on U.S. Census data and UNO Center for Public Affairs Research.

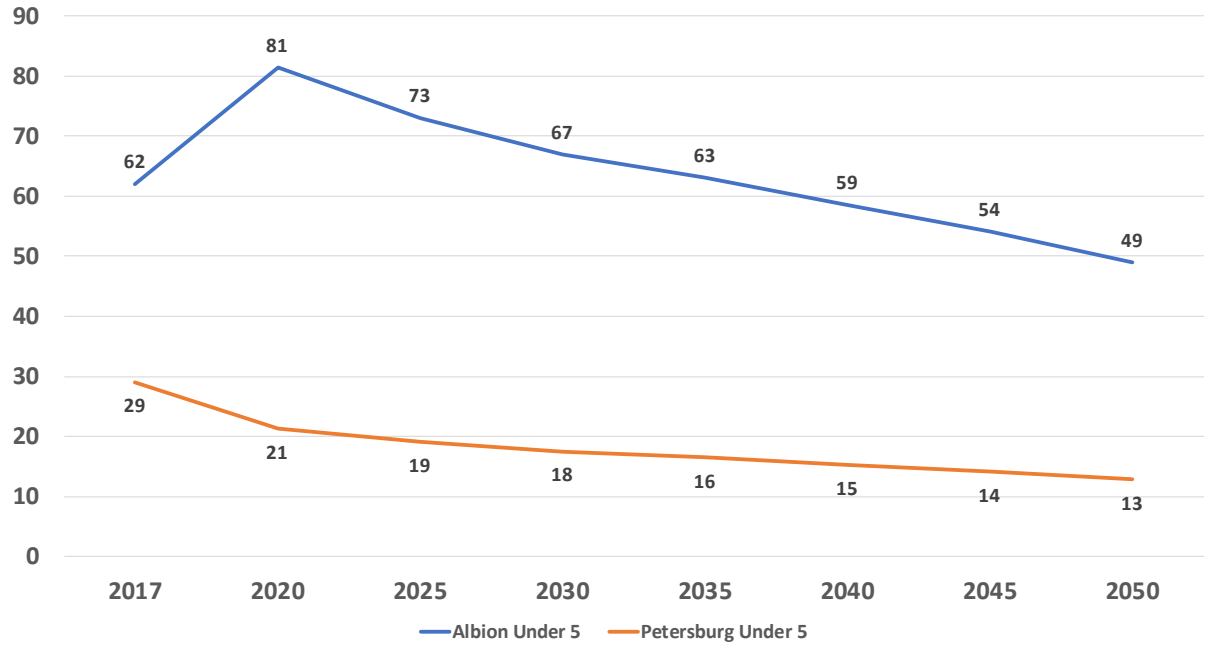
Policy-wise, this means that middle school enrollment will likely decrease over time, rather than the other way around, and it may be wise to build the new building to accomodate declining enrollments. Additionally, population trends and current enrollment, support the location of a school building in Albion.

However, the trend in middle school enrollment is downward. Additionally, population trends, and current enrollment, support the location of a middle school building in Albion.

Figure 1.12 shows a decrease in Albion's projected population under age 5 from 62 to 49 between 2017 and 2050, a 21.0 percent decrease. Petersburg's projected population under age 5 declined from 29 to 13, a 55.2 percent drop during the same time period.

In 2017, Petersburg's under age 5 population was 46.8 percent the size of Albion's similarly aged population. This is the highest relative proportion between Albion and Petersburg of all young age groups. This age group roughly corresponds to the population in elementary schools in the years ahead.

Figure 1.12: Projected population under age 5, Albion and Petersburg, 2017-50

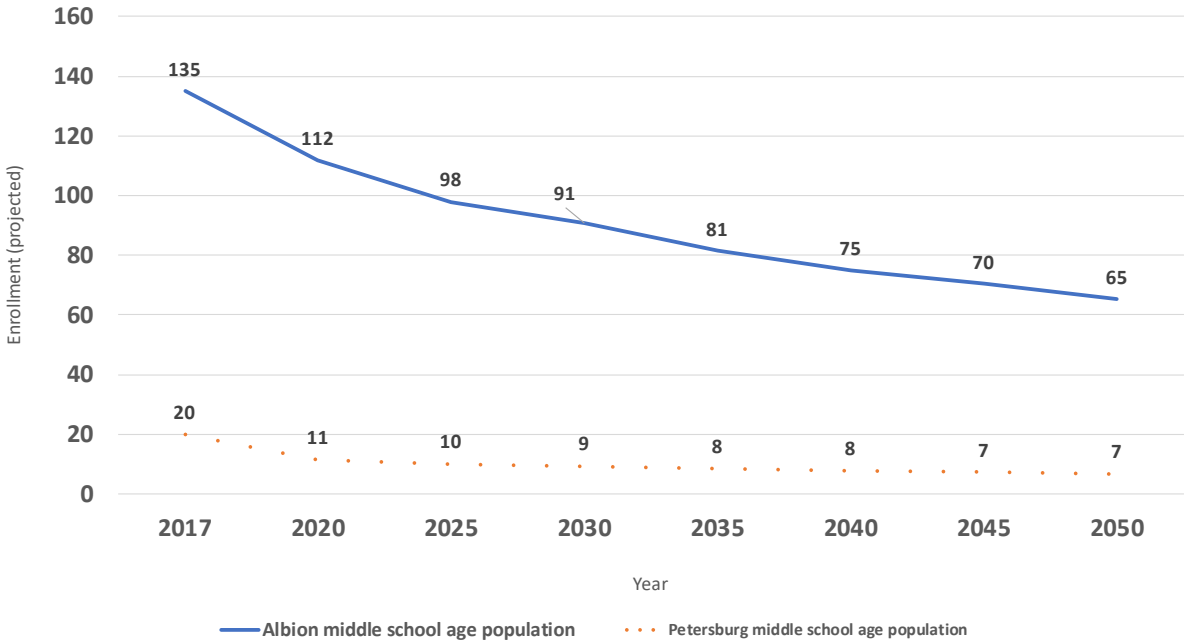


Source: Goss & Associates estimates based on U.S. Census data and UNO Center for Public Affairs Research.

In 2017, Petersburg's under age 5 population was 46.8 percent the size of Albion's similarly aged population. This is the highest relative proportion between Albion and Petersburg of all young age groups.

Figure 1.13 using current enrollment data from Boone Central Middle school, projects the likely path of enrollment, assuming enrollment changes with forward-looking county-level population projections. Because the most recent census data was collected in 2017, the study takes current enrollment to be the same as 2017 enrollment and, using that number, projects with growth rates from Deichert and Drozd using their projections through 2050.

Figure 1.13: Projected population middle school age population, Albion and Petersburg, 2017-50



Source: Goss & Associates estimates based on U.S. Census data and UNO Center for Public Affairs Research.

Summary

It is projected that between 2017 and 2025, the annual compound growth rate in total population is expected to be a minus 0.4 percent for Albion, and a minus 3.1 percent for Petersburg. The annual compound growth rate in middle school age students is expected to be a minus 0.8 percent for Albion, and a minus 3.5 percent for Petersburg. In 2025, it is projected that Albion and Petersburg will have a total of 108 middle school students, with 98 residing in Albion and 10 in Petersburg.

In 2025, it is projected that Albion and Petersburg will have a total of 108 middle school students, with 98 living in Albion and 10 residing in Petersburg.

Section 2: Financial Profile of Boone County School Districts

Another important factor to consider in the BCMS (Boone Central Middle School) question is how the school's and district's finances and performance compare to other, similar school districts.[7]

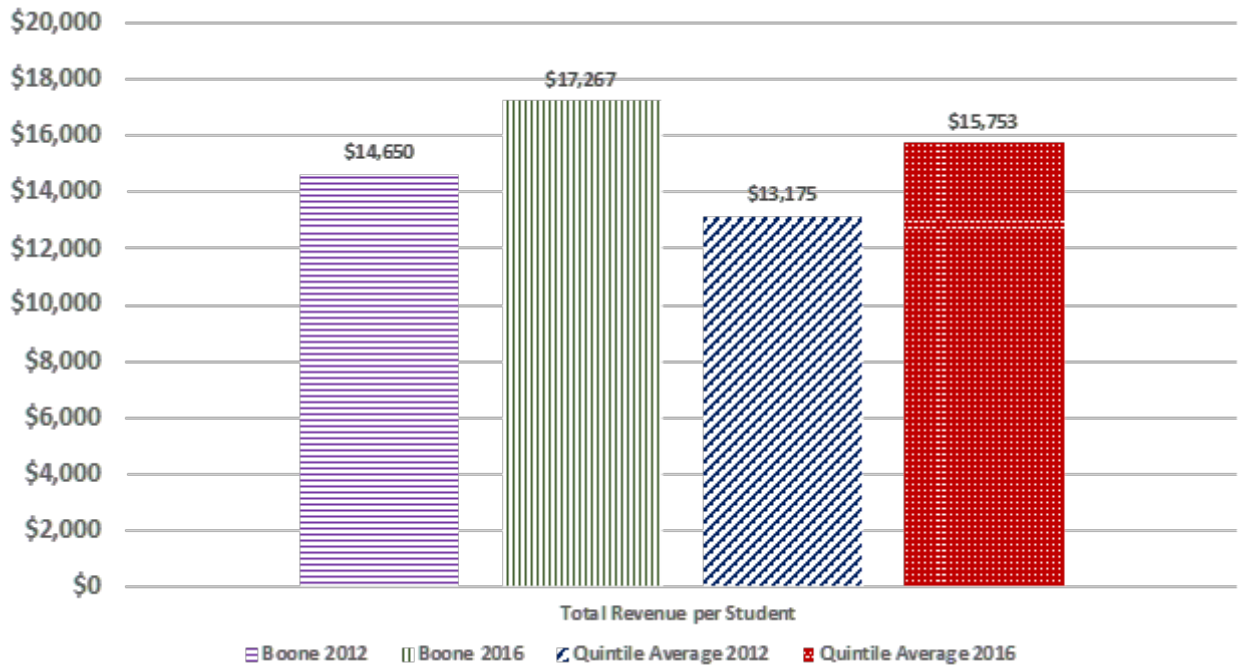
Although there may be large variation in enrollment across years due to uneven distribution within cohorts, the trend in middle school enrollment is downward for school districts in Boone County.[8]

In the course of determining cost structure for school districts in Boone County, this section of the study analyzes Boone County's revenues and costs over time for 2012 and 2016.[9]

Nebraska's 245 school districts are divided according to student enrollment into fifths, or quintiles. School districts in Boone County's quintile are listed in Appendix A. BCSD's revenue in 2012 and 2016 is compared to the quintile average school district's revenue in those years.

As depicted in Figure 2.1, in 2012 BCSD had 17 percent more revenue per student than the quintile average school district, whereas in 2016 it had only 2 percent more revenue per student. This is because the quintile average school district experienced significant revenue growth on a per student basis, leaping by 19.6 percent from $13,175 per student in 2012 to $15,753 per student in 2016. BCSD, on the other hand, increased by approximately 17.9 percent, or $2,617, between 2012 and 2016.

Figure 2.1: Boone County school districts vs its quintile average revenue per student, 2012 and 2016



Source: Goss & Associates based on U.S. Census data

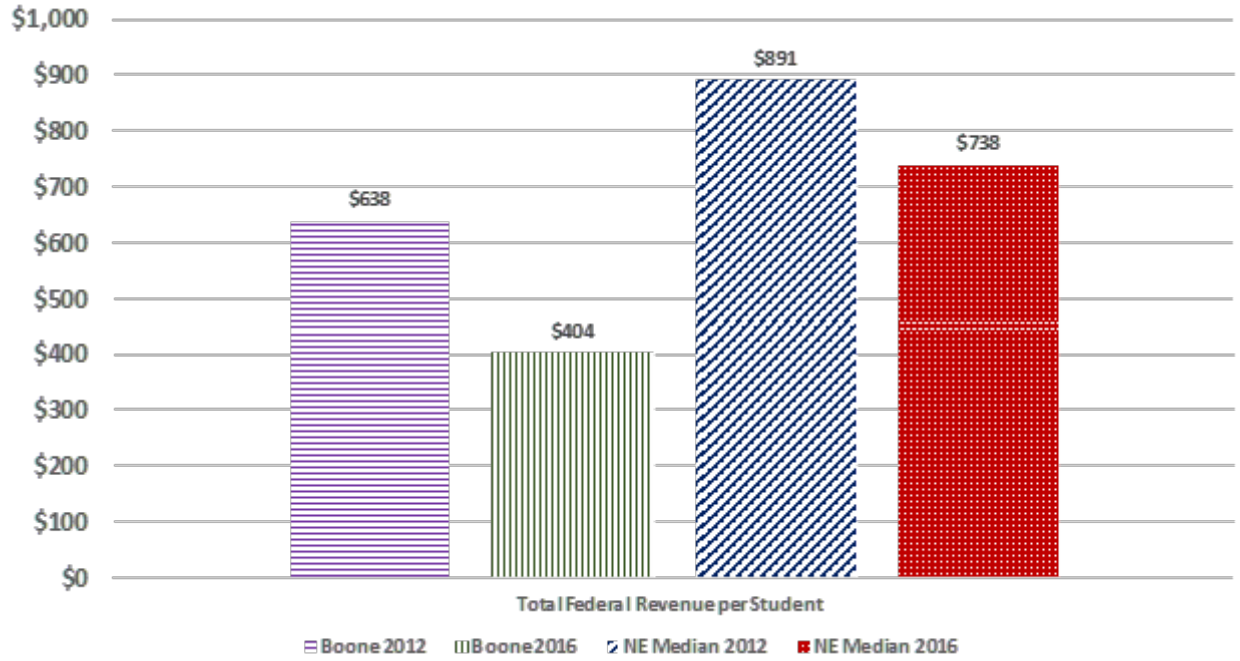
[7]The transportation cost savings include costs savings to the residents in the BCSD that may not be realized by a reduction in expenses to the operating budget of the school district (e.g. commuting costs of students).

[8]Data only available in combined format for all school districts in Boone County.

[9]The latest data by Nebraska school district is for 2016,

As demonstrated in Figure 2.2, Boone County School Districts have had a significant gap in federal revenue per student compared to the quintile average school district, widening by 32 percent from a gap of about $253 per student to $334 per student in 2016. This could be due to the quintile average district suffering more from poverty indicators, on which federal funding is often premised.

Figure 2.2: Boone County school districts vs quintile revenue per student, 2012 and 2016

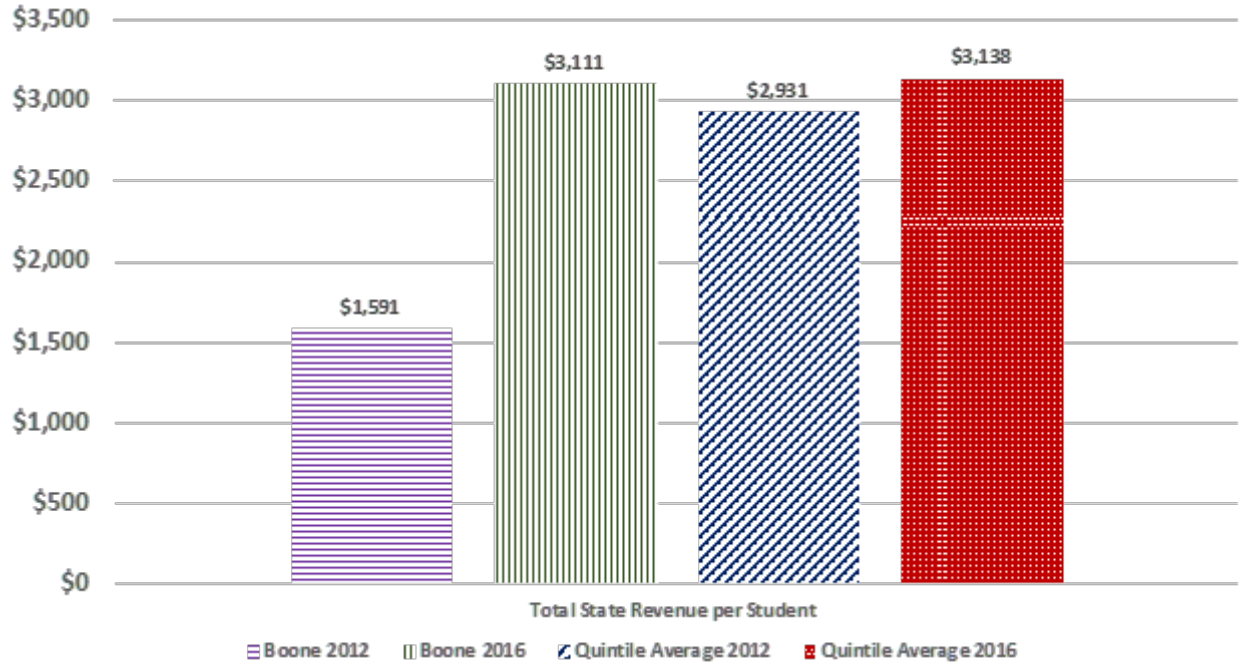


Source: Goss & Associates based on U.S. Census data

With respect to state revenue per student, as presented in Figure 2.3, Boone County School Districts experienced an approximate 96 percent increase from $1,591 per student in 2012 to $3,111 per student in 2016.

Although an explanation for this is lacking, the volatility in state funding is significant and important to determining the future of Boone County School Districts' financial situation. For local revenue per student, the difference between Boone County School Districts and the quintile average school district was approximately 59 percent wider in 2012 than it was in 2016. Both increased, but Boone County School Districts were already at a high level and increased at a 36 percent lower rate than did the quintile average school district. Boone County School Districts retain a 6 percent higher local revenue per student in 2016, but the trend may change in the future.

Figure 2.3: Boone County school districts vs quintile average state revenue per student, 2012 and 2016



Source: Goss & Associates based on school data

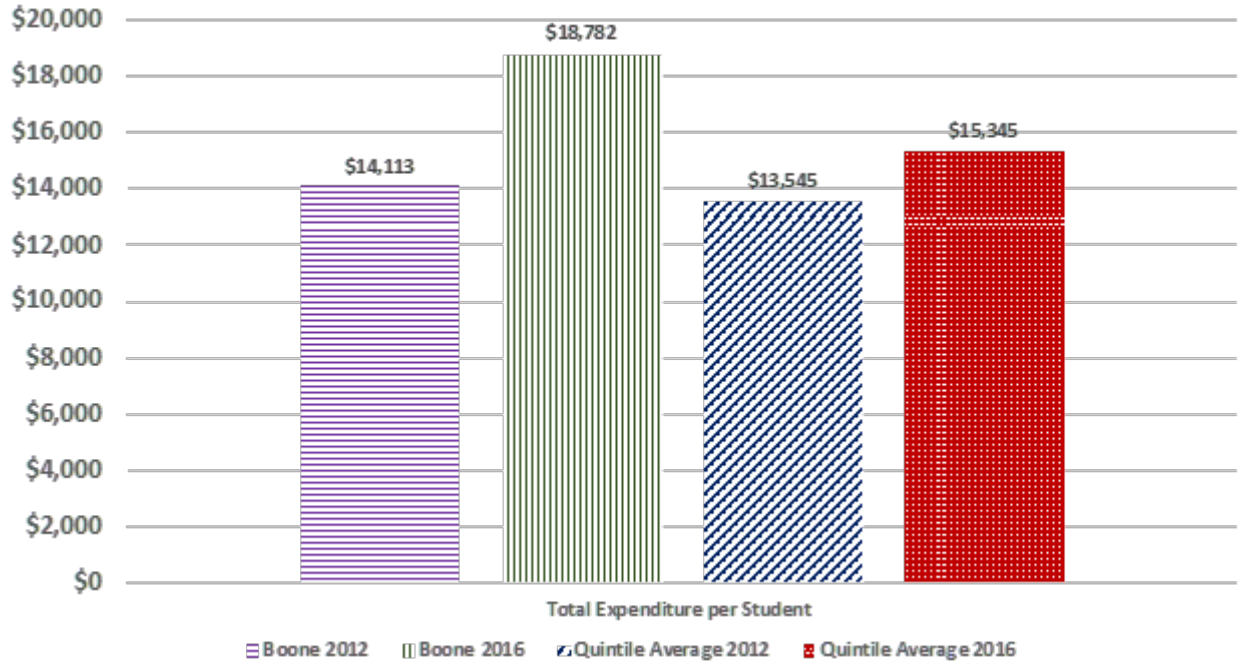
Figure 2.4 compares Boone County to its quintile in terms of total spending per student in 2012 and 2016. As presented, Boone County School Districts spent more in both years than its group.

