SCHOOL IMPACT FEES - DRAFT

Prepared for:

Jefferson County, West Virginia

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EXECUTIVE SUMMARY

TischlerBise is under contract with Jefferson County to update its School Impact Fees. TischlerBise was the author of the County's 2003/2005 impact fees and has worked with the County's on impact fees since 1991. The County desires an update of its School Impact Fees to reflect the following:

1. Recent completion of Washington High School.
2. Determination of the need and calculation of credits for the bond issued to fund Washington High School.
3. Analysis of the feasibility of calculating a progressive school impact fee schedule based on housing unit size versus one fee by type of housing unit.

TischlerBise has included the new high school in the calculation of the current level-of-service (LOS). The general credit methodology has also been updated to reflect the outstanding debt service payments on the 2004 bond issue and associated bond levies.

TWO IMPACT FEE OPTIONS

The County's current School Impact Fees are assessed as a flat fee by type of housing unit. For example, a 1,500 square foot single family house pays the same School Impact Fee as a 3,500 square foot house. An emerging concept among impact fee academics and practitioners is a progressive impact fee schedule which varies by size of housing unit. Smaller housing units often have smaller household sizes and other demographics compared to larger homes. These differences have a direct relationship on the need for additional infrastructure capacity resulting in differences in impact fee amounts.

TischlerBise has designed two School Impact Fee options for the County Commission's consideration:

Option 1 – a flat fee schedule by type of housing unit similar to the County's current impact fee schedule (see Figure 1.A).

Option 2 - a progressive impact fee schedule under which the School Impact Fee for single family units vary by size (see Figure 1.B).

Note: impact fees for residential development are assessed per housing unit and collected when building permits are issued.

OPTION 1

Under this option, all single family housing units would be assessed the same impact fee amount regardless of size.

Figure 1.A: School Impact Fees – Option 1

Housing Type	*Elementary*	*Middle*	*High*	*All Grades*	*Credit*	***TOTAL***
Single Family Detached	$5,554	$3,210	$5,040	$13,805	($354)	**$13,451**
Duplex/Townhome	$3,326	$1,571	$2,324	$7,220	($367)	**$6,854**
Multi-family	$2,419	$785	$1,394	$4,598	($156)	**$4,442**
Mobile Home	$4,535	$2,356	$4,183	$11,074	($135)	**$10,940**

Pros:

- From an administrative perspective, this option is straightforward as new housing units are classified by type.
- The data, methodology, and calculations are the most clear-cut.
- Reduces opportunities to "game" the system as units are determined by type.

Cons:

- There is no variation in the fee amount to account for the different impacts of different sizes of single family units.
- No vertical equity which distributes burdens proportionately across homebuyers with different abilities to pay.

OPTION TWO

Under this option, single family detached housing units would be assessed based on the size of unit.

Figure 1.B: School Impact Fees – Option 2

Housing Type	*Elementary*	*Middle*	*High*	*All Grades*	*Credit*	***TOTAL***
Single Family Detached						
0-1,500 Square Feet	$5,102	$2,875	$4,427	$12,405	($237)	**$12,168**
1,501-2,500 Square Feet	$6,762	$3,728	$6,022	$16,513	($337)	**$16,176**
2,501-3,500 Square Feet	$7,856	$4,290	$7,073	$19,219	($466)	**$18,752**
3,501 or more Square Feet	$8,673	$4,709	$7,858	$21,240	($590)	**$20,650**
Duplex/Townhome	$3,326	$1,571	$2,324	$7,220	($367)	**$6,854**
Multi-family	$2,419	$785	$1,394	$4,598	($156)	**$4,442**
Mobile Home	$4,535	$2,356	$4,183	$11,074	($135)	**$10,940**

Pros:

- A progressive fee structure as smaller units pay less and larger units pay more.
- More precise assessment of infrastructure demand using local data.
- Enhanced vertical equity which distributes burdens proportionately across homebuyers with different abilities to pay.

Cons:

- From an administrative perspective, this option is more complex as the number of square feet must be determined and verified.
- The data, methodology, and calculations are more complex.

- Increases opportunities to “game” the system by manipulating the definition and number of square feet.

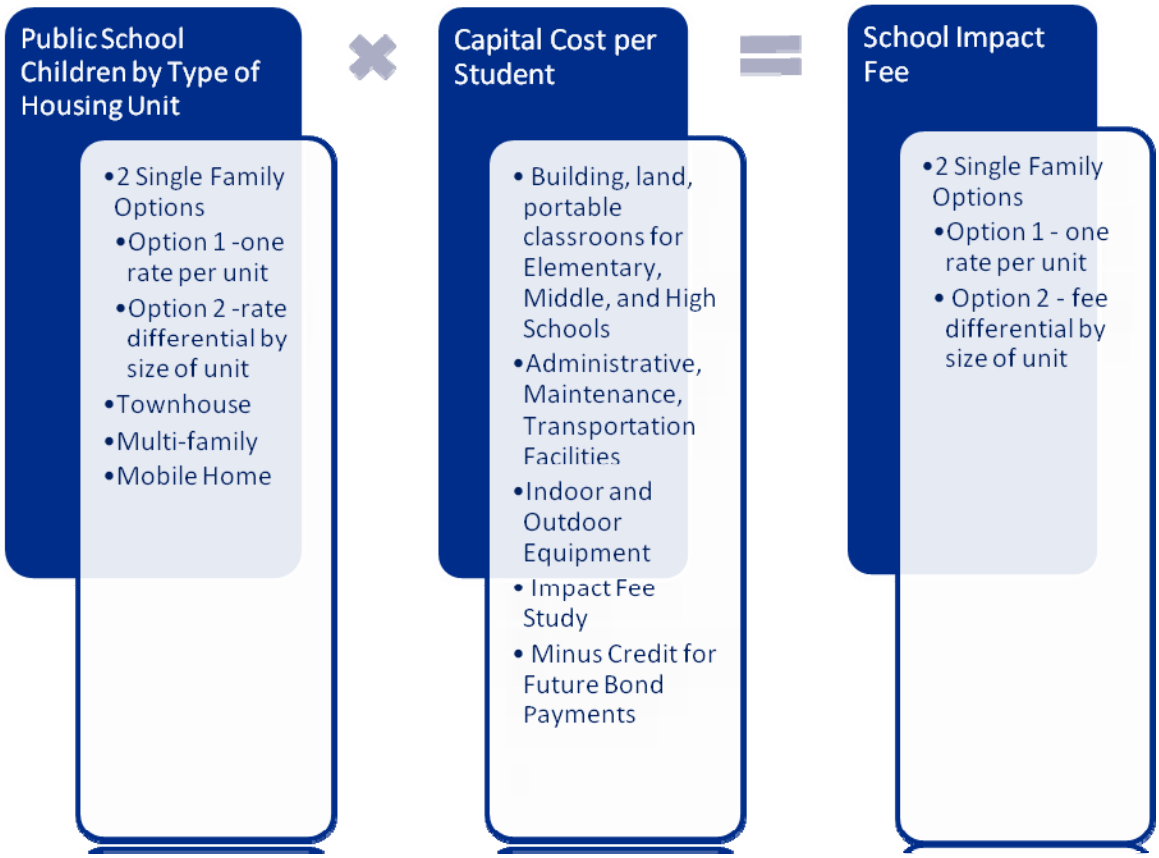
METHODOLOGY

The incremental expansion methodology is used for the calculation of the impact fee for Schools. This method documents the current levels-of-service (LOS) for each type of school facility being provided to existing development. This methodology will allow the County to provide new development the same LOS being provided to existing development. The impact fee is calculated using data from the current school year (2010-2011).

Figure 2 illustrates the formula used to derive the School Impact Fee. The impact fee includes costs for buildings, land, and portable classrooms, for elementary, middle, and high schools. In addition, costs for administrative, maintenance, and transportation buildings, indoor and outdoor equipment, and the impact fee study are also included.

To avoid potential double payment for school facilities, a credit for future bond payments on existing debt is subtracted from the capital cost per student and is reflected in the impact fees.

Figure 2 – School Impact Fee Methodology Chart



PUBLIC SCHOOL PUPIL GENERATION RATES

One of the fundamental requirements of impact fees is the concept of proportionate share. Proportionate share is the principle that impact fee amounts must correspond with the demand and cost for additional infrastructure capacity. This relationship is the critical difference which distinguishes impact fees from taxes. The County's current School Impact Fee is assessed as a flat fee by type of housing unit. Since the County's residential impact fee schedule differentiates the demand by different types of housing units (single family vs. townhouse vs. multi-family), this approach is defensible as it demonstrates the proportionate differences in demand created by these different types of residential development.