Between 2012 and 2016, total expenditure per student increased by 33 percent, or $4,669, for Boone County School Districts, and 13.3 percent, or $1,800, for the quintile average school district.

A potential explanation for the above phenomenon is a drastic change in enrollment. This may be plausible because expenditure per student represents total spending divided by the total number of students. Therefore, the above result could be caused either by a dramatic decrease in enrollment, a significant increase in expenditures, or perhaps both.

According to census data, total enrollment in Boone County School Districts decreased from 591 in 2012 to 587, a 0.7 percent decrease. Because this represents a change of less than 1 percent in enrollment, the bulk of this increase can likely be attributed to an increase in expenditures.

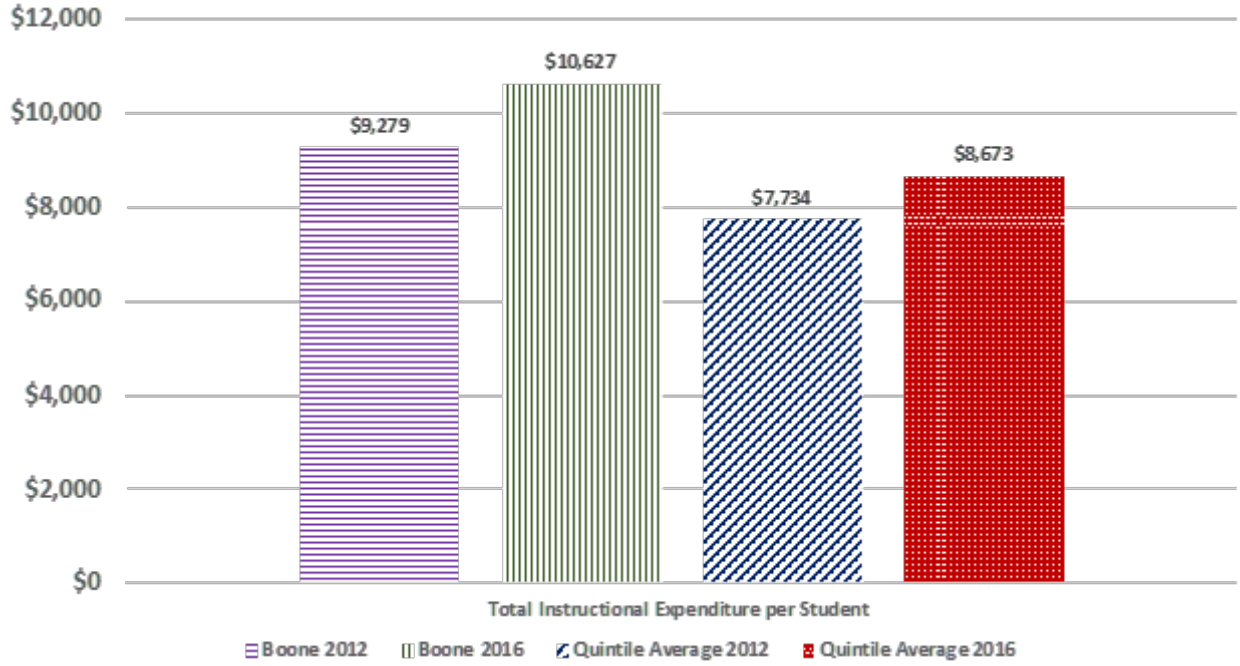
Figure 2.4: Boone County school districts vs quintile average total expenditure per student, 2012 and 2016



Source: Goss & Associates based on school data

Figure 2.5 shows BCSD outspending the quintile average school district in 2012 by approximately 16.7 percent, or $1,545 on instruction. Despite a 11.9 percent increase in spending by the quintile average district, BCSD's total instructional expenditure per student grew by approximately 14.5 percent, or $1,348, an even larger amount, to a more distinct lead.

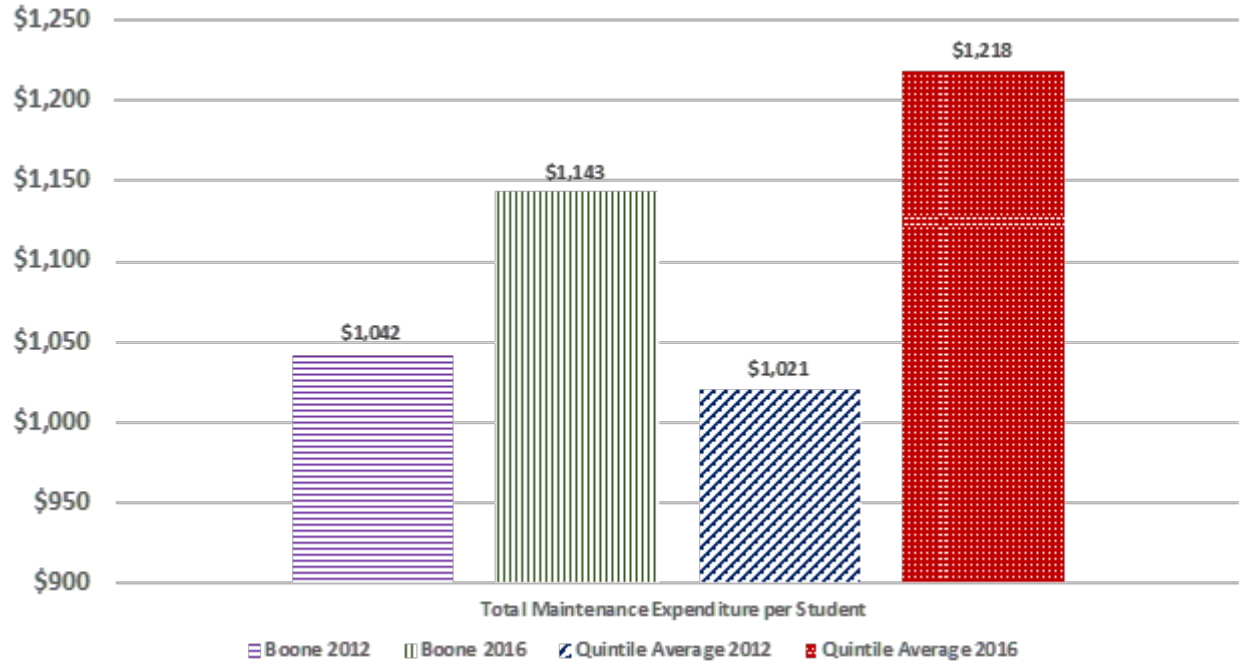
Figure 2.5: Boone County school districts vs quintile average instructional expenditure per student, 2012



Source: Goss & Associates based on U.S. Census data

Figure 2.6, as profiled below, shows Boone County"s maintenance expenditures as higher than the quintile average on a per-student basis, being 2.0 percent, or $21, higher in 2012 and approximately 6.6 percent, or $75, lower in 2016. However, the difference is rather low, with the county's maintenance expenditure growing by 9.7 percent, or $101, over the 4-year period, and the quintile average district's growing by approximately 19.3 percent, or $197. These data indicate that maintenance expenditures for Boone County school districts are very comparable to the quintile average, and changed significantly.

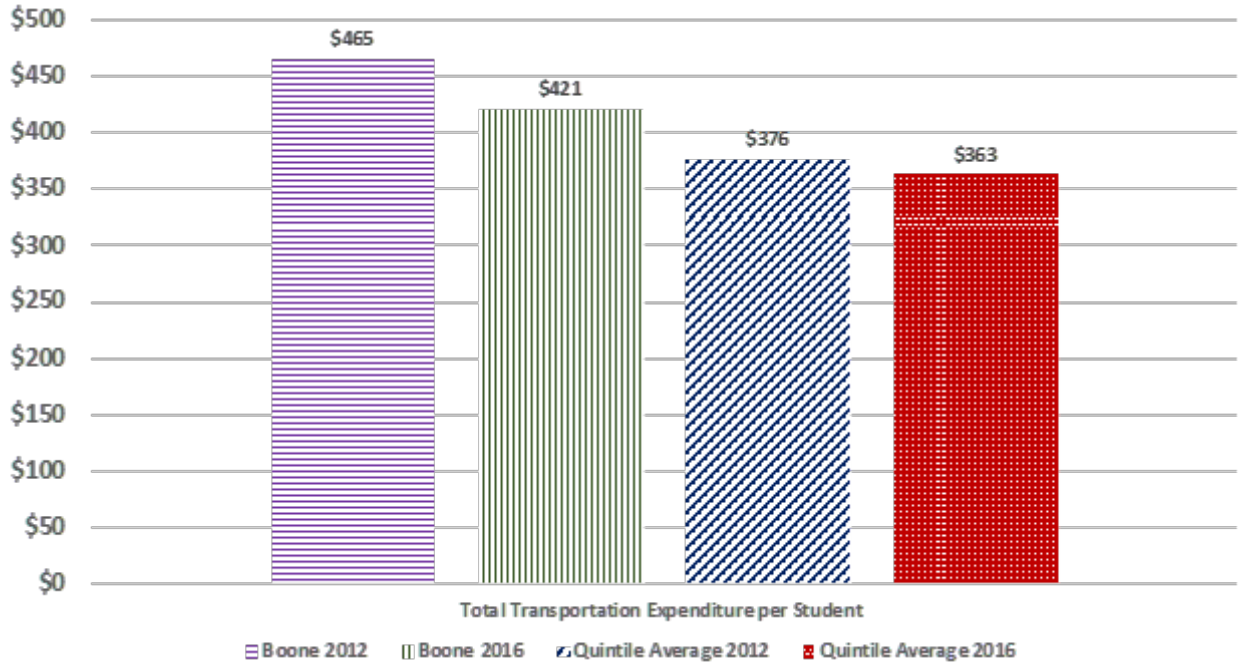
Figure 2.6: Boone County school districts vs quintile average maintenance expenditure per student, 2012



Source: Goss & Associates based on BCSD data

Expenditures on transportation, according to Figure 2.7, have decreased over time for both Boone County school districts and the quintile average school district. Boone County school districts decreased from $465 to $421, a 9.5 percent reduction, whereas the quintile average district diminished its spending from $376 to $363, which represents a 3.5 percent decrease.

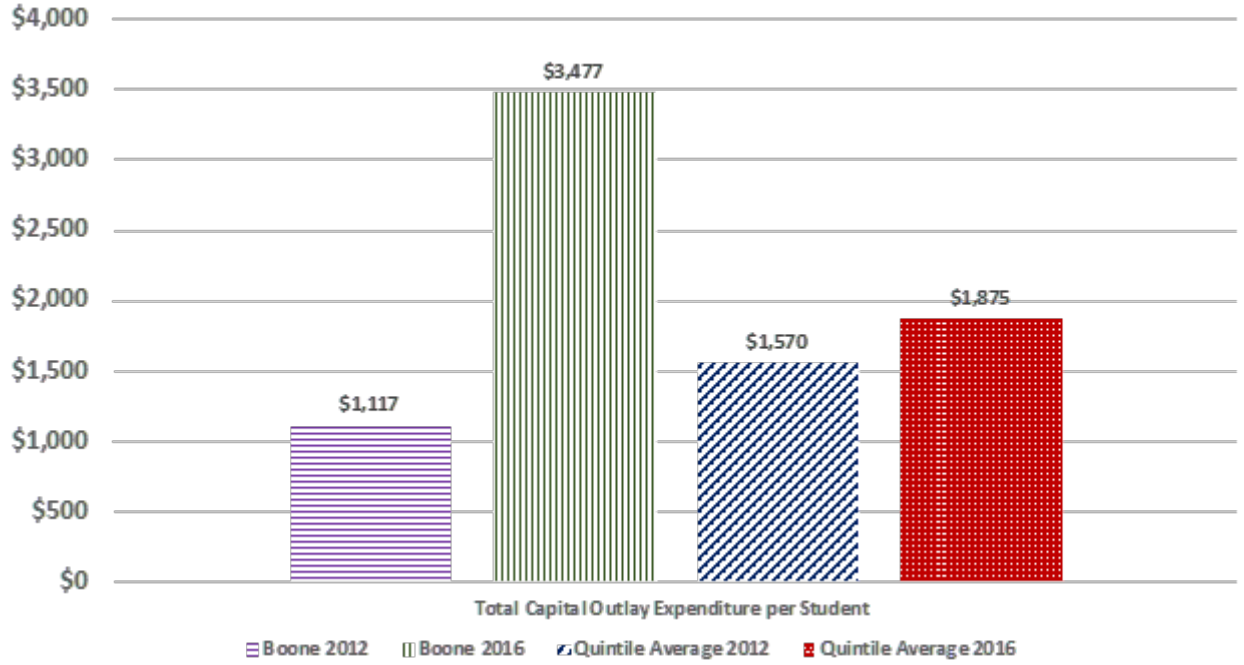
Figure 2.7: Boone County school districts vs quintile average transportation expenditure per student, 2012



Source: Goss & Associates based on U.S. Census data

As demonstrated in Figure 2.8, capital outlay expenditures per student were very high for Boone County school districts in 2016 in comparison to its own 2012 expenditures, as this figure had increased by approximately 211.3 percent during the four years. This graph illustrates the large increase in overall spending for 2016 during which the districts undertook some significant long-term projects. On the other hand, quintile average capital spending expanded by a smaller 19.4 percent.

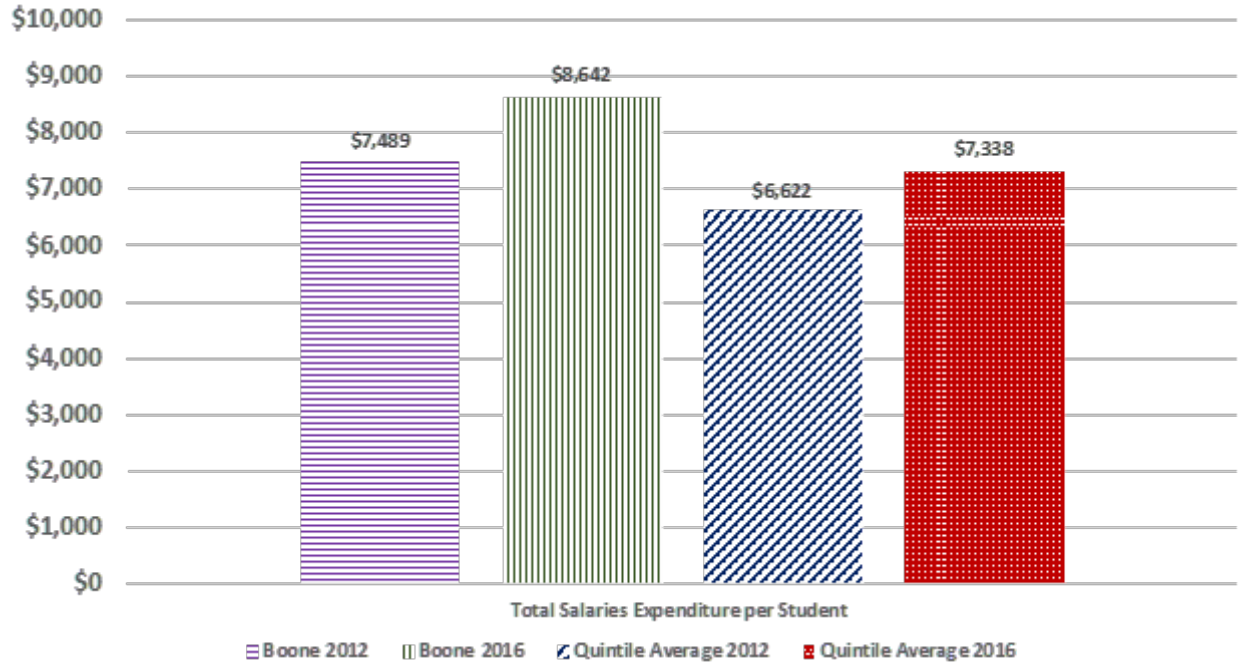
Figure 2.8: Boone County school districts vs quintile average capital outlay expenditure per student, 2012



Source: Goss & Associates based on U.S. Census data

Figure 2.9 below indicates that there was a significant increase of 15.4 percent in salary expenditures per student for the district between 2012 and 2016, when the quintile average school district increased its expenditure per student by 10.8 percent.

Figure 2.9: Boone County school districts vs quintile average salaries expenditure per student, 2012 and



Source: Goss & Associates based on U.S. Census data

Summary

In 2016, Boone County school districts spent $3,437 more per student than its quintile average. Approximately $1,954 per student of this gap was due to Boone County school districts' higher instructional spending. Additionally, compared to its quintile, Boone County school districts spent $1,602 more per student in capital expenditures.

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Section 3: Transportation

Boone Central Middle School Location Decision

Another important factor to consider in the location deicision is how the school's expenditures for transportation may change in the event that middle school services are shifted to Albion.

For the purposes of the transportation analysis, salary and benefit rates are assumed to be fixed, and the difference in cost is a function of miles traveled. Some elements that may lead to changes in cost for transportation may include:

- Depreciation
- Maintenance/Gas (Operating Expenses)
- Value of Students' Time
- Value of Staff's Time

Currently, 107 students who attend BCMS are residents of Albion, and 11 are from Petersburg. While this is a direct factor in favor of moving the middle school to Albion, the cost savings of this move depend on the factors listed above.

Especially significant is the actual cost savings for transportation of moving BCMS to Albion. The intent of this chapter is to calculate the transportation cost savings that would result from shifting the location of middle school services to Albion.

To determine the savings, several assumptions are made:

First, it is assumed that the commute is always 15 minutes and 12.5 miles each way between Albion and Petersburg. This may not hold true in cases of severe weather and it does not include driving within the town, which may be significant.

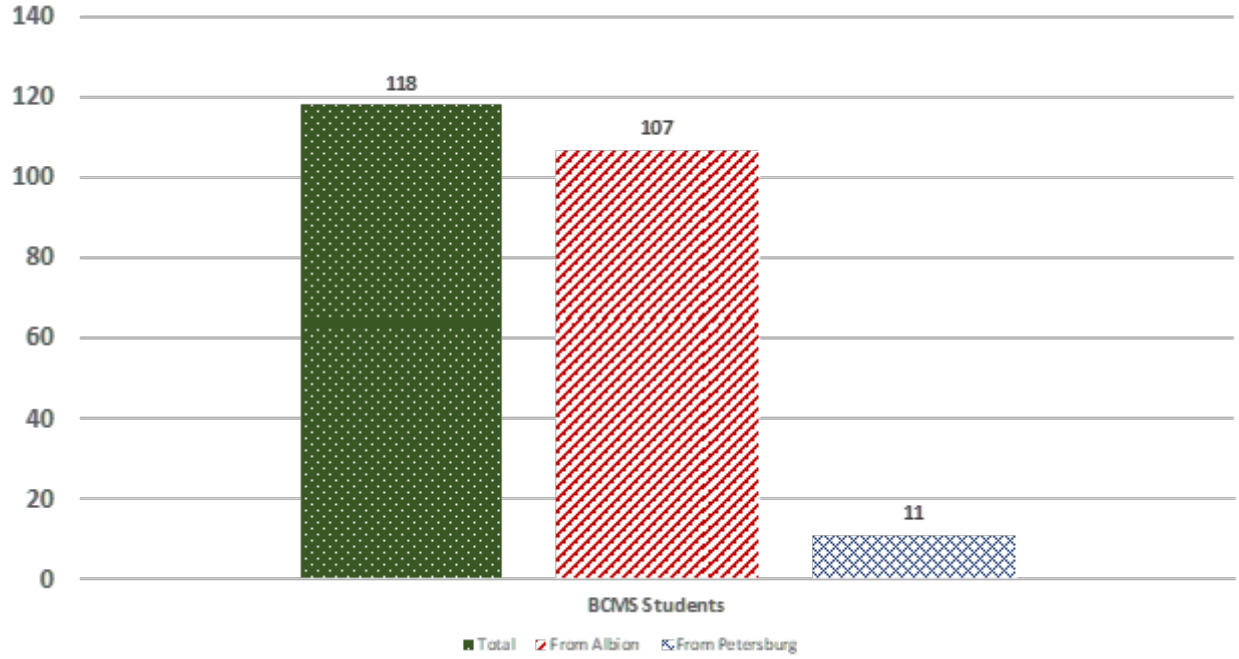
Second, the value of students' time is estimated to be $4.50 per hour, per student, which is half the Nebraska minimum wage. This is based on the assumption that students' time spent commuting could be better spent at other activities, such as household maintenance, helping on the farm, or homework.