Smaller homes typically have smaller household sizes and fewer students compared to larger homes. These differences have a direct relationship on the need for additional infrastructure capacity resulting in differences in impact fee amounts. A flat impact fee schedule can have the adverse effect of smaller homes pay disproportionately larger share of costs, while larger homes disproportionately smaller shares. The result is that flat fees tend to have a regressive effect as those with lower incomes bear a larger percentage of these costs.

Progressive impact fees are designed to more accurately reflect the proportionate demand of different sizes of housing units. Under a progressive impact fee schedule, smaller houses which do not generate as much demand for additional infrastructure capacity pay a lower impact fee as larger houses which generate more demand for additional infrastructure capacity. This approach can reduce any potential regressive effects of impact fees.

STUDENT AND HOUSING DATA

A key variable in calculating School Impact Fees is the number of students generated by different types and sizes of housing unit. Data from the Schools, Assessor's Office, and GIS/Addressing were merged to form a database which contains information on number of students by grade by address, type of residential development, and square footage per unit. The creation of the database resulted in viable data for 21,613 housing units and 7,534 students. The summary of this data is shown in Figure 3.

Figure 3: Students by Grade Level by Type of Housing Unit

Type of Housing Unit	*Size Thresholds (sq ft)*	*Number of Units**	*Average Size of Unit (sf)**	*Elem. School Students***	*Middle School Students***	*High School Students***	*Total Students*
Single Family							
	0-1,000	1,688	816	192	77	94	363
	1,001-2,000	8,582	1,469	1,292	607	788	2,687
	2,001-3,000	5,020	2,419	1,048	456	628	2,132
	3,001-4,000	1,900	3,409	535	241	299	1,075
	4,001+	903	4,730	257	98	153	508
	All Single Family	18,093	2,039	3,324	1,479	1,962	6,765
Townhouse		368	N/A	39	13	17	69
Multi-family		1,492	N/A	121	36	46	203
Mobile Home		1,660	N/A	245	105	147	497
TOTAL		**21,613**		**3,729**	**1,633**	**2,172**	**7,534**

* Jefferson County Assessor's Office
** Jeffferson County Schools.

For each grade level, TischlerBise calculated two sets of student generation rates for single family housing units: one for all single family units regardless of size (used for Option 1) and a second by size of single family unit (used for Option 2). TischlerBise also included logarithmic trend lines and r squared values for student generation rates by size of housing unit to measure the strength of the relationship between size of housing unit and number of students. As shown in the figures below, there is a strong correlation between size of housing unit and number of students generated in Jefferson County.

Note that the analysis of students by size of housing unit is only for single family housing units. Single family housing units are the predominant type of housing unit in the County and come in a variety of sizes and forms. Townhouse, multi-family units, and mobile homes typically do not have the variety of characteristics as single family housing units. The data for townhouse, multi-family units, and mobile is used to calculate student generation rates for these types of housing units. As illustrated in the next section of the report, these types of housing units have lower student generation rates than single family housing units, thus their School Impact Fees will be lower.

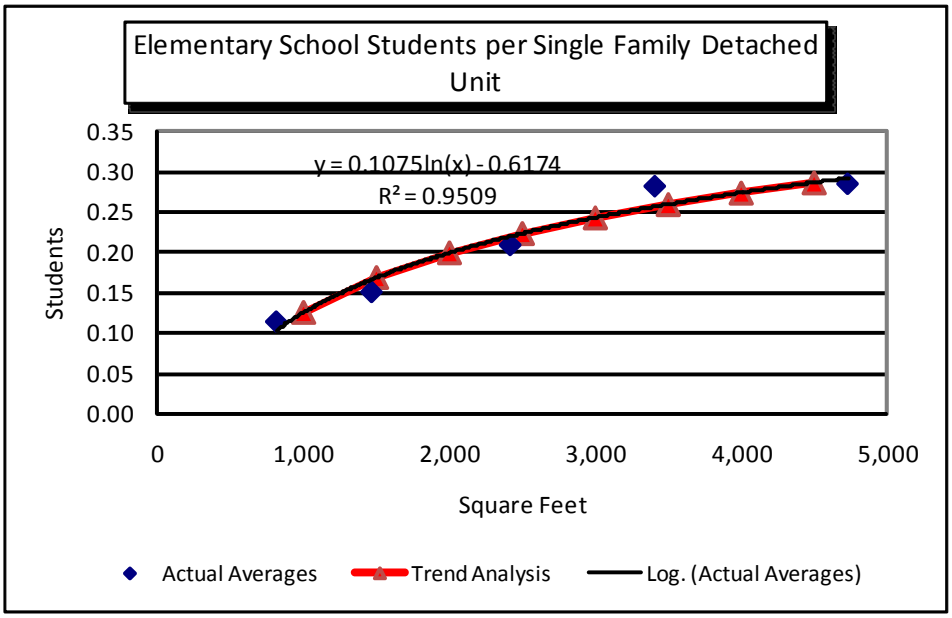
ELEMENTARY STUDENT GENERATION RATES

Data from Figure 3 is used to calculate elementary student generation rates for single family housing units. Generation rates by size of unit are calculated using 1,000 square foot intervals. A maximum threshold of 4,000 square feet is used given the small number of units of this size or larger in the County. Student generation rates by size of housing unit are shown at the top of Figure 4. The elementary student generation rate for all single family units is shown in the middle of Figure 4. The table at the bottom of Figure 4 illustrates the relationship of the number of elementary school students by size of single family housing unit including the formula for the logarithmic trend line and r^2 value. The r^2 value measures how well the trend line approximates actual data. The closer the r^2 value is to 1, the better the predictive value of the trend analysis. The r^2 value from Figure 4 is 0.9509.

Figure 4: Elementary School Student Generation Rates Trend Analysis by Size of Single Family Unit

Actual Averages		
Size Range	*Square Feet**	*Pupils/Unit***
0-1,000	816	0.11
1,001-2,000	1,469	0.15
2,001-3,000	2,419	0.21
3,001-4,000	3,409	0.28
4,001+	4,730	0.28

All Single Family Units 0.18



* Source: Jefferson County Assessor's Office.
** Source: Jefferson County Schools.

Data from Figure 3 is used to calculate elementary student generation rates for townhouse, multi-family, and mobile homes.

Figure 5: Elementary School Student Generation Rates for Townhouse, Multi-family, and Mobile Homes

Type of Housing Unit	*Elem. School Rate*
Townhouse	0.11
Multi-family	0.08
Mobile Home	0.15