Third, it is assumed that there are 175 school days per year, and commuting for after school activities are not considered. It is conservatively assumed that buses depreciate at the IRS rate for light vehicles of $0.55 per mile. In 2017-2018, 26,250 bus miles were driven for Petersburg routes by one middle school driver, at a cost of $68,272 for all operating expenses including wages, depreciation, gas, maintenance, and insurance.

Figure 3.1, on the following page, shows the relative proportion of BCMS students currently residing in Petersburg and Albion, based on the most recently accessible enrollment numbers by place of residence. This proportion provides a helpful indicator of which school location would be preferable from a transportation cost standpoint.

This means that, were middle school services located in Albion, there would be transportation cost savings, the magnitude of which is discussed later in this section.

Figure 3.1: BCMS enrollment by place-of-residence

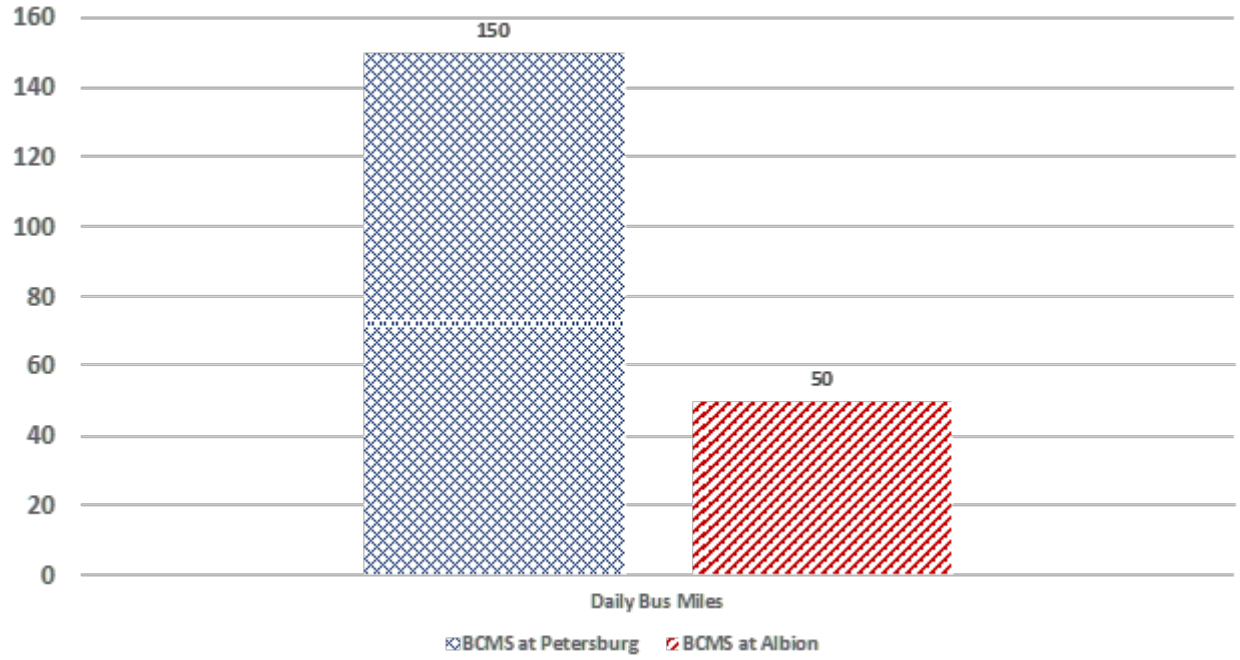


Source: Goss & Associates based on school data

Although enrollment gives a good picture of where the school should be located from a transportation perspective, total bus-miles traveled gives a more direct picture of the cost of transportation given the two location options. Figures 3.2 and 3.3 on the following page address this.

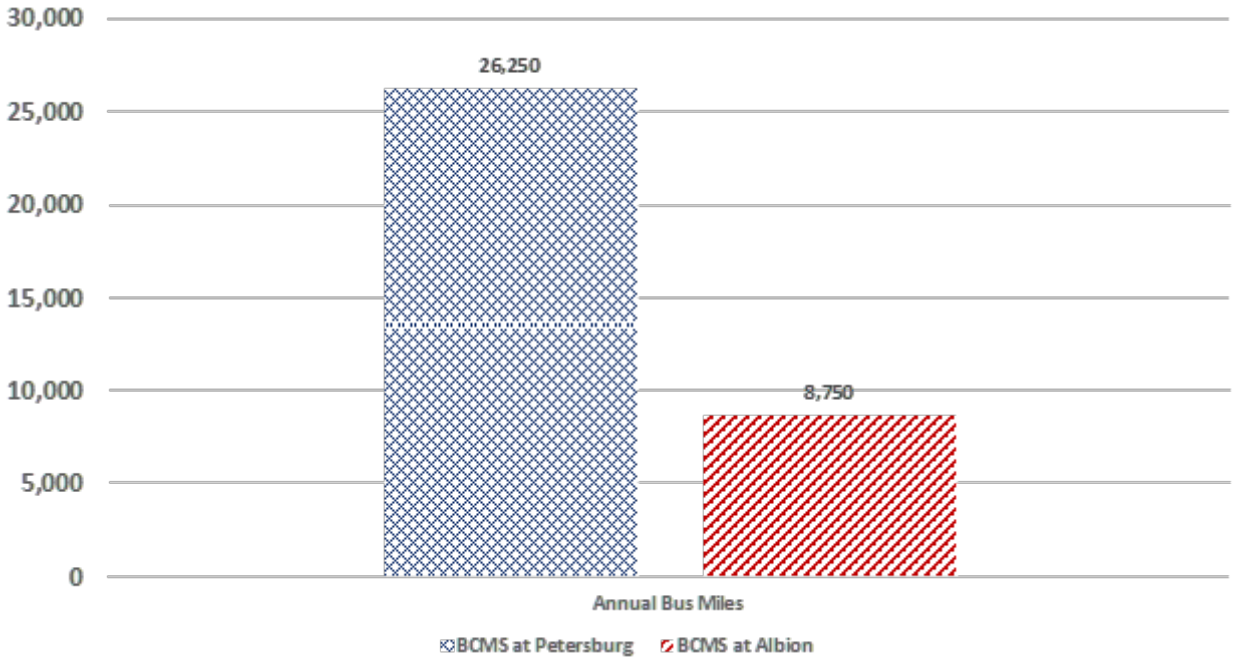
Figures 3.2 and 3.3 also show a stark difference in bus-miles traveled based on location. The number of bus miles traveled depends primarily on, in this case, the number of buses needed to transport middle schoolers to their destination. In the event that BCMS is located in Petersburg, there will be three busloads of students that make roundtrips between Albion and Petersburg, mainly to transport the Albion students to school in Petersburg.

Figure 3.2: Daily bus miles traveled: BCMS located at Albion vs Petersburg



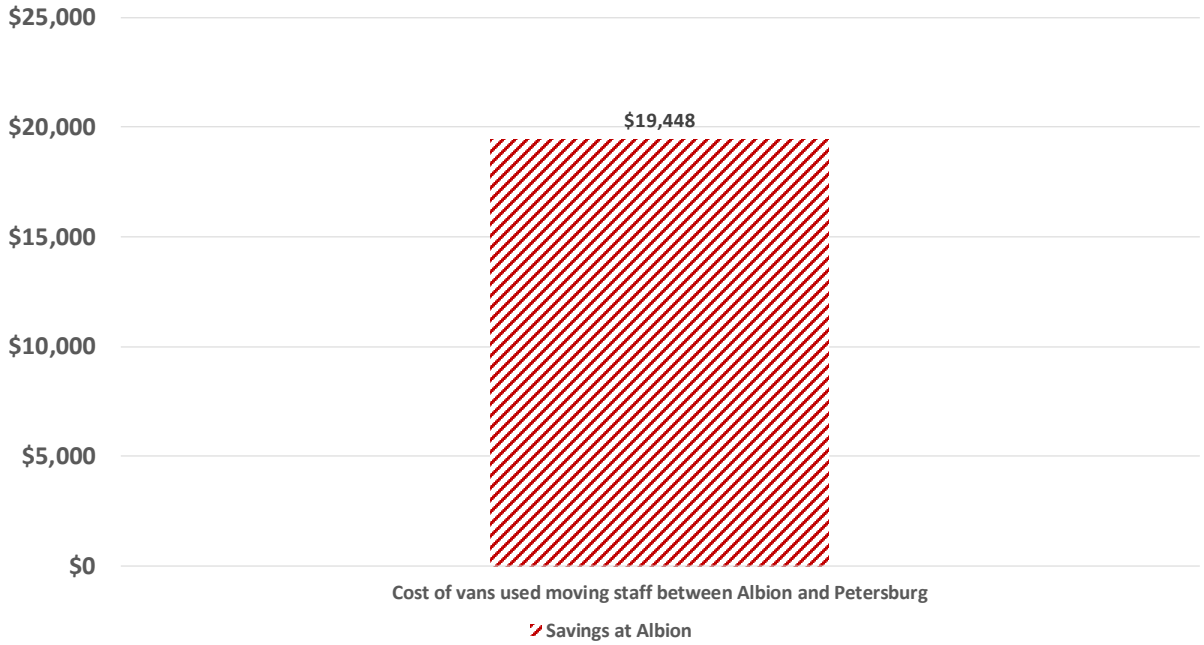
Source: Goss & Associates based on school data

Figure 3.3: Annual bus miles traveled: BCMS located at Albion vs Petersburg



Source: Goss & Associates based on school data

Figure 3.4: Annual staff van transportation costs savings by Albion location between Albion and Petersburg

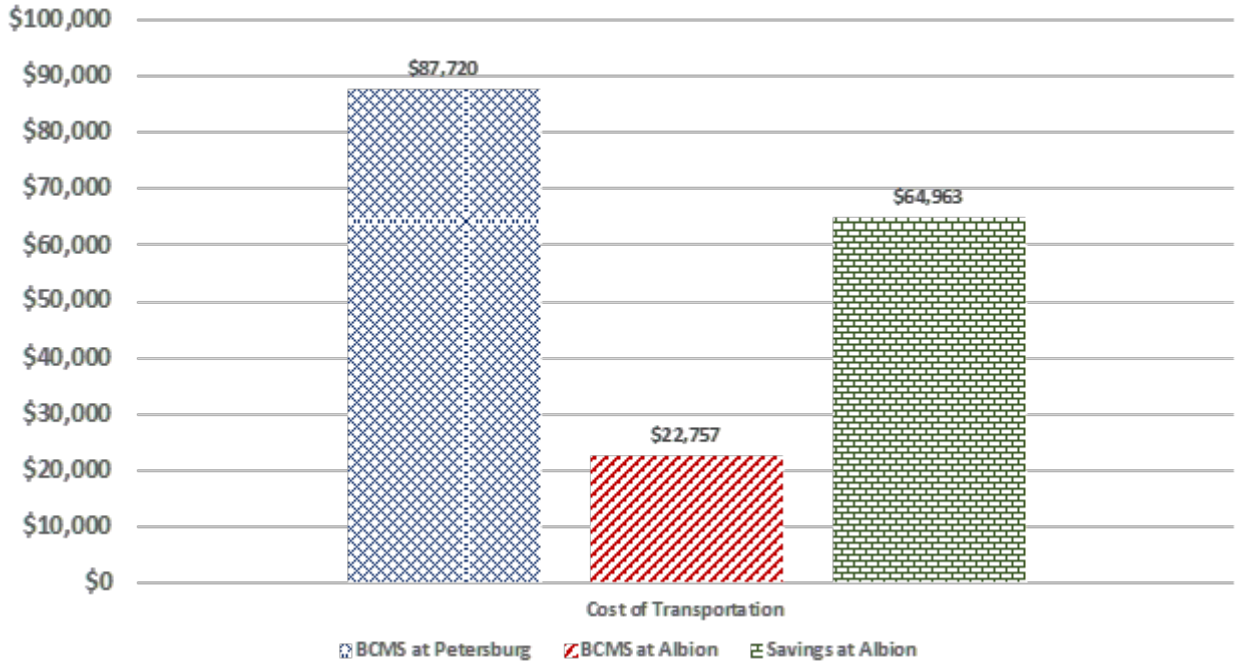


Source: Goss & Associates based on school data

If BCMS were relocated to Albion, there would only be one busload of students to transport between the two towns. Thus, there would be a distance-traveled reduction of two-thirds, or 66 percent, if BCMS were relocated to Albion. This would result in significant cost savings as detailed in Figure 3.5.

According to Figure 3.5, BCMS would save $64,963 per year, or 67 percent, in operating costs, including depreciation, resulting from the changed location. Approximately $9,538 of this savings is from depreciation of the bus.

Figure 3.5: Annual transportation operating costs including depreciation



Source: Goss & Associates based on school data

Students' time is also a consideration in these calculations. Although the cost of students' time is not directly borne by the district, allowing students more time to complete activities is of value. Figure 3.6 shows the number of student hours spent commuting annually. For the calculations in Figure 3.7 on the following page, the time of an individual student is assumed to be worth $4.50 per hour, and it is assumed that time spent commuting is time that cannot be spent doing another, more productive activity.

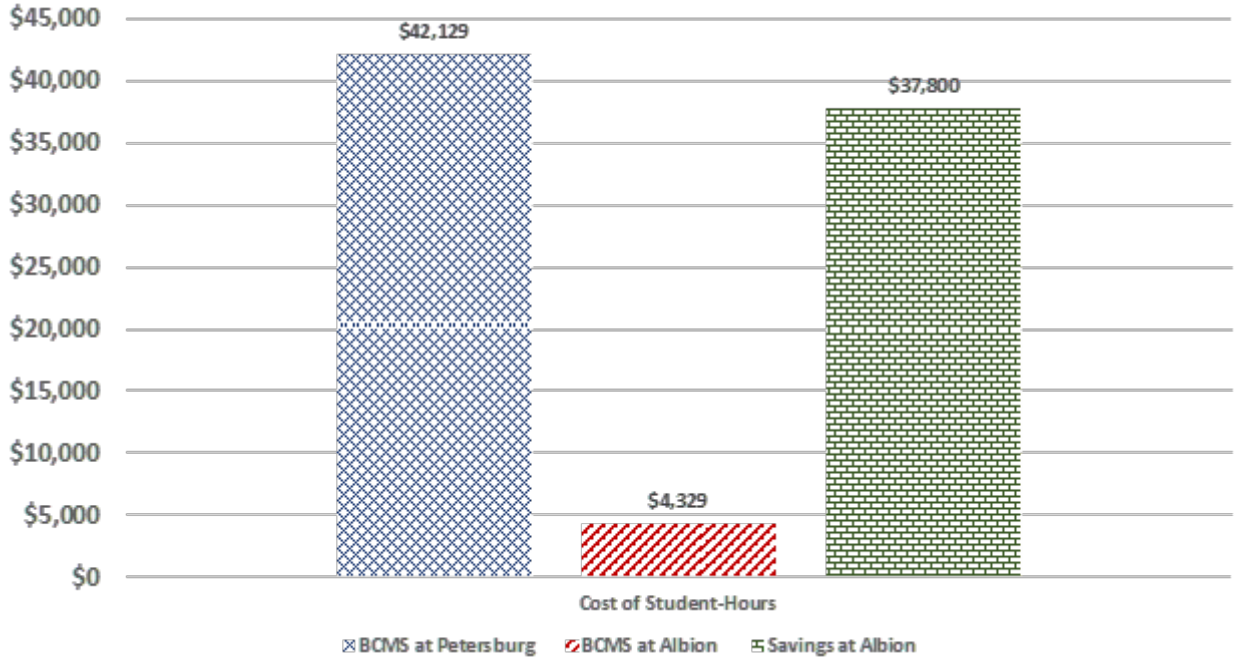
As depicted in Figures 3.6 and 3.7, the total time-cost savings of changing the location of BCMS from Petersburg to Albion is substantial, and estimated to be $37,800. It is important to note, however, that this is a net community savings with winners and losers. The more numerous Albion students will no longer commute to Petersburg, while the less numerous Petersburg students will experience increased commute times.

It is also important to note that the $37,800 time-cost savings is not directly spendable by the school district, but rather represents an estimate of the net value to the community that moving the school would provide. It is not a direct savings to the school district that can be saved and spent on other educational expenses.

Figure 3.6: Total student-hours spent commuting

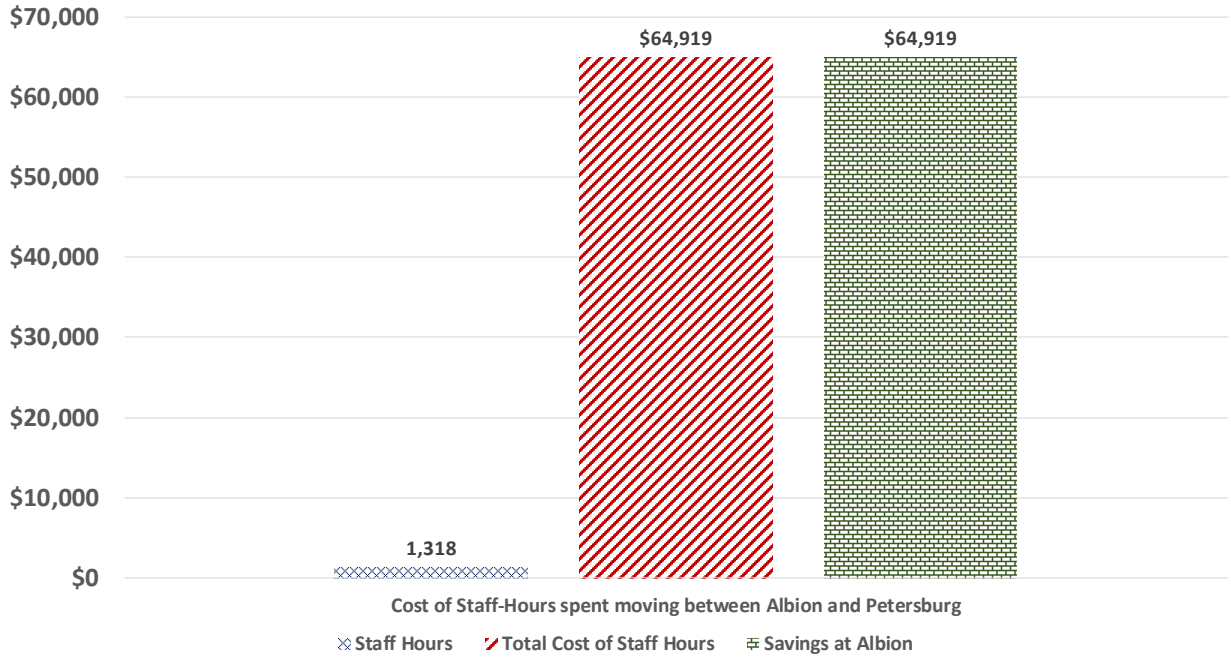
Source: Goss & Associates based on school data

Figure 3.7: Total annual cost of student-hours spent commuting



Source: Goss & Associates based on school data

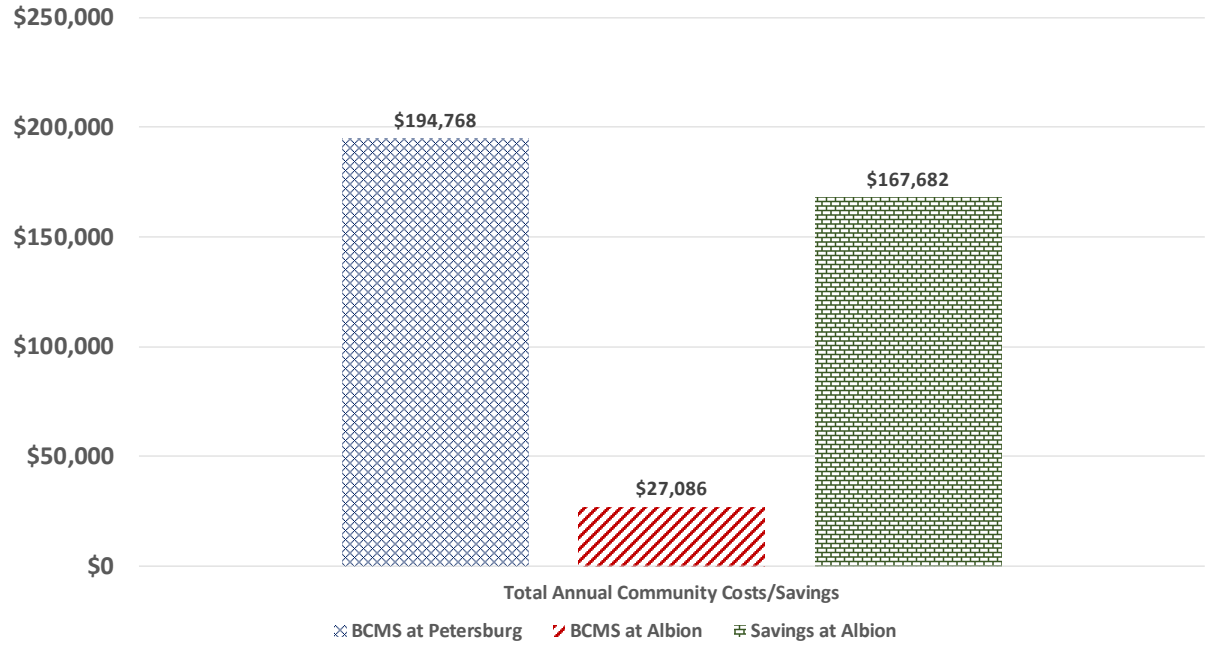
Figure 3.8: Total annual costs of staff-hours spent commuting



Source: Goss & Associates based on school data

Figure 3.9 takes into account all of the factors discussed earlier, including bus operating expenses, depreciation, and the value of students' time in commuting. As shown below, the total savings for these expenses as a result of relocating to Albion would be approximately $167682, or 86 percent. Savings include a $37,800 value in students' time due to the a shorter commute; $64,919 represents the cost to district of staff-hours spent commuting to Petersburg; $19,448 represents the cost of staff vans that currently transport the staff to and from Petersburg. The operating cost savings of the buses total $45,515.