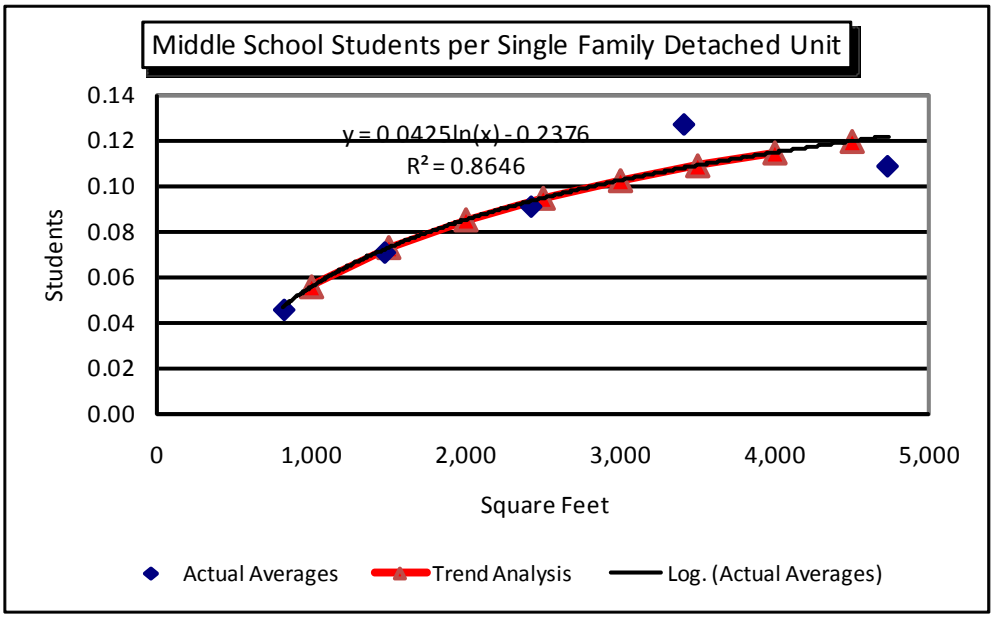
MIDDLE SCHOOL STUDENT GENERATION RATES

Data from Figure 3 is used to calculate middle school student generation rates for single family housing units. Student generation rates by size of housing unit are shown at the top of Figure 6. The middle school student generation rate for all single family units is shown in the middle of Figure 6. The table at

the bottom of Figure 6 illustrates the relationship of the number of middle school students by size of single family housing unit including the formula for the logarithmic trend line and r^2 value. The r^2 value from Figure 6 is 0.8646.

Figure 6: Middle School Student Generation Rates Trend Analysis by Size of Single Family Unit

Actual Averages		
Size Range	*Square Feet**	*Pupils/Unit***
0-1,000	816	0.05
1,001-2,000	1,469	0.07
2,001-3,000	2,419	0.09
3,001-4,000	3,409	0.13
4,001+	4,730	0.11
All Single Family Units		0.08



* Source: Jefferson County Assessor's Office.
** Source: Jefferson County Schools.

Data from Figure 3 is used to calculate middle school student generation rates for townhouse, multi-family, and mobile homes.

Figure 7: Middle School Student Generation Rates for Townhouse, Multi-family, and Mobile Homes

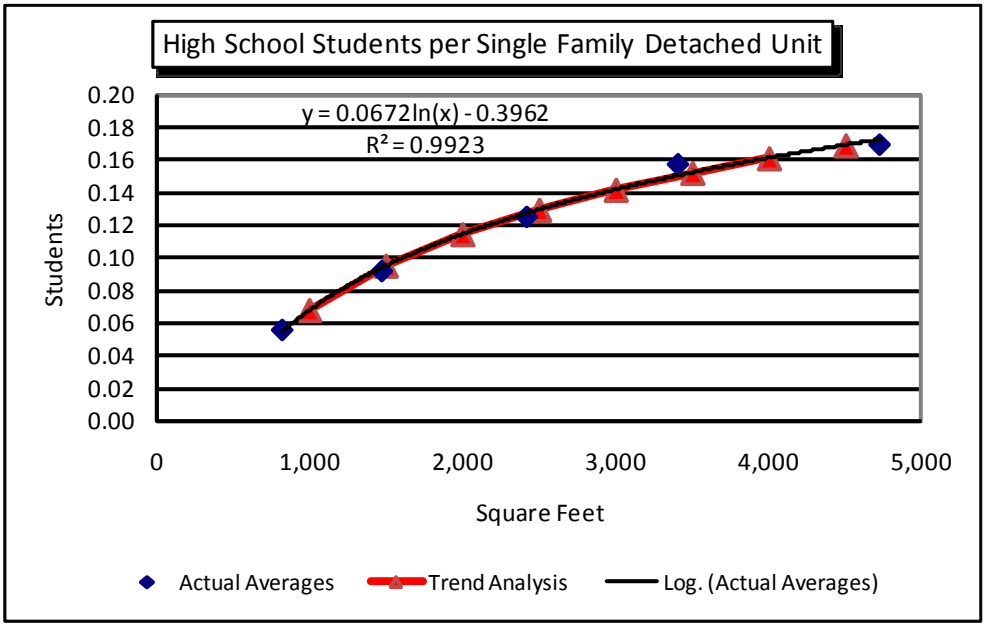
Type of Housing Unit	*Middle School Rate*
Townhouse	0.04
Multi-family	0.02
Mobile Home	0.06

HIGH SCHOOL STUDENT GENERATION RATES

Data from Figure 3 is used to calculate high school student generation rates for single family housing units. Student generation rates by size of housing unit are shown at the top of Figure 8. The high school student generation rate for all single family units is shown in the middle of Figure 8. The table at the bottom of Figure 8 illustrates the relationship of the number of high school students by size of single family housing unit including the formula for the logarithmic trend line and r^2 value. The r^2 value from Figure 6 is 0.9923.

Figure 8: High School Student Generation Rates Trend Analysis by Size of Single Family Unit

Actual Averages		
Size Range	*Square Feet**	*Pupils/Unit***
0-1,000	816	0.06
1,001-2,000	1,469	0.09
2,001-3,000	2,419	0.13
3,001-4,000	3,409	0.16
4,001+	4,730	0.17
All Single Family Units		0.11



* Source: Jefferson County Assessor's Office.

** Source: Jefferson County Schools.

Data from Figure 3 is used to calculate high school student generation rates for townhouse, multi-family, and mobile homes.

Figure 9: High School Student Generation Rates for Townhouse, Multi-family, and Mobile Homes

Type of Housing Unit	*High School Rate*
Townhouse	0.05
Multi-family	0.03
Mobile Home	0.09

TWO OPTIONS FOR SINGLE FAMILY UNITS

TischlerBise has prepared two options for student generation rates for single family units. Option 1 includes a single student generation rate for single family units in addition to rates for townhouse, multi-family, and mobile homes. This option is similar to the structure of the County's current School Impact Fees.

Figure 10.A: Option 1 – Single Rate per Single Family Housing Unit

Type of Housing Unit	*Elem. School Rate*	*Middle School Rate*	*High School Rate*	*Total Rate*
Single Family	0.18	0.08	0.11	0.37
Townhouse[1]	0.11	0.04	0.05	0.19
Multi-family[2]	0.08	0.02	0.03	0.14
Mobile Home	0.15	0.06	0.09	0.30

1. Includes single family attached and duplexes.
2. Includes 3 units or more.

Option 2 includes progressive student generation rates by size of single family housing units. Note the rates for townhouse, multi-family, and mobile homes are the same under both options. Based on analysis of the age of single family units and distribution of units among size categories, TischlerBise recommends the following size thresholds:

0 – 1,500 square feet
1,501 – 2,500 square feet
2,501 – 3,500 square feet
3,501 + square feet

Using the trend line formulas for each grade level from the above figures, student generation rates are calculated for these size categories. These rates are shown in the figure below.

Figure 10.B: Option 2 – Progressive Rate by Size of Single Family Housing Unit

Type of Housing Unit	*Size Thresholds (sq ft)*	*Elem. School Rate*	*Middle School Rate*	*High School Rate*	*Total Rate*
Single Family					
	0 -1,500	0.17	0.07	0.10	0.34
	1,501 - 2,500	0.22	0.09	0.13	0.45
	2,501-3,500	0.26	0.11	0.15	0.52
	3,501 +	0.29	0.12	0.17	0.58
Townhouse[1]		0.11	0.04	0.05	0.19
Multi-family[2]		0.08	0.02	0.03	0.14
Mobile Home		0.15	0.06	0.09	0.30

1. Includes single family attached and duplexes.
2. Includes 3 units or more.

CAPITAL COSTS PER STUDENT

The School Impact Fee includes components for buildings, land, and portable classrooms for elementary, middle, and high schools. The fee also includes components for central facilities, indoor and outdoor equipment, and impact fee study consultant costs. This section of the report details the current LOS and cost factors which are used in the impact fee calculations.

ELEMENTARY SCHOOL

The current inventory of elementary schools in Jefferson County is shown in the figure below. The elementary schools encompass 490,843 square feet and an enrollment of 4,495 students which yields a building LOS of 109.2 square feet per student (490,843 square feet/4,495 students = 109.2 square feet per student). There are 12,000 square feet of portable classrooms at the elementary schools, or 2.7 square feet per student (12,000 square feet/4,495 students = 2.7 square feet per student). These schools occupy 179.07 acres which results in an LOS of 0.04 acres per student (179.07 acres/4,495 students = 0.04 acres per student).