Figure 3.9: Total annual transportation costs to community of each location



Source: Goss & Associates based on school data

Table 3.9 lists the 2019-2038 annual transportation savings for relocating the BCMS to Albion. Savings total $3.2 million in current dollars, and $2.0 million in 2019 dollars.

Table 3.9: Transportation savings for Albion BCMS		
year	Current dollars	2019 dollars
2019	0	0
2020	$0	$0
2021	$174,483	$152,898
2022	$177,986	$149,252
2023	$181,559	$145,692
2024	$185,204	$142,217
2025	$188,922	$138,825
2026	$192,715	$135,514
2027	$196,584	$132,282
2028	$200,531	$129,127
2029	$204,557	$126,048
2030	$208,664	$123,042
2031	$212,853	$120,107
2032	$217,126	$117,242
2033	$221,486	$114,446
2034	$225,932	$111,717
2035	$230,468	$109,052
2036	$235,095	$106,451
2037	$239,815	$103,912
2038	$244,630	$101,434
Total savings	$4,077,342	$2,576,357
Source: Goss & Associates; A January 1, 2021 occupancy date is assumed		

Summary

This section of the study has demonstrated that a significant annual savings of $167,682 would be achieved if the BCMS was relocated to Albion. Assuming occupancy by January 1, 2021, and a discount rate of 4.5 percent, a total savings in 2019 dollars of $2,576,357 would be achieved.

Section 4: Maintenance, Utilities, and Staff Savings

In the course of comparing building options, two elements relevant to long-run expenditures are maintenance and utilities. In 2018, utility and maintenance costs at the current BCMS were $29,187 and $142,385, respectively.

The analysis in this section assumes that changes in electric and natural gas costs are based on updating older, less efficient equipment, to newer, more efficient equipment. Additionally, both maintenance costs and utility costs are assumed to be correlated with the number of square feet in a building, as it costs less to heat and care for a smaller building.

The utility costs that will be examined include: telecom, gas, electric, water, garbage, and sewer. The maintenance costs examined include: custodian payroll, custodial contractor services, custodial supplies, facility repairs, and facility improvements. It is assumed that these costs are tied to the square footage of each option.

The savings estimated here may be even greater due to the economies of scale implicit in the combination of multiple levels of schools in one contiguous building.

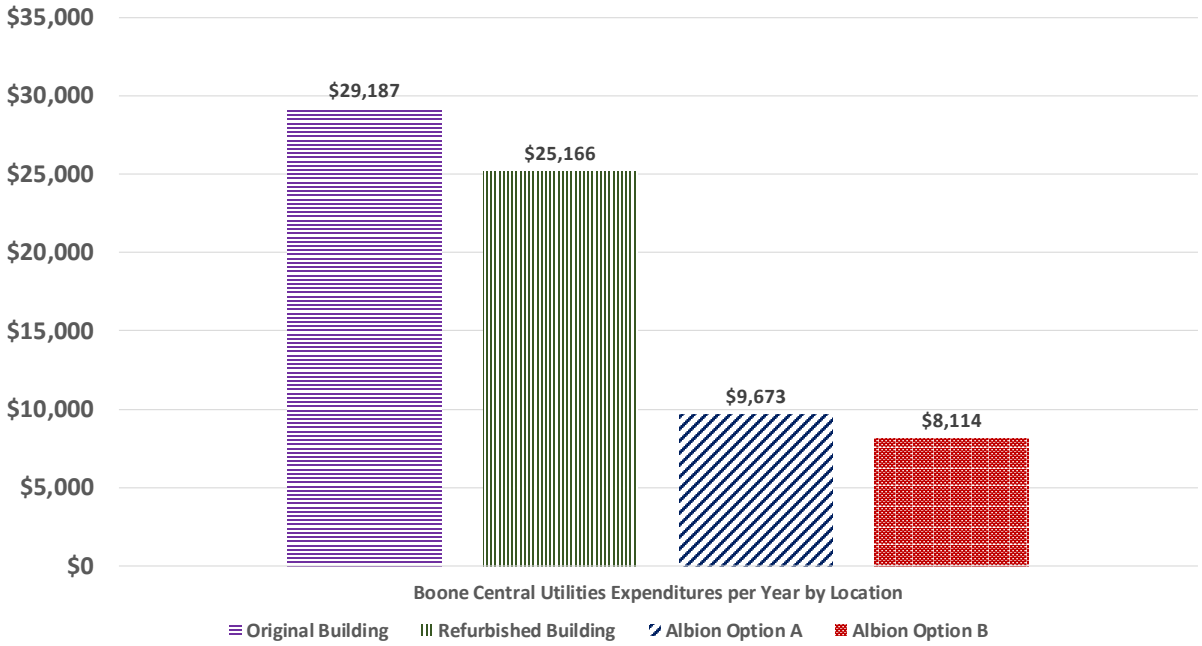
The telecommunications bill would likely remain unchanged in the event of relocation, and monthly water, garbage, and sewer costs are related to the number of students at a location rather than the modernity of the equipment. Electricity and gas bills, however, can change due to upgrades to more modern equipment.

This section of the study undertakes to determine how much money in utility expenses would be saved by the upgrading of electric and gas-using machines. For example, air conditioning, ventilation, heating, etc. Taking into account the BCMS's current equipment, and the efficiency increase of equipment upgrades, saving can be calculated for utilities assuming that BCMS's proportion of utility expenditures is the same as the national average middle school.

Additionally, it is assumed that utility expenses reduce linearly with a reduction in square footage, as a smaller building costs less to heat, air condition, and service.[10]

Figure 4.1 shows utility costs for the building options. Analyses indicate that utility costs are lower for the refurbished building, and significantly lower for rebuilding in Albion for both Option A and Option B.

Figure 4.1: BCMS utilities expenditures per year by location (2019 dollars)



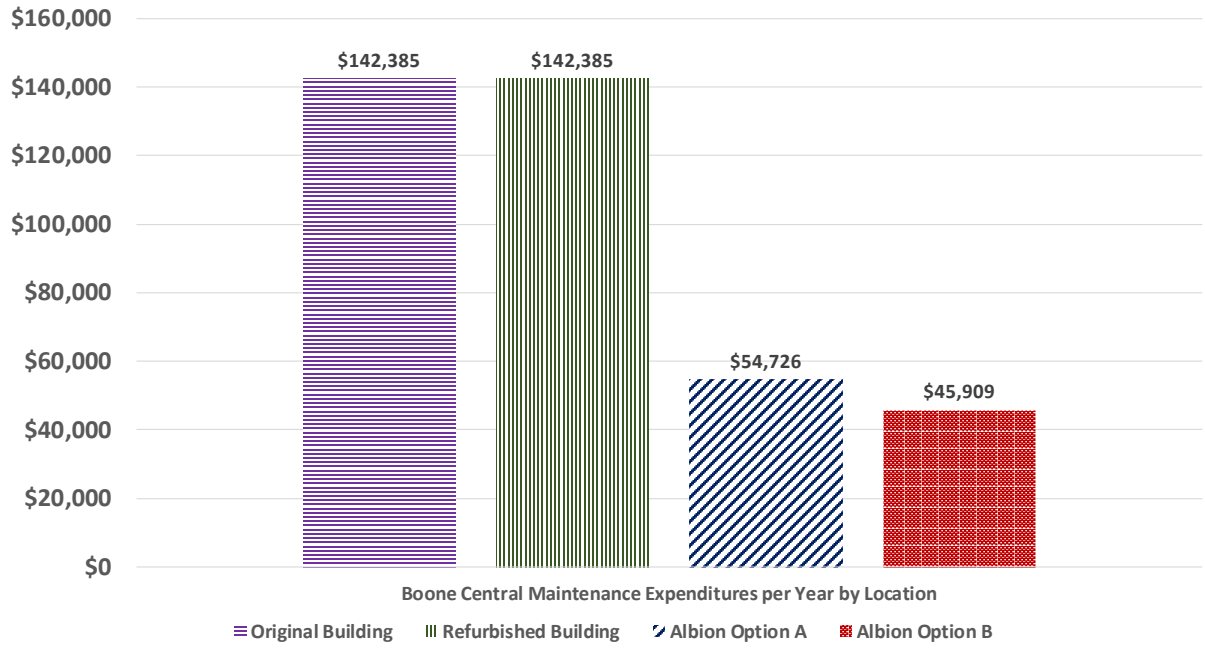
Source: Goss & Associates

[10]Replace the conventional mixing ventilation system with a displacement system for a 15 percent efficiency increase. Replace the current T8 fluorescent bulbs with T8 LEDs for a 600 percent efficiency increase. Replace the current piecemeal air conditioning system with modern central A/C for a 30 percent efficiency increase. Replace the 1978 Bryant natural gas boiler heating system with a newer Bryant model for a 17 percent efficiency increase, assuming the 1978 Bryant's AFUE rating is 78 percent.

For maintenance expenses it is assumed that a smaller building takes less time, resources, and money to maintain, all else equal. Therefore, a reduction in square feet for the building providing BCMS services would result in a corresponding reduction in both utility costs and maintenance costs.

In Figure 4.2, results are shown for the maintenance cost differences between the various options, with Option A maintenance costs 160.2 percent lower, and Option B maintenance costs 210.1 percent lower than the original building.

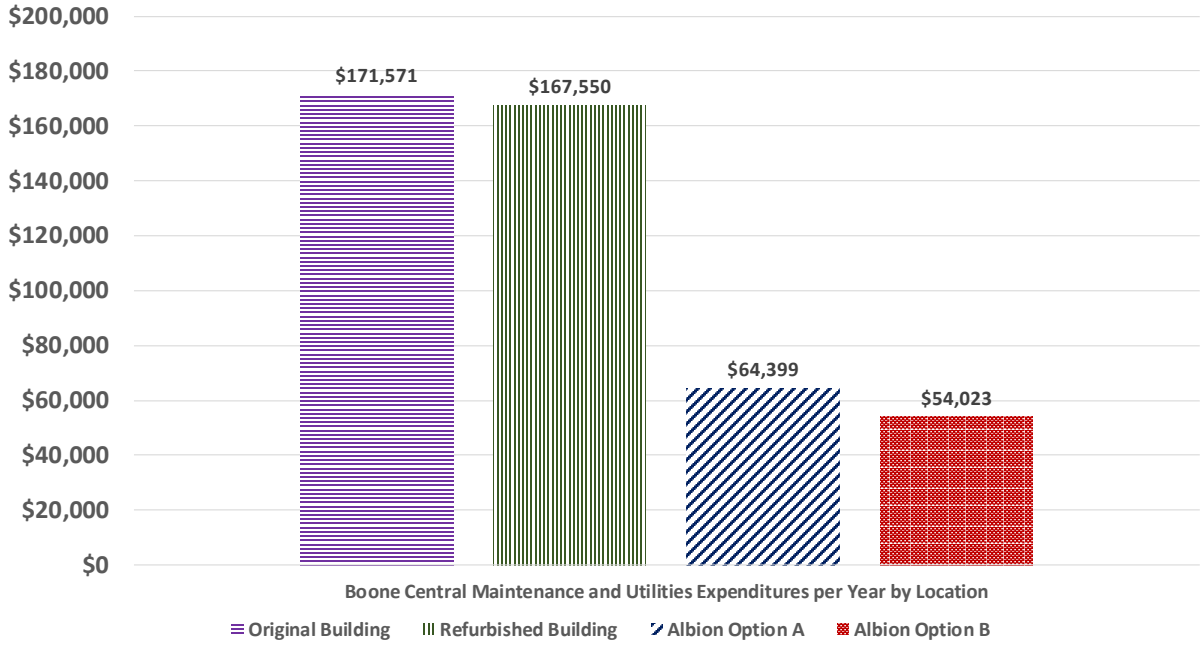
Figure 4.2: BCMS maintenance expenditures per year by location (2019 dollars)



Source: Goss & Associates

Figure 4.3 profiles maintenance and utilities costs for the building options. As shown, Option A and C are more than $100,000 per year less in costs than the original building. This represents a savings of 166.4 percent, and 217.6 percent, respectively.

Figure 4:3: Utility and maintenance costs for 2019 by location (2019 dollars)



Source: Goss & Associates

Table 4.1 lists utility and maintenance costs discounted to 2019, or present value. As listed, the greatest savings at $1,609,149 would be achieved by Albion Option B. Savings of $1,467,113 and $55,038 for Albion Option A and refurbishment, respectively, would be achieved in in utility and maintenance savings.

Table 4.1: Discounted cost of utilities and maintenance, 2019-2038

	Current Building	Refurbish	Albion Option A	Albion Option B
2019	$0	$0	$0	$0
2020	$0	$0	$0	$0
2021	$162,551	$158,741	$61,013	$51,183
2022	$158,220	$154,512	$59,387	$49,819
2023	$154,004	$150,395	$57,805	$48,492
2024	$149,901	$146,388	$56,265	$47,200
2025	$145,907	$142,488	$54,766	$45,942
2026	$142,019	$138,691	$53,307	$44,718
2027	$138,235	$134,996	$51,886	$43,527
2028	$134,552	$131,399	$50,504	$42,367
2029	$130,967	$127,898	$49,158	$41,238
2030	$127,478	$124,491	$47,849	$40,139
2031	$124,081	$121,174	$46,574	$39,070
2032	$120,775	$117,945	$45,333	$38,029
2033	$117,558	$114,803	$44,125	$37,016
2034	$114,425	$111,744	$42,949	$36,029
2035	$111,377	$108,767	$41,805	$35,070
2036	$108,409	$105,869	$40,691	$34,135
2037	$105,521	$103,048	$39,607	$33,226
2038	$102,709	$100,302	$38,552	$32,340
Present value (2019) Cost	**$2,348,689**	**$2,293,651**	**$881,576**	**$739,540**
Present value Savings	**$0**	**$55,038**	**$1,467,113**	**$1,609,149**

Source: Goss & Associates

Staff Savings[10]

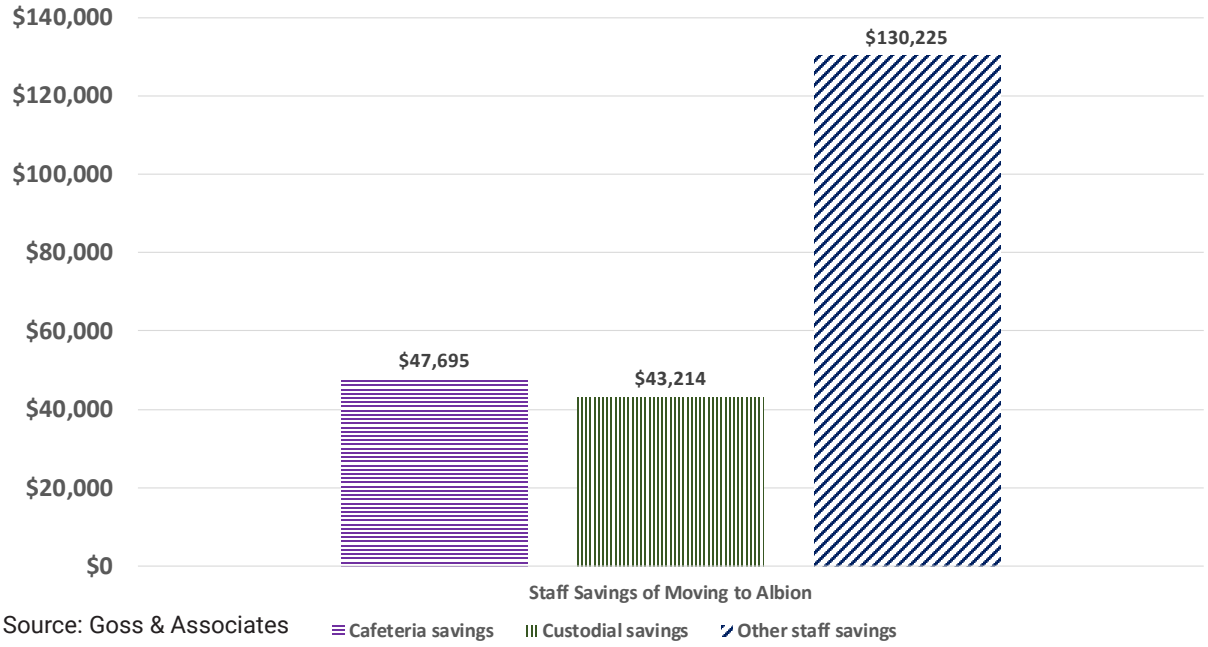
With regard to the moving of BCMS to Albion, there are also cost savings that can be realized through a change in staffing. By moving to a combined campus with the elementary and high school, the BCSD realizes certain agglomeration economies by being collocated.

One particular aspect of this is that all of the levels of the school would be using the same cafeteria facilities, and certain economies could be realized there by reducing hours for a cost savings of $47,695 per year.

In a similar manner, custodial personnel would be able to be more efficient and spend less hours on maintaining the old Petersburg campus. For this reason, custodial hours would be reduced, resulting in a savings of $43,214 per year. Other staffing changes occurring at the same time of the move will save $130,225[12]. The total value of the savings related to staffing and hours worked amounts to $221,134.

Figure 4.4 below shows the breakdown of the staffing cost savings which can be realized by moving to Albion.

Figure 4:4: Staffing costs savings per year



Source: Goss & Associates

[11]Data provided by BCSD administration.

[12]Due to the potential of personally identifying information being released in the study, the details of these staffing changes will remain with the BCMS administrative team.

Table 4.2 lists staff savings for Albion Option A and C from 2019 and 2038. These savings are in comparison to the original building and the refurbished building. In total, a savings of $2,000,847 in 2019 dollars would be achieved.

Table 4.2: Staff savings for Albion options A and C, 2019-38 (in 2019 dollars)

Year	Cafeteria	Custodial	Other staff savings
2019	$0	$0	$124,617
2020	$0	$0	$121,645
2021	$43,490	$39,404	$118,744
2022	$42,453	$38,464	$115,912
2023	$41,440	$37,547	$113,147
2024	$40,452	$36,651	$110,449
2025	$39,487	$35,777	$107,814
2026	$38,545	$34,924	$105,243
2027	$37,626	$34,091	$102,733
2028	$36,729	$33,278	$100,283
2029	$35,853	$32,484	$97,891
2030	$34,998	$31,710	$95,556
2031	$34,163	$30,953	$93,277
2032	$33,348	$30,215	$91,053
2033	$32,553	$29,494	$88,881
2034	$31,776	$28,791	$86,761
2035	$31,018	$28,104	$84,692
2036	$30,279	$27,434	$82,672
2037	$29,557	$26,780	$80,700
2038	$28,852	$26,141	$78,776
Total savings	**$642,618**	**$582,243**	**$2,000,847**
Present value Savings			

Appendix A: Boone County's quintile of schools

Table A.1: BCSD's quintile of schools	Fall 2016 enrollment
MALCOLM SCH DIST 148	479
MADISON CITY SCH DIST 1	493
TWIN RIVER PUBLIC SCHOOLS	497
AINSWORTH SCHOOL DIST 10	507
JOHNSON COUNTY SCHOOL DISTRICT	524
HERSHEY SCH DIST 37	525
LOGAN VIEW PUBLIC SCHOOLS	528
NORTH BEND CENTRAL PUBLIC SCHOOLS	535
LOUISVILLE PUBLIC SCH DISTRICT 32	550
WINNEBAGO SCH DIST 17	550
ORD SCH DIST 5	550
WOOD RIVER RURAL HIGH SCHOOL DIST 83	553
KIMBALL CO SCHOOL DISTRICT 1	560
CHASE COUNTY SCHOOL DISTRICT 10	564
TEKAMAH-HERMAN SD 1	569
ARLINGTON PUBLIC SCH DIST 24	569
WILBER-CLATONIA PUB SCH DISTRICT 82	577
FILLMORE CENTRAL PUBLIC SCHOOLS	583
FORT CALHOUN SCH DIST 3	590
BOONE COUNTY SCHOOL DISTRICTS	591
RAYMOND CENTRAL SCH DIST 161	613
VALENTINE RURAL HIGH SCH DISTRICT 6	635
CONESTOGA SCHOOL DIST 56	642
GIBBON SCH DIST 2	647
DAVID CITY SCH DIST 56	666
ST PAUL CITY SCH DIST 1	690
MITCHELL PUBLIC SCHOOL DIST 31	696
LAKEVIEW COMMUNITY SCHOOLS	697
PIERCE CITY SCH DIST 2	698
MILFORD PUBLIC SCH DIS 5	708
DOUGLAS COUNTY WEST COMMUNITY SCHOOL DISTRICT 15	716
SYRACUSE-DUNBAR SCH DIST 27	735
GORDON-RUSHVILLE HIGH SCHOOL DISTRICT 10	737
CENTRAL CITY SCH DIST 4	743
ONEILL CITY SCH DIST 7	759
MINDEN SCH DIST 503	772
SOUTH CENTRAL NE UNIFIED SYSTEM 5	778
WEST POINT CITY SCH DIST 1	841
ASHLAND-GREENWOOD SCH DIST 1	851
FALLS CITY SCH DIST 56	871
AUBURN CITY SCH DIST 29	872
BROKEN BOW CITY SD 25	875
OGALLALA CITY SCH DIST 1	899
CHADRON SCH DIST 2	903

Source: U.S. Census Bureau

Appendix B: Discount factor, 2019-2038

Table B.1: Discount factor by year, 2019-38		
Period	Year	Discount rate
1	2019	1.045
2	2020	1.092
3	2021	1.141
4	2022	1.193
5	2023	1.246
6	2024	1.302
7	2025	1.361
8	2026	1.422
9	2027	1.486
10	2028	1.553
11	2029	1.623
12	2030	1.696
13	2031	1.772
14	2032	1.852
15	2033	1.935
16	2034	2.022
17	2035	2.113
18	2036	2.208
19	2037	2.308
20	2038	2.412
Source: Goss & Associates based on Boone County bond yield estimate of 4.5%		

Appendix C: Researchers' Biographies

Ernie Goss is the Jack MacAllister Chair in Regional Economics at Creighton University and is the initial director for Creighton's Institute for Economic Inquiry. He is also principal of the Goss Institute in Denver, Colo. Goss received his Ph.D. in economics from The University of Tennessee in 1983 and is a former faculty research fellow at NASA's Marshall Space Flight Center. He was a visiting scholar with the Congressional Budget Office for 2003-2004 and has testified before the U.S. Congress, the Kansas Legislature, and the Nebraska Legislature. In the fall of 2005, the Nebraska Attorney General appointed Goss to head a task force examining gasoline pricing in the state.

He has published more than 100 research studies focusing primarily on economic forecasting and on the statistical analysis of business and economic data. His book Changing Attitudes Toward Economic Reform During the Yeltsin Era was published by Praeger Press in 2003, and his book Governing Fortune: Casino Gambling in America was published by the University of Michigan Press in March 2007.

He is editor of Economic Trends, an economics newsletter published monthly with more than 11,000 subscribers, produces a monthly business conditions index for the nine-state Mid-American region, and conducts a survey of bank CEOs in 10 U.S. states. Survey and index results are cited each month in approximately 100 newspapers; citations have included the New York Times, Wall Street Journal, Investors Business Daily, The Christian Science Monitor, Chicago Sun Times, and other national and regional newspapers and magazines. Each month 75-100 radio stations carry his Regional Economic Report.

Jackson "Alex" Blalock is a financial research assistant with Goss & Associates. A Creighton undergraduate economics major with a 3.98 cumulative GPA in his senior year, he also served as the VP of Finance for the Creighton Student Union, providing oversight and management of its financial operations. As an Army ROTC Cadet, he is a graduate of Fort Benning's Air Assault School, a recipient of the Superior Cadet Award, and has served in two unit staff positions simultaneously. In his position of Student Accounts Intern at the Creighton University Business Office, he developed detailed policies and procedures to aid in the training of future interns.

Appendix D: Goss Funded Research Contracts 2017-2018

Below are examples of impact studies completed by Goss & Associates for 2017-2018.

2018

1. Reducing the Property Tax Burden on Nebraska Farmland: An Evaluation of the Fair Nebraska Plan. Completed for Fair Nebraska.
2. The Economic and Fiscal Impact of the Council Bluffs Riverfront Development (River's Edge). Completed for the Iowa West Foundation
3. The Economic Contributions of Ho-Chunk, Inc.to the Winnebago Indian Reservation, Iowa, Nebraska, South Dakota and the U.S. Completed for Ho-Chunk, Inc.
4. Nebraska's Independent Colleges and Universities: Spurring Economic Growth and Brain Gain for the State and Its Counties. Completed for the Council of Independent Nebraska Colleges Foundation (CINCF).

2017

5. The Economic Impact of the Streetcar on the City of Omaha. Completed for the City of Omaha.
6. The Economic Impact of the Flatiron Development on the City of Omaha. Completed for Standard Development.
7. Pet-Friendly Rankings, Pet Ownership Rates, and Economic Outcomes. Completed for PetSmart.
8. The Impact of a Walkable, Workable, and Livable Midtown Omaha. Completed for Midtown 2050.
9. The Net Benefits and Costs of Prestage Farms to the Mid Iowa Region. Completed for the Mid Iowa Growth Partnership.
10. Boys Town: A Century of Contributions to the Economy of the Omaha Metropolitan Region and to the Well-Being of its Children and Families. Completed for Boys Town.
11. The Economic Impact of the Death Penalty on the State of Nebraska. http://retainajustnebraska.com/wp-content/uploads/2016/08/Economic-Impact-of-the-Death-Penalty-on-the-State-of-Nebraska-.pdf. Completed for Retain a Just Nebraska.

BOONE CENTRAL SCHOOL DISTRICT FEASIBILITY STUDY

SUMMARY OF EXTERNAL STAKEHOLDER INTERVIEWS

The Boone Central School District is attempting to determine the feasibility of their options regarding the Boone Central Middle School located in Petersburg, which includes rehabilitating the current middle school building, constructing a new building in Petersburg, or relocating to a new campus in Albion. To ensure the feasibility study adequately addresses the perspective of the public affected by this decision, a series of interviews were held with external stakeholders to identify their primary concerns.

One-on-one interviews with these community stakeholders were conducted from March 8th to 12th, 2019 to gain a better idea of key issues the school board could address within and beyond the scope of the feasibility study.

This community engagement benefits all affected parties associated with the school district by furthering a relationship that provides opportunities for public participation in creating a preferred course of action. The insight gained from these interviews will help the school district create a plan related to the feasibility study that will be prepared for the district.

STAKEHOLDER OUTREACH

The Boone Central School District consists of Boone Central High School (located in Albion), Boone Central Middle School (located in Petersburg), Boone Central Elementary School (located in Albion), and ABC Preschool (located in Albion). These Boone Central schools were created when the Albion and Petersburg school systems merged in 2001 in order to provide a greater offering of academic programs and extracurricular activities.

A total of 10 individual stakeholder interviews were conducted in person and over the phone. Those interviewed included Albion and Petersburg community members from all walks of life—local business owners, parents and grandparents of school district students, rural, and members of various community boards and committees.

ANALYSIS OF RESPONSES

Notes from each interview were transcribed and a content analysis was performed. The responses to each question were studied and analyzed to identify recurring keywords and concepts. The following is an overview of the questions asked of each individual stakeholder and an analyzed response to each question.

JEO CONSULTING GROUP, INC.
11717 Burt Street, Suite 210
Omaha, NE 68154-1510
402-934-3680

1. **What do you believe is the most pressing issue facing the school district from a management perspective?**
   Budgetary concerns and the logistics required to operate two separate campuses were the most frequently recurring answers from the external stakeholders.

2. **Which issue do parents and other community members think is more important (1) Quality of Education or (2) Cost of Education?**
   Stakeholders emphasized the greater importance of quality of education but noted that many, particularly those in the agriculture community, are more concerned about the cost.

3. **What type of concerns or comments do you hear about children commuting from Albion to attend school in Petersburg and vice-versa?**
   While several stakeholders stated that they do not hear these concerns, others primarily mentioned concerns about the time, safety, and cost of the current transportation arrangement.

4. **What do you believe are the direct economic benefits for your community created by having a school in your town?**
   Nearly every response indicated that having a school in the community would bring population growth, as the school would attract families to move to the town, and benefit local businesses.

5. **What direct benefit do you receive from the Boone Central School(s) being in your town (economic or social)?**
   The primary response from stakeholders involved the convenience and peace-of-mind of having their children or grandchildren attending school in the same town in which they live.

6. **What possible divisive issues and concerns remain from the district schools' merger and any subsequent bond or other funding initiatives?**
   Increasing the financial burden on taxpayers, particularly following the last bond initiative, would not be well-received. There also seems to be a lack of trust in the school board's follow-through in what they say they will do, evidenced by the failure to change the school's mascot and colors following the merger and the continued use of the Petersburg building 14 years after the public was told it would be closed five years after the completion of the merger.

7. **Are citizens aware of the real condition of the middle school?**
   Responses to this question were mixed. Some stakeholders felt that the community, especially those in Petersburg, are aware of the conditions of the school while others stated their belief that few people are aware of the actual conditions and their severity. Some stakeholders voiced concerns regarding the severity and breadth of the building's issues, while others emphasized that the facility has been well-maintained and is more than adequate to accommodate the education of the students.

8. **Who are the community leaders or vocal citizens that tend to weigh-in on school district issues in Petersburg and Albion (either for or against an issue)?**
   Individuals were suggested by multiple external stakeholders; those names have been removed from the analysis for protection of privacy.

9. **How do you learn about the happenings of the school district?**
   It appears that there are a variety of sources through which these external stakeholders receive news about the school district. Their means primarily include:
   - Internet and social media
   - Newspaper outlets
   - Word of mouth

10. **What is the biggest challenge we will face in addressing the best option for Boone Central's middle school?**
    Stakeholder responses illustrated the variety and complexity of issues involved with this study. Many mentioned the issue of cost and the difficulty of getting the taxpayers to vote in favor of another bond. Another prevalent response was questioning whether Albion has the capacity to take on any additional students in the existing school buildings or to find a site to build a middle school with existing issues with traffic and parking. Several stakeholders also addressed the intensity of personal feelings involved and the importance of educating and bringing together the public on a decision.

BOONE CENTRAL MIDDLE SCHOOL FEASIBIITY STUDY

JUNE 7, 2019

THE COST ANALYSIS OF OPTIONS FOR THE BOONE CENTRAL MIDDLE SCHOOL: ALBION OR PETERSBURG?

The Boone Central Board of Education has been working to determine the feasibility of the current location of the Middle School. To assist in determining the best economic solution, JEO Consulting Group, Dr. Ernie Goss & Associates, and Wilkins Architecture Design Planning were hired to provide and analyze specific information about the feasibility of the Middle School.

The purpose of the feasibility study was to obtain an objective analysis that would be used to assist the Board of Education in better understanding the costs of making necessary infrastructure repairs of the aging facility as well as modernizing the classrooms to provide our children with 21st Century educational experiences.

The goal of the study was to provide the Board with an overall rate-of-return to county residents, businesses and other organizations in the county for the best use of taxpayer funds.

This document provides a brief overview of the information and details derived from the work of the three consulting agencies. Full study documents can be found on the Boone Central School webpage.

In January, Wilkins Architecture Design Planning, LLC, along with consulting engineers from Engineering Technologies, Inc. performed an onsite facilities assessment of the Petersburg campus. The onsite evaluation observed the current condition of the building envelope (roof, walls, windows, structure, etc.), the mechanical and electrical systems, safety and security systems, energy and operating efficiency, plumbing systems and also noted specific instances where the campus is not in compliance with the Americans with Disabilities Act (ADA). In addition, the utilization of the current building space was evaluated.

The primary objective of the facilities assessment was to determine the probable cost of bringing the building up to current codes and standards. An opinion of probable cost was developed by Wilkins Architecture Design Planning. The ADA code renovations, mechanical, electrical, fire safety compliance, and security estimates aided in determining the overall feasibility of the Middle School. In addition to providing the probable cost for renovation of the Petersburg facility, drawings and cost estimates were provided for the possible construction of a replacement facility at both Petersburg and Albion.

To ensure that the feasibility study adequately addressed the perspectives of the public affected by this decision, one-on-one interviews with external stakeholders were conducted in March by JEO Consulting Group. A total of 10 individual stakeholder interviews were conducted in person and over the phone. Those interviewed included Albion and Petersburg community members including business owners, parents and grandparents of school district students, rural residents, and members of various community boards and committees. JEO compiled the key impressions from the interviews and provided the Board with an analysis of the responses, recommendations and considerations for how to approach the future involvement, education, and communication with the community. This information also aided in determining the overall feasibility of the Middle School.

A subsequent study completed by Dr. Ernie Goss and Associates was developed to provide a cost benefit analysis of possible options for the Middle School developed by Wilkins Architecture Design Planning. The feasibility study took into consideration enrollment projections, cost of renovation and/or construction, transportation costs, utility and maintenance costs, and employment costs.

PETERSBURG FACILITY ASSESSSMENT

The facility assessment completed by Wilkins Architecture Design Planning thoroughly evaluated the building to assist in gaining an overall understanding of needs. The study noted, "Boone Central Schools is to be commended for taking such good care of its facilities. It is obvious that they are well cared for and maintained. As with all facilities of the age and history of the Petersburg building, there are a significant number of conditions that are not in compliance with current codes and standards."

The assessment document identifies those conditions in greater depth; a brief overview is outlined below.

Petersburg Campus Overview

Original Three-Story Building Constructed in 1929

Gymnasium, Locker Rooms, Kitchen, Industrial Tech Area Addition in 1968

Administrative Offices, Classrooms, Lunch Room, Work Room, and Ramp Addition in 1990

Media Center, Computer Lab, Music Room, Art Room, Weight Room addition in 1997

Main Floor/Terrace Level of 1929 Building = 28,945 sq. ft.

Second Floor of 1929 Building = 4,900 sq. ft.

Third Floor of 1929 Building = 4,900 sq. ft.

Elevated Art Room = 2,982 sq. ft.

Total Approximate Area = 41,727 sq. ft.

Enrollment = 117

Capacity = 375

Americans with Disabilities Act Compliance

Over 10,000 SF of the building is not accessible to a person confined to a wheelchair. In addition, the wheelchair lift to the second floor reduces available egress when not in use; severely restricts egress width when in use. An elevator is recommended for the 1929 portion of the building; no practical recommendation for providing access to the art room and weight room.

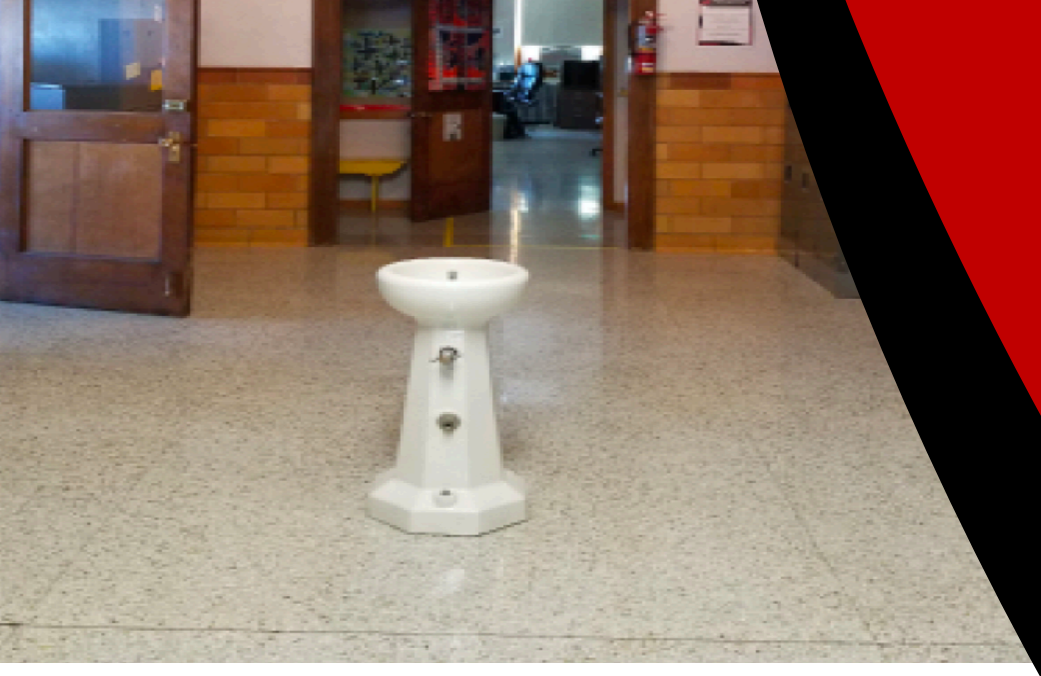
Sinks and ranges are not accessible to persons confined to a wheelchair in Family & Consumer Science classroom. ADA mandates that at least one sink and one range must comply. Recommendation to remodel portion of this room and replace range with ADA compliant model.

Telescoping bleachers in gymnasium are not ADA and do not meet current safety and building code standards; no wheelchair seating areas; no defined aisles and handrails. Bleachers are "grandfathered" therefore replacement is not required, but rather recommended in order to comply with current codes and standards.

Ramp at terrace level is not ADA compliant; incline exceeds limitation and there is no level landing in front of the interior vestibule door. Recommendation to relocate vestibule door, rebuild ramp and include level landing that meet code requirements.

Restrooms in gymnasium lobby are not ADA compliant; neither have a stall that is 60 inches wide, nor do either have the appropriate knobs required to meet ADA code. There is no practical solution to this issue. If the urinal from the boy's restroom and a water closet from the girl's restroom were removed and the space remodeled to meet ADA codes, the building would still be under a code violation by not providing enough plumbing fixtures based on occupancy load.

Restrooms on terrace level are not ADA compliant; pathway does not allow for a 90 degree turn in a wheelchair. Entrance to Nurse's Office is not ADA compliant; clearance is less than required. Recommendation to remove and rebuild walls to meet ADA code requirements.



The assessment included an evaluation of the following:

- **Roofs**
- **Walls**
- **Windows**
- **Finishes**
- **Structure**
- **Life Safety**
- **Accessibility**
- **Safety and Security**
- **Energy Efficiency**
- **Program Efficiency**
- **Operating Efficiency**
- **Mechanical Systems**
- **Ventilation Systems**
- **Plumbing Systems**
- **Electrical Systems**
- **Lighting**
- **Receptacles**
- **Circuits**
- **Code Compliance**

Energy, Program and Operating Efficiency

Presently the building contains a number of spaces that are either unused completely or under-utilized, but are still being maintained, heated and/or cooled. The heating equipment is controlled by stand-alone electric thermostats; no building management system is in place. It is recommended that a digital temperature control be installed to increase energy efficiencies.

Ventilation Systems

Overall, the ventilations quantities in the facility are well below the current indoor Air Quality guidelines. The kitchen exhaust hood doesn't appear to meet the current mechanical codes and is not of adequate size to properly remove heat and grease laden vapors from the cooking area. The kitchen does contain a mechanical dish washing system, but does not utilize any type of exhaust system for steam and heat collection. It is recommended that the kitchen exhaust hoods be replaced with new that meet current mechanical codes and provide a proper makeup air system. The combustion air louvers for the boiler appear to be short on air volume required by the Mechanical Code. The facility ventilation system does not meet current Indoor Air Quality guidelines.

Life Safety

The fire escape from their third floor includes four code violations; a proper landing on the interior, proper landing onto the escape area, guardrails are spaced too far apart, and stairs are not wide enough for compliance. This fire escape is "grandfathered", although if any renovation work is done to the building these items would have to be addressed by replacing with a new fire escape that fully meets ADA

Heating Systems

The current low-pressure stream heating system for the 1929 portion of the building which utilized cast iron radiators has reached the end of its life due to normal wear. The rest of the building is heated in a variety of ways including an electric furnace, electric fine-tube radiators, a portable electric heater, three separate gas fired furnaces, four natural gas fired heat units in the gym, four forced air natural gas fired furnaces for the offices, classrooms, lunchrooms, and library, two additional forced air natural gas fired furnaces for the band room and two locker rooms. All of the gas furnaces appear to be at least 20 years old and most are not efficient. The condensing units connected to the furnaces are various ages and most are near the end of useful life. It is recommended that a new, efficient heating, ventilating and air conditioning system be provided to adequately condition and ventilate the facility, including exhausting at contaminated air stream locations. There is no boiler emergency shutdown switch located adjacent to the boiler room as required by State Codes.

Plumbing Systems

A majority of the soil, waste and vent piping and domestic water piping is as originally installed. One set of restrooms has been updated to meet ADA requirements; the remainder of the restrooms in the 1929 and 1968 addition do not meet ADA. The 1997 locker rooms have ADA lavatories and water closets, but not showers. The entire school is fed by a water meter located under a counter in a lower level classroom. There is no backflow preventer installed at the water service. The hot water is supplied by five separate hot water heaters ranging in size and age. It is recommended that the old restroom fixtures are replaced with new that meet ADA accessibility guidelines and that a backflow prevention device is installed at the water service entrance. It is also recommended that all existing galvanized steel domestic water piping be replaced to remove any lead from the drinking water system.

Fire Sprinkler and Alarm

There is no fire sprinkler system coverage. Any major work done in the facility would likely result in a fire sprinkler system being mandated. It is recommended that an automatic fire sprinkler system be installed to provide coverage for the entire facility and to help save insurance costs, in addition to the obvious safety benefit. The alarm system appears to be adequate and in fair condition, but does not meet current ADA guidelines. Automatic fire sprinklers are a life safety requirement of NFPA 13. It is recommended that a new voice evacuation capabilities fire alarm system be installed if an addition or renovation is planned.

Electrical Service and Distribution

There are four electrical services for the facility. Three of the panels are obsolete and in poor condition. The fourth panel was just recently installed. There are many distributions panels in the older parts of the facility which are in poor condition and are obsolete. Spare capacity and space is not available. There is not bonding jumper provided around the water meter, which is required by the National Electrical Code (NEC). ADA accessibility guidelines relating to electrical and mechanical systems have not been met. It is recommended that a new electrical service and appropriately sized, main distribution panel be installed.

Lighting, Receptacles, and Branch Circuits

A majority of the building utilizes a fluorescent fixture; most are in poor condition and lighting levels in several areas are not at an acceptable level for a learning environment. Emergency egress lighting is inadequate and exit lights do not have battery back-up or another source of emergency power as required by codes. Several classrooms lack adequate receptacles needed to support technology and other teaching and learning devices. GFCI outlets in the kitchen, locker rooms, and other areas have not been provided as required by NEC. It is recommended that new, more efficient LED lighting throughout the facility is installed.

Special Systems

A synchronous clock system has never been installed. Data and telecom cabling in several areas is not supported in accordance with current codes or standard installation procedures.

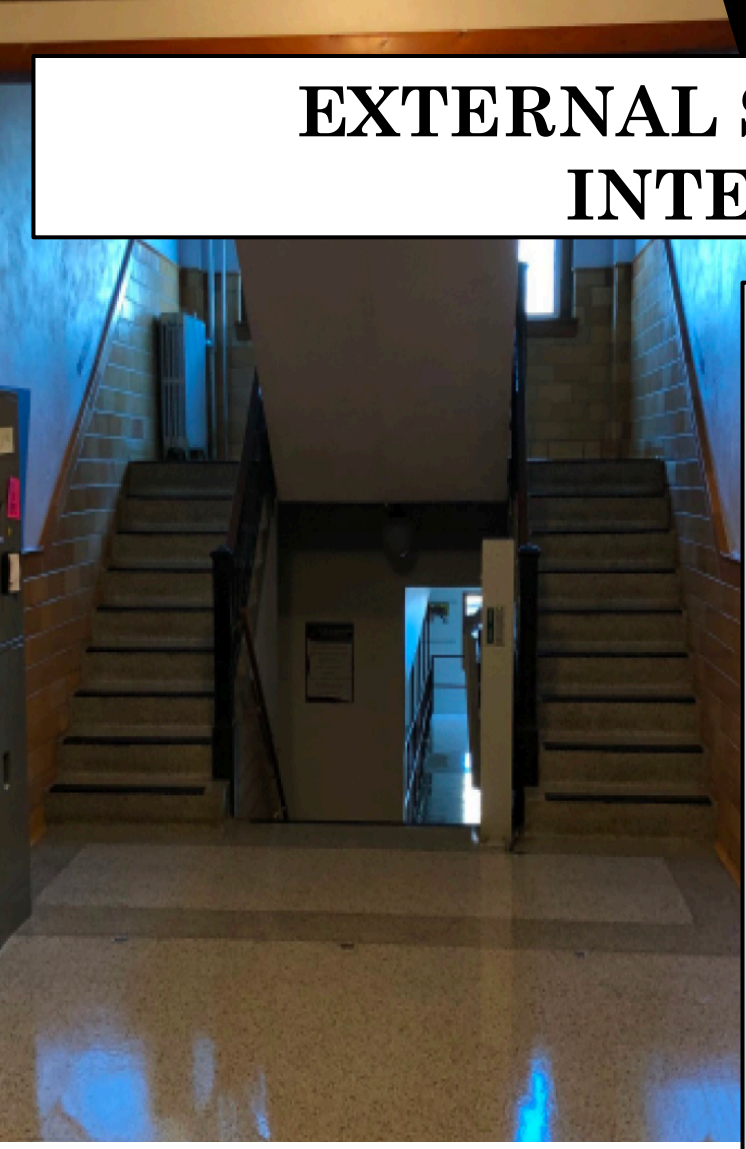
OPINION OF PROBABLE COST FOR RENOVATION OF MIDDLE SCHOOL

*Estimate does not include design and service fees.
*Estimate does not include necessary cost to bring facility up-to-date with 21st Century Learning requirements

Code and ADA Requirement Costs	$506,835
Mechanical Improvement Costs	$1,344,525
Electrical Improvement Costs	$511,000
Construction and Finance Fees	$568,289

= $2,930,649

EXTERNAL STAKEHOLDER INTERVIEWS



To ensure that the feasibility study adequately addressed the perspectives of the public affected by this decision, one-on-one interviews with external stakeholders were conducted in March by JEO Consulting Group. A total of 10 individual stakeholder interviews were conducted in person and over the phone. Those interviewed included Albion and Petersburg community members including business owners, parents and grandparents of school district students, rural residents, and members of various community boards and committees. JEO compiled the key impressions from the interviews and provided the Board with an analysis of the responses, recommendations and considerations for how to approach the future involvement, education, and communication with the community. This information also aided in determining the overall feasibility of the Middle School. Notes from the interview questions were transcribed and content analysis was performed by identifying keywords and concepts. Analysis of responses below:

Q: What do you believe is the most pressing issue facing the school district from a management perspective?
A: Budgetary concerns and the logistics required to operate two separate campuses were the most frequently recurring answers from the external stakeholders.

Q: Which issue do parents and other community members think is more important (1) quality of education or (2) cost of education?
A: Stakeholders emphasized the greater importance of quality of education but noted that many, particularly those in the agriculture community, are more concerned about the cost.

Q: What types of concerns or comments do you hear about children commuting from Albion to attend school in Petersburg and vice-versa?
A: While several stakeholders stated that they do not hear these concerns, others primarily mentioned concerns about the time, safety, and cost of the current transportation arrangement.

Q: What do you believe are the direct economic benefits for your community created by having a school in your town?
A: Nearly every response indicated that having a school in the community would bring population growth, as the school would attract families to move to the town, and benefit local businesses.

Q: What direct benefit do you receive from the Boone Central School(s) being in your town (economic or social)?
A: The primary response from stakeholders involved the convenience and peace-of-mind of having their children or grandchildren attending school in the same town in which they live.

Q: What possible divisive issues and concerns remain from the district schools' merger and any subsequent bond or other funding initiatives?
A: Increasing the financial burden on taxpayers, particularly following the last bond initiative, would not be well-received. There also seems to be a lack of trust in the school board's follow-through in what they say they will do, evidenced by the failure to change the school's mascot and colors following the merger and the continued use of the Petersburg building 14 years after the public was told it would be closed five years after the completion of the merger.

Q: Are citizens aware of the real condition of the middle school?
A: Responses to this question were mixed. Some stakeholders felt that the community, especially those in Petersburg, are aware of the conditions of the school while others stated their belief that few people are aware of the actual conditions and their severity. Some stakeholders voiced concerns regarding the severity and breadth of the building's issues, while others emphasized that the facility has been well-maintained and is more than adequate to accommodate the education of the students. Internet and social media.

Q: Who are the community leaders or vocal citizens that tend to weigh-in on school district issues in Petersburg and Albion (either for or against an issue)? *Names of community leaders or vocal citizens have been removed for protection of privacy.

Q: How do you learn about the happenings of the school district?
A: It appears that there are a variety of sources through which these external stakeholders receive news about the school district. Their means primarily include:

- Newspaper outlets
- Word of mouth

Q: What is the biggest challenge we will face in addressing the best option for Boone Central's middle school?
A: Stakeholder responses illustrated the variety and complexity of issues involved with this study. Many mentioned the issue of cost and the difficulty of getting the taxpayers to vote in favor of another bond. Another prevalent response was questioning whether Albion has the capacity to take on any additional students in the existing school buildings or to find a site to build a middle school with existing issues with traffic and parking. Several stakeholders also addressed the intensity of personal feelings involved and the importance of educating and bringing together the public on a decision.

ECONOMIC COST BENEFIT ANALYSIS

This study represents cost savings to the community as a whole; it does not represent actual realized reduction of expenses to the current operating budget of the school district. The demonstration of actual realized cost savings to the school district will be determined and communicated once a decision has been made by the Board of Education.

The Feasibility Study completed by Dr. Goss & Associates considered three possible options developed by Wilkins Architecture Design Planning in consultation with the Board of Education and Administration.

Major Findings of Study

The study concludes that building a middle school in Albion is the most cost-effective option for the Boone Central School District.

Renovation of Petersburg Facility Option
Complete renovation of the current MS facility addressing those items outlined in Facility Assessment evaluation completed by Wilkins Architecture Design Planning. Cost estimate includes service and design fees.

$3,475,180

Option A at Albion Campus
16,038 sq. ft. of new construction at Albion campus. Includes cost of possible demo and site work at Petersburg, and service and design fees.

$3,959,217

Option B at Albion Campus
13,454 sq. ft. of new construction at Albion campus. Includes cost of possible demo and site work at Petersburg, and service and design fees.

$3,360,570

*In addition to the three options represented in the feasibility study, other designs were considered including new construction at Petersburg. Alternative Petersburg design estimates were higher than the renovation option and not considered because overall cost benefit cannot be realized by the continuation of travel and commuting.

Relocating the students to Albion produces a yearly cost savings to the community of more than $470,000 in transportation costs, utilities and maintenance costs, and staffing costs.

For the 20-year period, 2019-2038, this transition provides an economic savings of $6.6 million; compared to $55,000 for the refurbishment of the Petersburg facility option.

Enrollment Projections
It is projected that between 2017 and 2025 the annual compound growth rate in total population is expected to decrease by 0.4% in Albion, and decrease by 3.1% in Petersburg.

It is projected that between 2017 and 2025 the annual compound growth rate of individuals under age 19 is expected to increase by 0.2% in Albion, and decrease by 6.5% in Petersburg.

Transportation Cost Savings

Currently 118 students attend the Middle Schools; 107 of the students are from Albion (or vicinity) and 11 of the students are from Petersburg (or vicinity).

The total annual economic cost benefit for transportation if the Middle School is located in Albion equals $144,925 or $1,952,645 in 2019 dollars over a 20-year period.

Utility and Maintenance Cost Savings

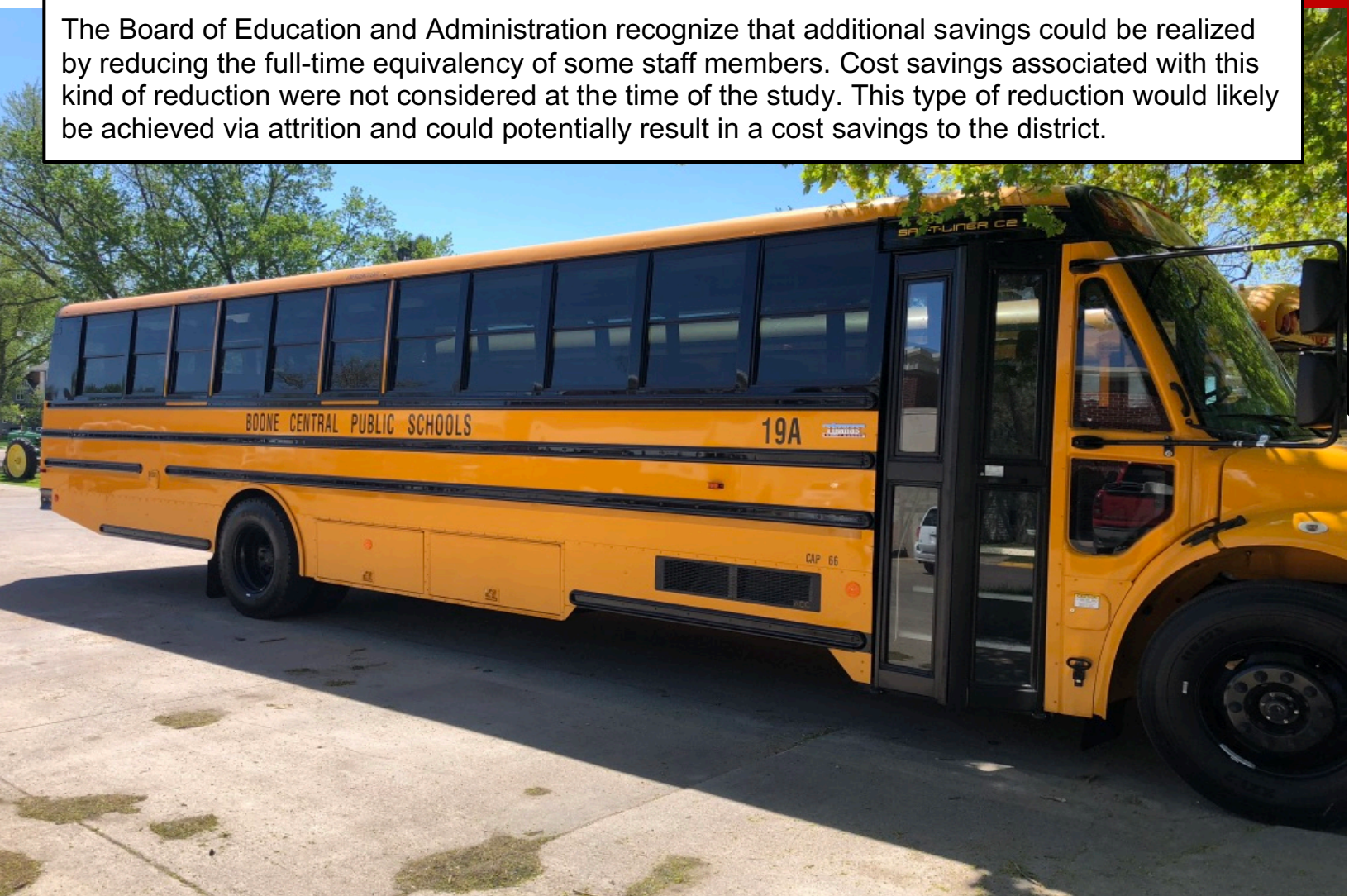
In 2018, the MS building expenditures for utilities and maintenance costs were $348,689. If refurbished, the estimated savings over a 20-year period would be $62,976. If relocated to Albion, the estimated savings over a 20-year period would be $1,467,113.

Staff Savings

With regards to moving the BCMS to Albion, there are cost savings that can realized immediately through staffing consolidations, efficiencies and reduction. In addition, there are potential costs savings that could be realized over time via attrition. For the purpose of this study, only immediate cost savings were considered.

Immediate realization of staff savings through staffing consolidations, efficiencies and reduction were determined by considering the amount of square footage, specific existing space to be utilized by all students, and consolidation of staff. Consolidation, efficiencies, and reduction would result in an immediate cost savings of $358,602 per year. Due to the potential of personnel work disruptions, specific details pertaining to staffing changes were not described in the study.

The Board of Education and Administration recognize that additional savings could be realized by reducing the full-time equivalency of some staff members. Cost savings associated with this kind of reduction were not considered at the time of the study. This type of reduction would likely be achieved via attrition and could potentially result in a cost savings to the district.



CONSTRUCTION FUNDING OPTIONS

The Boone Central Board of Education has thoroughly explored and considered possible funding options and believe that providing our students with the best educational opportunity is the #1 priority. Providing adequate instructional experiences, safe and secure facilities, and the best quality education is the main priority of the members of the Boone Central Board of Education and Administration.

Finance options have been carefully considered, however the “best” option cannot be considered until a definite decision has been made about the location of the Middle School. Determining the appropriate financing option for any capital construction project is a huge undertaking. The Board is committed to taking the necessary steps needed for this project and see it through to completion in the most feasible and efficient way possible.

As a Board, we are committed to making decisions with the best interest of our taxpayers in mind at all times. We are solely focused on funding options that would allow us to move forward in a timely manner and that will allow us to finance the project through a shift of expenditures. However, we know that other financing options could be considered. It is understood that in order to achieve this goal a very specific and strategic plan will need to be developed and considered.

CONCLUSION

Members of the Board of Education have reviewed the information provided by the consultants, including the current condition of the middle school facility, the cost of upgrades and repairs required for ADA code renovations, mechanical, electrical, fire safety compliance, and security. In addition, the transportation costs, utility and maintenance costs, construction costs, and staffing costs have been reviewed.

The recommendation of the Facility Committee based on results of the Facility Assessment, Community Stakeholder Interviews, and the Economic Cost-Benefit Analysis of Options for the Middle School will be made during the regular meeting and considered by all members of the Board of Education.

If a decision is made to relocate the Middle School to Albion the following outlines imminent items that will be determined and communicated with the community:

- Design and location of additional building space
- Construction design and contracting options
- Construction operating budget and funding options
- Timing for transition of the MS from Albion to Petersburg
- Public comment to receive feedback from community of Petersburg regarding the current MS facility.
- Design structure of Middle School following transition

BOONE CENTRAL SCHOOL DISTRICT

Middle School Feasibility Study Press Release

June 3, 2019

The Boone Central Board of Education has been working to determine the feasibility of the current location of the Middle School. To assist in defining the best economic solution three outside consultants were hired to provide and analyze specific information about the feasibility of the Middle School.

The purpose of the feasibility study was to obtain an objective analysis that would be used to assist the Board of Education in better understanding the costs of making necessary infrastructure repairs of the aging facility as well as modernizing the classrooms to provide our children with 21st Century educational experiences. The goal of the study was to provide the Board with an overall rate-of-return to residents, businesses and other organizations in the county for the best use of taxpayer funds.

In January, Wilkins Architecture Design Planning, LLC, along with consulting engineers from Engineering Technologies, Inc. performed an onsite facilities assessment of the Petersburg campus. The onsite evaluation observed the current condition of the building envelope (roof, walls, windows, structure, etc.), the mechanical and electrical systems, safety and security systems, energy and operating efficiency, plumbing systems and also noted specific instances where the campus is not in compliance with the Americans with Disabilities Act (ADA). In addition, the utilization of the current building space was evaluated. The primary objective of the facilities assessment was to determine the probable cost of bringing the building up to current codes and standards. An opinion of probable cost was developed by Wilkins Architecture Design Planning. The ADA code renovations, mechanical, electrical, fire safety compliance, and security estimates aided in determining the overall feasibility of the Middle School. In addition to providing the probable cost for renovation of the Petersburg facility, drawings and cost estimates were provided for the possible construction of a replacement facility at both Petersburg and Albion.

To ensure that the feasibility study adequately addressed the perspectives of the public affected by this decision, one-on-one interviews with external stakeholders were conducted in March by JEO Consulting Group. A total of 10 individual stakeholder interviews were conducted in person and over the phone. Those interviewed included Albion and Petersburg community members including business owners, parents and grandparents of school district students, rural residents, and members of various community boards and committees. JEO compiled the key impressions from the interviews and provided the Board with an analysis of the responses, recommendations and considerations for how to approach the future involvement, education, and communication with the community. This information also aided in determining the overall feasibility of the Middle School.

A subsequent study completed by Dr. Ernie Goss and Associates was developed to provide a cost benefit analysis of possible options for the Middle School developed by Wilkins Architecture Design Planning. The feasibility study took into consideration enrollment projections, cost of renovation and/or construction, transportation costs, utility and maintenance costs, and employment costs.

Prior to the Regular Board of Education meeting scheduled for June 10th, 2019 a Special Meeting will be held to present the details of the feasibility study. The Special Meeting will begin at 6:30 p.m. in the Boone Central Middle School Library in Petersburg. Feasibility Study documents will be available via the school's website on Friday, June 7th. In addition, agendas for both the Special Board Meeting and the Regular Board meeting will be available via the school's website on Friday.

Boone Central Schools
Petersburg Campus
Facilities Assessment

June 7, 2019

WILKINS

ARCHITECTURE | DESIGN | PLANNING

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1. Executive Summary

On January 4, 2019, Wilkins Architecture Design Planning LLC (Wilkins ADP), along with consulting engineers from Engineering Technologies, Inc. performed an onsite facilities assessment of the Petersburg campus of Boone Central Public Schools. The Petersburg campus functions as the middle school for the school district with grades 6th, 7th and 8th grade being hosted on this campus. Current enrollment for the Petersburg campus is approximately 117.

The onsite evaluation observed the current condition of the building envelope (roof, walls, windows), the mechanical and electrical systems, and also noted specific instances where the campus is not in compliance with the Americans with Disabilities Act (ADA). In addition, the program and utilization of the spaces and rooms within the building were evaluated with input and assistance from Mr. Tanner Schutt, Principal of the Petersburg campus. The primary objective of the facilities assessment is to determine the probable cost to bring the building up to current codes and standards.

Boone Central Public Schools is to be commended for taking such good care of its facilities. It is obvious when touring the schools that they are well cared for and maintained. As with all facilities of the age and history of the Petersburg building, there are a signficant number of items and conditions that are not in compliance with current codes and standards. Not all of the items observed and noted on the assessment fall into the category of needing immediate attention. Some of the noted items are "grandfathered" in and as such no immediate attention is required until the at which a major overhaul of the building were to occur, or if an item was being replaced. Where possible, each identified item is given an explanation as to its degree of urgency. If all of the noted items are addressed and the building is brought up to current codes and standards the estimated cost if the work, if the work were to take place in one project, is $2,931,190.

The Petersburg Campus At-a-Glance

- Original Three-Story Building Constructed in 1929
- Additions – 1968 (Gymnasium, Locker Rooms and Kitchen, Industrial Tech Area, constructed as a stand-alone building)
- 1990 (Addition to link 1929 building to 1968 building and contains Administrative Offices, Classroom, Lunch Room, Staff Work Room and Ramps)
- 1997 (Media Center, Computer Lab, Music Room, Art Room, Weight Room and Locker Rooms)

Boone Central Public Schools - Petersburg Campus

Main Floor/Terrace Level of 1929 Building = 28,945 SF

2nd Floor of 1929 Building = 4,900 SF

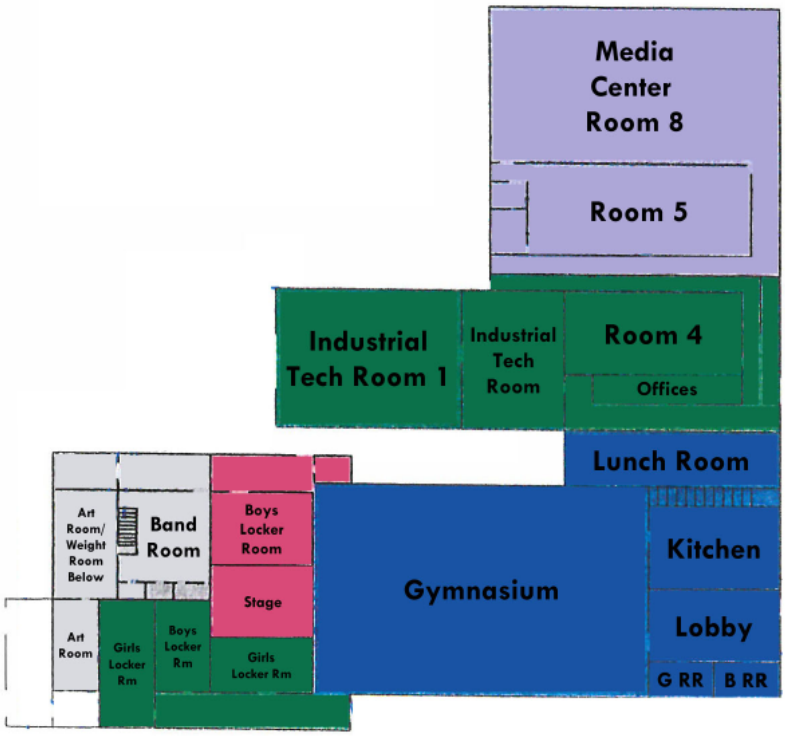
3rd Floor of 1929 Building = 4,900 SF

Elevated Art Room = 2,982 SF

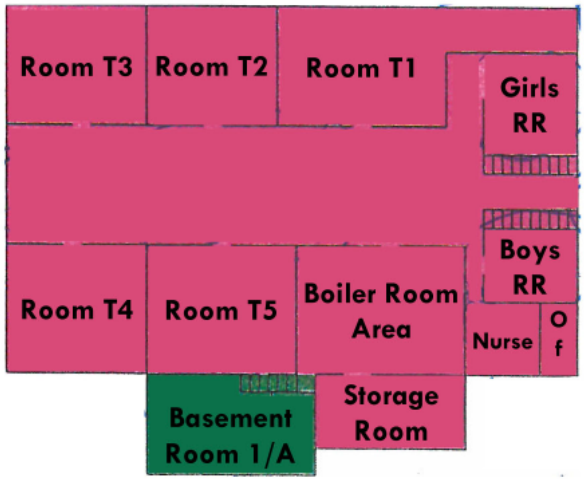
Total Approximate Area = 41,727 SF

Enrollment: 117

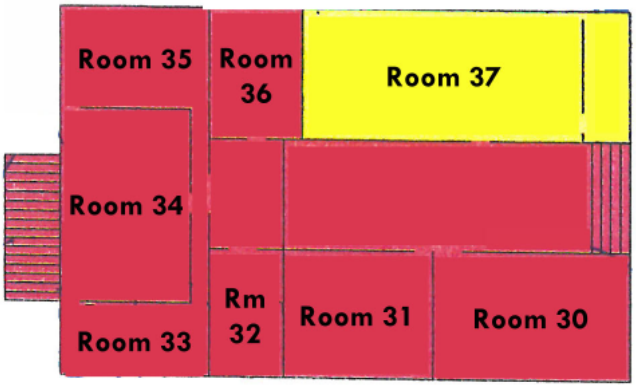
Capacity: 375



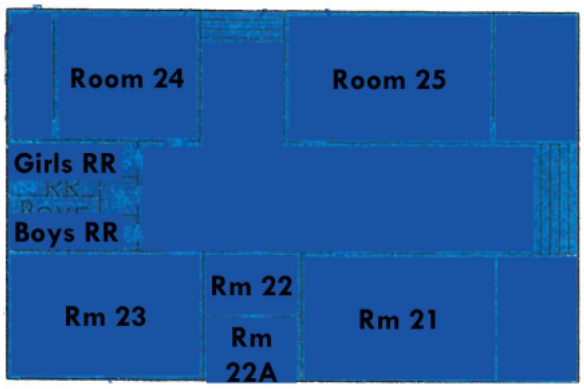
Main Level



Terrace Level



Third Floor



Second Floor

Boone Central Middle School - Petersburg Campus

Building Envelope

Roofs

The 1929 building has a newer (3 to 4 years old) ballasted membrane roof. The roof is in good condition and still has an active warranty of over ten (10) years remaining.

The 1968 gymnasium, kitchen and locker rooms building has a standing seam metal roof that was installed in 2012. This roof is also in good condition and is still within its twenty (20) year warranty.

The 1997 media center computer lab addition features an asphalt shingle roof, also installed in 2012. This roof is in good condition as well.

Walls

All of the exterior walls on the building appear to be in fair to good condition. There were no areas of visible deficiency to where immediate action is warranted.

Windows

According to facilities staff there are no original windows remaining on the 1929 and 1968 buildings. The oldest windows on those buildings are eighteen (18) years old, they are all double pane, insulated windows and all appear to be in good condition.

Finishes

Most of the 1929 building contains terrazzo flooring that is original to the building with the exception of the Terrace Level which has mostly carpeted floors. The terrazzo flooring is in excellent shape and is one of the most durable flooring surfaces in existence. The carpet was observed to be in fair to good condition, with only isolated instances where carpet should be considered for replacement. The only area where carpet/flooring should be considered for replacement would be at the elevated portion of Room 34 on the Third Floor.

Room 23 on the Second Floor of the 1929 contains a number of finishes that are in poor condition, including laminate countertops, residential grade wood casework and older wood paneling.

The 1968 and 1997 buildings contain a variety of finishes including carpet, vinyl composition tile and wood athletic flooring. All of these floor surfaces appear to be in fair to good condition.

Structure

All of the structure on all of the buildings was observed to be in good condition. Room 33 on the Third Floor in the 1929 does exhibit some minor deflection and creaks slightly when walking across the floor surface; however, there is no structural case for any remediation. The floor in the Corridor on the Terrace Level in the 1929 building does appear to be unlevel in spots, but it doesn't seem to merit the need for any corrective action.

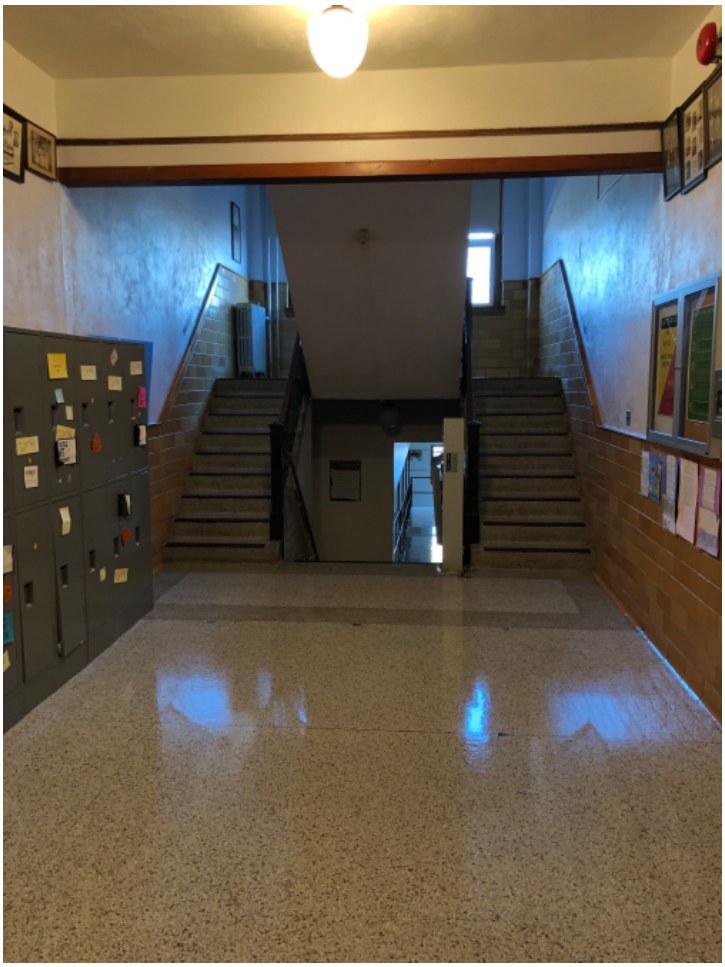
Recommendations

No action is necessary at the present time. All of the roofs appear to be in good to excellent condition, have active warranties, and according to facilities staff, there are presently no leaks at any of the roofs. Most of the other components of the building envelope, structure and finishes also appear to be in fair to good condition. Items needing attention would include the carpet in Room 34 (1929 building) and all of the countertops and casework and paneling in Room 23 (1929 building).

Deficiency

Americans with Disabilities Act Compliance

Approximately 10,864 SF of the building's 41,727 SF are not accessible to person's confined to a wheelchair. Those spaces would include the entire third floor in the 1929 building and both the art room and weight room in the 1997 addition and the coach's office that is located above the kitchen in the 1968 building. In addition, the second floor of the 1929 building is only accessible by the use of a wheelchair stair lift. The wheelchair stair lift is not ideal as it reduces the amount of available egress width, even when it is not in use. When the lift is in use it not only severely restricts egress width but it also impedes the flow of normal foot traffic up and down the stairs.



Recommendation

To provide wheelchair access to all floors of the 1929 building a three stop elevator could be installed. A possible location for an elevator could be along the south wall of Rooms T1, 25 & 37. The only practical way to access the art room and the old weight room would seem to be through the construction of a ramp or the install of a wheelchair stair lift.

Deficiency

Americans with Disabilities Act Compliance

At the Family & Consumer Science Classroom 23, none of the sinks or ranges are accessible to persons confined to a wheelchair. The ADA mandates that at least one sink and one range must comply with ADA. In both instances the sinks and ranges are too high (34" is the max), the controls are not within the specified reach limits, and there is no knee space at any station.

Recommendation

Remodel the north side island station to make it accessible and comply with ADA, and in addition, replace one of the ranges with an ADA compliant model.

Deficiency

Americans with Disabilities Act Compliance

At the Gymnasium, the telescoping stands/bleachers are not ADA compliant, nor do they meet current safety and building code standards. The bleachers do not have wheelchair seating areas (cutouts) and also lack defined aisles and intermediate handrails at the aisles.

Recommendation

The current telescoping stands/bleachers are “grandfathered” in so nothing must be done immediately; however, if the school district were to consider replacing the bleachers then the new bleachers would of course need to comply with current codes and standards.

Deficiency

Americans with Disabilities Act Compliance

At the south end of the Terrace Level the ramp in the vestibule is not ADA compliant. The incline of the ramp is steeper than 1:12 and there is no level landing in front of the interior vestibule door.

Recommendation

Move the interior vestibule door further into the school building, rebuild the ramp so that it has an incline of 1:12, make sure there is a level landing that extends 54 inches from the door and is 60 inches wide minimum.

Deficiency

Americans with Disabilities Act Compliance

On the Terrace Level the hallways that lead to both the Boys and Girls Restrooms are not ADA compliant. ADA requires a 42 inch wide clear pathway leading up to an opening that requires a 90 degree turn with a wheelchair. The hallways leading to these restrooms are less than 42 inches wide.

Also at the Terrace Level on the Boys Restroom side, the entrance to the Nurse's Office is not ADA compliant. On the corridor side of the door, 12 inches of clearance is needed and there is approximately 4 inches.

Recommendation

At the hallways leading to these restrooms and the Nurse's Office remove the north side wall and rebuild the walls 42 inches clear away from the existing south walls.

Deficiency

Americans with Disabilities Act Compliance

At the Gymnasium Lobby both restrooms are not ADA compliant. The primary issue in both restrooms is that the ADA stall is not 60 inches clear wide. In addition the door knobs, as with the other knobs throughout the building are not ADA compliant.

Recommendation

The only apparent solution available to make these restrooms ADA compliant would be to eliminate the urinal in the Boys Restroom and make the ADA stall a compliant 60 inches wide and in the Girls Restroom eliminate the second water closet and make the ADA stall a compliant 60 inches wide. By eliminating these two plumbing fixtures the building then creates another code violation by not providing enough plumbing fixtures based upon the occupant load of this portion of the school which includes the Gymnasium. There is no practical solution to resolve the issues at the Gym Lobby.

Deficiency

Life Safety

In Room 33 on the Third Floor there is what appears to be an overhead coiling door that is original to the building. The overhead coiling door does not have a lock on it to secure it in an open position and there is no safety device present that would reopen the door if it were to come down on top of a person.

Recommendation

According to school staff this coiling door is rarely, if ever, used. The coiling door should be removed, or if it's still needed, then a new horizontal operable partition wall should be installed.

Deficiency

Life Safety

In Room 34 on the Third Floor there are four code violations present. At the door to the fire escape there is not a proper landing in place on the interior side of the door leading to the fire escape. In addition, the door in its open position encroaches too far onto the fire escape landing. The third and fourth code violations in this area involves the actual stair itself. The guardrails on the fire escape stair do not meet current code as the steel pipes on the guardrail are too far apart. According to current code, the guardrail must not allow a 4 inch sphere to pass through it. Also, the stair is not wide enough. The stair must be a minimum of 44 inches wide to be compliant with current code(s).

Recommendation

As with some other issues in and around this building, all of these items are not currently a violation of code since they are “grandfathered” in. If a major renovation of the building were to occur these items would have to be addressed. The solution would be a new fire escape stair with a proper landing and guardrails and the landing on the inside of the building would need to be fixed as well.

Deficiency

Security

This is not a violation of code, but the Communications closet (Data Room) just off of Room 24 on the Second Floor was not locked and sits inside of a storage room. Having information technology equipment out in the open and shared with a storage closet seems to be placing expensive equipment in a vulnerable position where it could be accidentally damaged or vandalized.

Recommendation

Enclose the information technology equipment inside of its own locked closet.

Deficiency

Maintenance Item

At the Family & Consumer Science Classroom 23 many of the laminate countertops are in poor condition and some of the countertops are no longer supported sufficiently. The cabinets appear to in fair condition but should be updated as well.

Recommendation

Replace all of the countertops in this room with solid surface countertops to better hold up to the rigors of a classroom lab environment. Replace all of the cabinets/casework in this room with plastic laminate cabinets to again better handle the rigors of a school lab environment.

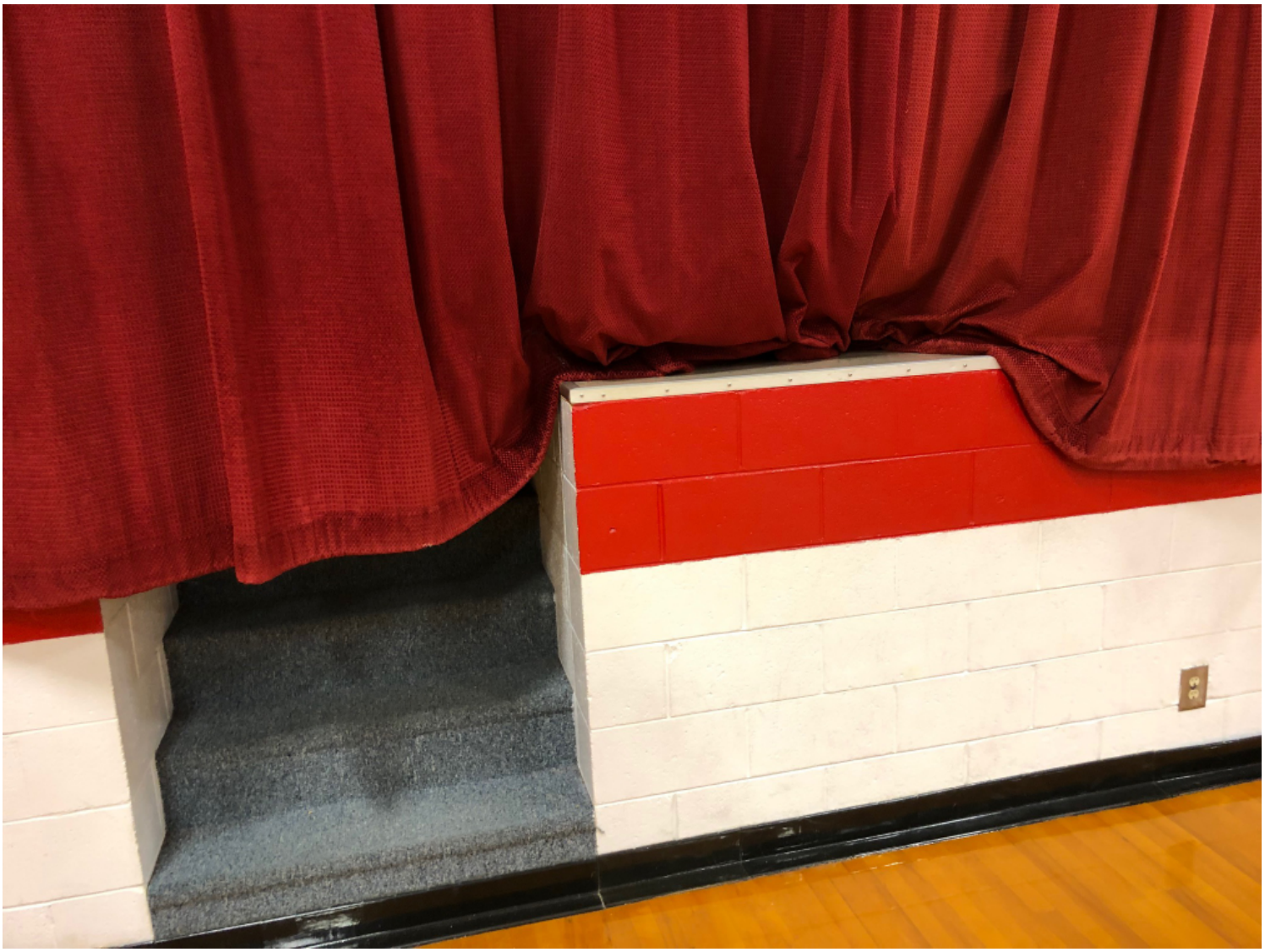
Deficiency

Safety

This is not a violation of code, but a safety issue. At the Gymnasium there is a long stretch of unprotected edge of the stage on both sides of the padding behind the basketball stop that is a safety hazard. The corners of the stage edge where the stairs are located is especially a risk.

Recommendation

Install wall/edge padding along the entire length of the stage.



Deficiency

Safety, Security and Energy Efficiency

This is not a violation of code. The building presently has no vestibule at the main entrance, nor does it have a vestibule at the gym lobby. The presence of a vestibule especially at main entrances and high traffic areas drastically reduces the amount of heat loss from entering and exiting a building. In addition having a secure vestibule with direct line of sight from staff to the interior secure door on the vestibule is also the safest procedure.

Recommendation

Add a secure entrance vestibule out in front of the current entry doors. Ensure that staff has appropriate visual access to what would be the interior set of vestibule doors.

Deficiency

Program and Operating Efficiency

This is not a code issue. Presently the building contains a number of spaces that are either unused completely or under-utilized. Those rooms/spaces include the former Industrial Technology area(s), Basement Classroom 1/A, the Weight Room, and Room 31 on the Third Floor. Despite these spaces not being used, or rarely used, they are still being heated minimally which is a waste of district resources.

Recommendation

Space usage and operating costs need to be properly evaluated within the comprehensive study of the entire school district's use of a two (2) campus model.

3. Mechanical

Purpose of Evaluation

Engineering Technologies, Inc. was retained to do an evaluation of the existing mechanical and electrical systems for the Boone Central Public School Facilities at Petersburg, NE.

Information contained in this report relates to the adequacy of the existing mechanical and electrical systems, condition of equipment, code deficiencies, and life safety issues of the existing mechanical and electrical systems.

Data for this report was based on casual field observation; and information obtained from existing drawings. Existing conditions were documented and our findings and recommendations have been included as a part of this engineering evaluation.

Middle School General Information - Petersburg, NE

The original three story school classroom building was built in 1929. In 1968 the gymnasium, locker rooms, and kitchen were built in a standalone structure not connected to the original building. It is also thought that the shop building was built at that time. In 1990 an addition was added that links the gymnasium to the original building adding administration offices, classroom, lunch room, and ADA ramps and lifts to the basement and first level of the building. The final additions were built in 1997 and added a media center, computer room, band room, art room, weight room, and two new locker rooms.

3.A Mechanical Deficiencies

A. Heating Systems

The original 1929 building consists of a low pressure steam heating system utilizing cast iron radiators. The steam system is not trapped and has no boiler feed pumps as the condensate gravity drains back to the boiler. The process for making up the system water level is manual and there is no backflow preventer in the piping, protecting the domestic water system. Steam is supplied from a 1978 Bryant natural gas fired boiler with 924 MBH output. The boiler is not reliable and has recently had some temporary repairs done. It appears to be at the end of its useful life. The heat is distributed throughout the building primarily by cast iron radiators.

Electric heating coils have been added in the last year to the blower coils units that cool the first floor of the 3-story and electric finetube radiators have been added to the basement classrooms and the restrooms. This work was done to provide some redundancy if the boiler failed.

Room 22 between the computer lab and family/consumer science room contains a portable electric heater. The shop and industrial tech areas have a gas fired furnace located within the shop.

The gymnasium utilizes four corner mounted forced air natural gas horizontal unit heaters. The locker rooms each have an 80% gas fired furnace located directly above the space. The kitchen also uses an 80% gas fired furnace that is located up on a mezzanine and is ducted above the lobby ceiling and discharges on the north wall of the Kitchen.

The 1990 Addition contains two forced air 80% natural gas fired furnaces, each located in the classroom closet. One furnace serves the administration offices and the other serves the classroom and lunch room. Air is supplied in the ceiling and utilizes a floor plenum for return air.

The 1997 Addition uses forced air 90% natural gas fired furnaces. The media center and computer room unit is located in a closet located in the computer room. Air is supplied and returned from the ceiling. The band room and the two locker rooms each have their own forced air natural gas furnace as well. The art room and weight room share a furnace, which is located in the storage area located under the art room. The whirlpool room located just off the gym and the weight room both contain an electric heater.

All of the gas furnaces appear to be at least 20 years old and most are not very efficient. The condensing units connected to these furnaces are of various ages, but most of the equipment is near the end of its useful life.

According to the school district, an asbestos abatement has been done at the facility, but a full study should be completed, if not already done, to determine the extent and locations of any other asbestos containing materials which may still be present.

The HVAC equipment is now controlled by stand-alone electric thermostats. There is no building management system which allows remote setpoint adjustment or scheduling of equipment and energy management.

B. Cooling Systems

This building does not contain a central cooling system. In the original building air conditioning is supplied to the basement from two electric blower coil units coupled with air cooled condensing units. A ceiling plenum is used to return air to the blower coil units and wall fans between the classrooms and hallway help circulate air between all spaces. Air conditioning is supplied to the first floor of the original building using electric blower coil units located above classroom ceilings coupled with air cooled condensing units located on the lower roof just outside the building. A window air conditioner is used for room 22 between the computer lab and family/consumer science room. The second floor classrooms have window air conditioning. The shop and industrial tech areas have a furnace located within the shop coupled with an air cooled condensing unit located at the exterior. The gymnasium does not have air conditioning.

The 1990 Addition is air conditioned by furnaces within the classroom closet which are coupled with air cooled condensing units located outside.

The 1997 Addition is air conditioned by furnaces coupled with air cooled condensing units located directly outside of the addition. The media center and computer room units are located in a closet located in the computer room. Air is supplied and returned from the ceiling. The band room and the two locker rooms each have their own furnace and air cooled condensing unit. The art room and weight room share a furnace/condensing unit, which is located in the storage area located under the art room.

C. Ventilation Systems

The restrooms in the basement of the original building have ceiling mounted, switch operated exhaust fans. The main restrooms for the original building are located on the first floor and do not have mechanical exhaust, utilizing operable windows only. The science classroom on the first floor has an exhaust fan located in the room. There are no restrooms located on the second floor.

The existing locker rooms in the 1968 addition have an exhaust and make up air combination unit located directly above the spaces. The Kitchen exhaust hood construction doesn't appear to meet the current mechanical codes and is not of adequate size to properly remove heat and grease laden vapors from the cooking area. A chemical fire suppression system is in place as required by the NFPA Code. The kitchen does contain a mechanical dishwasher but does not utilize any type of exhaust system for steam and heat collection. The kitchen does not utilize a make-up air system.

The gymnasium has a ventilation louver located at the north side of the gym. The restrooms located in the lobby do have ceiling mounted, switch operated exhaust fans. Overall the building ventilation quantities appear to be well below the current Indoor Air Quality guidelines.

D. Plumbing Systems

A lot of the soil, waste and vent piping and domestic water piping is as originally installed. It appears that galvanized steel domestic water piping was installed throughout the original facility. The 1968-1997 additions appear to have copper piping. Some of the original building water piping has been changed out to copper piping. Steel waste and vent piping appears to be prevalent throughout the original building, although some piping has been changed to PVC or cast iron. The plumbing piping in the facility appears to be in average condition based on its age. The basement restrooms in the original building were updated to meet the Americans with Disabilities Act Guidelines during the 1990 addition. The remainder of the restrooms in the original building and 1968 addition do not meet ADA and there are still some old fixtures that aren't in good condition. The 1997 locker rooms have ADA lavatories and water closets, but not showers.

The original building and the 1968 and 1990 additions have a 1-1/4" galvanized steel water service and a 1-1/4" water meter that feeds the entire school. The service is located under counter in classroom T1 in the basement of the original building. There is no backflow preventer installed at the water service or at the make-up piping to the boiler. A 1" cold water stub located directly at the water service is installed under grade and is routed below the 1990 addition to serve the 1968 Kitchen, Gym, and Locker Rooms. The 1997 locker rooms and art rooms are served by a second 1" PVC water service located in a utility room off of the band room.

There is one newer gas fired, 50 gallon domestic hot water heater for the original building. The 1968 addition has a water heater and water softener to serve the kitchen and gym lobby restrooms located above the men's restroom. The 1968 locker rooms are served by a water heater located on the stage. The 1997 locker rooms and art room addition has a 100 gallon, 197 MBH natural gas water heater located in a utility room off the band room.

None of the original building or any additions have fire sprinkler system coverage. If any major work is to be done in the facility, a fire sprinkler system would likely be mandated for the facility by the State Fire Marshal.

3.B Mechanical Recommendations

A. Upgrade the existing control systems with new digital temperature controls to allow better control and occupancy scheduling for all areas in the facility and increase system energy efficiencies. Provide a new, efficient heating, ventilating and air conditioning system to adequately condition and ventilate the facility, including exhausting at contaminated air stream locations and providing properly conditioned fresh, outdoor air into all normally occupied and learning spaces as recommended by ASHRAE Standard 62 for Indoor Air Quality.

B. Replace the existing kitchen equipment exhaust hoods with ones that meet current mechanical codes and provide a proper makeup air system.

C. Provide new automatic fire sprinkler systems to provide coverage for the entire facilities. A fire sprinkler system can also help save insurance costs in addition to the obvious life safety benefits.

D. Remove the old plumbing fixtures in areas which have not been remodeled and provide new fixtures which are operational and meet ADA accessibility guidelines. Provide a new backflow prevention device at the water service entrances to assure no cross contamination of the public water system.

E. Remove the existing galvanized steel domestic water piping where it is still in place and provide new copper water piping systems. This would remove any lead from the drinking water system.

4.A Electrical Deficiencies

A. Electrical Service and Distribution

There are four electrical services for the facility which extend from an overhead pole mounted transformer to main distribution panels. In the 1929 Building, there is a 400 amp 120/240 volt single phase main distribution panel that was installed recently and it has some spare capacity. In the 1968 Gymnasium, there is a 200 amp 120/240 volt single phase main distribution panel and a 400 amp 120/240 volt single phase main distribution panel Those panels are obsolete and in poor condition. The electrical service has no spare capacity or space for future loads. In the 1960's Shop Building, there is a 200 amp 120/240 volt single phase main distribution panel.

There are many distribution panels in the older parts of the facility which are in poor condition or are obsolete. Spare capacity and/or space for future loads is not available in most of these panels. There are a few newer, breaker style panels which are in good condition and would have parts available.

It did not appear that a bonding jumper was provided around the water meter, which is required by the NEC.

B. Lighting, Receptacles, and Branch Circuits

The majority of the facility utilizes T-8 fluorescent fixtures in the classrooms and some incandescent fixtures still exist in the 1929 corridors and restrooms. T-5 high bay fluorescent lightings is used above the playing surface in the gym. Some of the light fixtures are in poor condition and lighting levels in several areas are not at an acceptable level for a learning environment. The newer lighting in the gym serves that space well.

Emergency egress lighting is inadequate in most areas of the building, including in stairways, corridors, and windowless classrooms and on the exterior of the building.

Exit lights do not have battery backup or another source of emergency power as required by codes.

Electrical receptacles throughout are a mix of non-grounding and grounding type devices. These appear to be in fair condition. For the most part, duplex outlets in locker rooms, restrooms within 6'-0" of sinks, on exterior of building, in shop or maintenance bays, and in the kitchen area did not appear to be ground fault circuit interrupter (GFCI) protected, as required by current codes or were nonexistent. Several classrooms and other areas are in need of additional receptacles and circuits due to new technologies, visual aids and other equipment, which has been added in the facility throughout the years.

C. Fire Alarm Systems

A Simplex fire alarm control panel is located in the north entry of the 1968 addition. Detection and notification was observed in most areas. Pull stations are installed at all exits. Fire alarm systems appear to be adequate and in fair condition, but this system may not handle future additions and/or major renovations. It did not appear that the gym had a fire alarm voice evacuation system, which is required by current NFPA codes.

D. Special Systems

A synchronous clock system was not observed. It appeared that all clocks were 120 volt plug in units or battery operated.

Data and telecom cabling in several areas is not supported in accordance with current codes or standard installation procedures.

CODE COMPLIANCE ISSUES

The buildings do not have coverage by an automatic fire sprinkler system, a life safety requirement of NFPA 13.

The combustion air louvers for the boiler in the original building appear to be currently short of the air volume required by the International Mechanical Code.

There are no backflow prevention devices on the water service entrance or boiler make-up water. This is recommended to assure that no cross contamination of water systems occurs and may be mandated by the City.

The facility does not meet ADA accessibility guidelines that relate to mechanical and electrical systems.

The facility ventilation system does not meet current ASHRAE Indoor Air Quality guidelines. Proper exhaust is not provided to remove odors and fumes from spaces and proscriptive amounts of fresh air is not being provided to all spaces for a healthy learning environment.

The current kitchen equipment hood construction and size does not meet the current International Mechanical Code and there is not proper makeup air.

Emergency lighting is not adequate and does not allow safe egress from the facility.

There are no boiler emergency shutdown switches located adjacent to boiler room doors for most of the boilers. These shutdown switches are required in accordance with current State Boiler and Pressure Vessel Codes.

Exit signage does not have battery backup capabilities, correct chevron sizes, and additional signs are needed to mark egress openings. This is required by Life Safety Codes.

The Fire Alarm notification system does not appear to meet current ADA guidelines. A fire alarm voice evacuation system has not been provided for the gyms to satisfy current NFPA codes for a place of assembly.

GFCI outlets have not been provided in the kitchen, locker rooms, and other areas as required by the NEC.

4.B Electrical Recommendations

A. Provide boiler shutdown switches and engraved labels as required by the State Boiler and Pressure Vessel Codes.

B. Install a new electrical service and main distribution panel or switchboard for the school, sized for the entire facility and future additions.

C. New branch circuit panels should be installed throughout the school. Panels should be sized for existing and future loads.

D. Provide new, more efficient LED lighting throughout both facilities. Light fixture selections shall be made to provide the most cost effective, efficient, and appropriate style for the area served and lighting levels shall be designed to the specific task. Additional lighting controls should be utilized, including occupancy sensors, time based controls, photocells, etc., as required by state energy codes.

E. Update all emergency egress and exit lighting throughout.

F. Provide additional receptacles and circuits in classrooms and other areas, as needed. Provide GFCI type outlets for areas required by the NEC, including locker rooms, restrooms, within 6'-0" of sinks, in kitchens, and on exterior of buildings.

G. If an addition or major renovation is planned, then a new addressable fire alarm system should be installed throughout, with voice evacuation capabilities for the gyms.

H. If an addition or major renovation is planned for the facility, then a new synchronous clock, class bell, and paging system should be considered.

Opinion of Probable Cost

Code and ADA Improvement Costs:

Three-Stop Elevator at 1929 Building (Includes shaft and M/E costs)	$215,000
New Telescoping Stands (Bleachers)	$87,000
New Code Compliant Fire Escape	$23,000
Demo/Concrete/Walls/Doors/Finishes/MIsc.	$181,835

Mechanical Improvement Costs:

Upgrade Controls, HVAC System	$1,082,000
Replace Kitchen Exhaust Hood, Add Make-up Air	$32,000
Install Fire Sprinkler System	$132,525
Upgrade Plumbing Fixtures	$42,000
Replace Galvanized Water Piping w/ Copper	$56,000

Electrical/Special Systems Improvement Costs:

Upgrade Electric Service, Panels & Receptacles	$219,000
Replace Lighting with LED Fixtures	$198,000
Replace Fire Alarm System and Clock/Bell/Paging System	$94,000
Subtotal Construction Costs =	**$2,362,360**
Overhead (10%)	$236,236
Profit (5%)	$129,390
Builder's Risk (0.8%)	$21,828
Bond (1.5%)	$41,255
Contingency (5%)	$139,580
OPINION OF PROBABLE COST =	**$2,930,649**

NOTE: ALL PROJECTED COSTS REPRESENT 2019 CONSTRUCTION COSTS