Figure 11: Elementary School LOS Standards

Elementary Schools	Building Square Footage	Portable Square Footage	Acreage	SY10-11 Enrollment	Building SF Per Student	Portable SF Per Student	Acres Per Student
Blue Ridge	49,155	4,480	41.25	433			
C W Shipley	42,674	1,440	15.00	385			
Driswood	58,800	0	15.00	504			
North Jefferson	44,891	1,440	12.00	273			
Page Jackson	58,699	800	12.38	474			
Ranson	35,401	3,840	4.46	388			
Shepherdstown	40,179	0	7.98	482			
South Jefferson	44,573	0	15.00	528			
T A Lowery	65,594	0	52.00	582			
Wright Denny	50,877	0	4.00	446			
Totals	**490,843**	**12,000**	**179.07**	**4,495**	**109.2**	**2.7**	**0.04**

The costs for buildings, portable classrooms, and land for elementary schools are shown in the figure below. These costs will be multiplied by the above LOS standards to determine the elementary school cost component of the impact fee. The cost per square foot for an elementary school is from the School Building Authority of West Virginia (SBA) and does not include land, furniture, fixtures, or equipment. Jefferson County Schools, in consultation with Williamson Shriver, Inc., provided cost factors for portable classrooms and land.

Figure 12: Elementary School Capital Costs

Construction Cost per Square Foot*	$230
Land Cost per Acre**	$41,000
Portable Classroom Cost per Square Foot**	$60

* School Building Authority of West Virginia. Does not include land, furniture, fixtures, or equipment.
** Jefferson County Schools staff in consultation with Williamson Shriver, Inc.

MIDDLE SCHOOLS

Figure 13 lists the current inventory middle schools in Jefferson County. The schools total 273,576 square feet and an enrollment of 1,827 students which yields a building LOS of 146.1 square feet per student (273,576 square feet/1,827 students = 146.1 square feet per student). There are 10,240 square feet of portable classrooms at the middle schools, or 5.5 square feet per student (10,240 square feet/1,827 students = 5.5 square feet per student). These schools occupy 61.63 acres which results in an LOS of 0.03 acres per student (61.63 acres/1,827 students = 0.03 acres per student).

Figure 13: Middle School LOS Standards

Middle Schools	Building Square Footage	Portable Square Footage	Acreage	SY10-11 Enrollment	Building SF Per Student	Portable SF Per Student	Acres Per Student
Charles Town	82,231	0	13.53	592			
Harpers Ferry	48,970	7,360	10.00	395			
Shepherdstown	53,375	2,880	8.80	308			
Wildwood	89,000	0	29.30	577			
Totals	**273,576**	**10,240**	**61.63**	**1,872**	**146.1**	**5.5**	**0.03**

The costs for buildings, portable classrooms, and land for elementary schools are shown in the figure below. These costs will be multiplied by the above LOS standards to determine the middle school cost component of the impact fee. The cost per square foot for a middle school is from the School Building Authority of West Virginia (SBA) and does not include land, furniture, fixtures, or equipment. Jefferson County Schools, in consultation with Williamson Shriver, Inc., provided cost factors for portable classrooms and land.

Figure 14: Middle School Capital Costs

Construction Cost per Square Foot*	$237
Land Cost per Acre**	$30,000
Portable Classroom Cost per Square Foot**	$60

* School Building Authority of West Virginia. Does not include land, furniture, fixtures, or equipment.
** Jefferson County Schools staff in consultation with Williamson Shriver, Inc.

HIGH SCHOOLS

The current inventory of high schools in Jefferson County is shown in the figure below. The high schools encompass 424,116 square feet and an enrollment of 2,477 students which yields a building LOS of 171.2 square feet per student (424,116 square feet/2,477 students = 171.2 square feet per student). There are 2,880 square feet of portable classrooms at the high schools, or 1.2 square feet per student (2,880 square feet/2,477 students = 1.2 square feet per student). These schools occupy 122.00 acres which results in an LOS of 0.05 acres per student (122.00 acres/2,477 students = 0.05 acres per student).

Figure 15: High School LOS Standards

High Schools	Building Square Footage	Portable Square Footage	Acreage	SY10-11 Enrollment	Building SF Per Student	Portable SF Per Student	Acres Per Student
Jefferson	211,000	2,880	64.00	1,367			
Washington	209,000	0	57.00	1,110			
Alternative Learning Center	4,116	0	1.00	0			
Totals	**424,116**	**2,880**	**122.00**	**2,477**	**171.2**	**1.2**	**0.05**

The costs for buildings, portable classrooms, and land for high schools are shown in the figure below. These costs will be multiplied by the above LOS standards to determine the high school cost component of the impact fee. The cost per square foot for a high school is from the School Building Authority of West Virginia (SBA) and does not include land, furniture, fixtures, or equipment. Jefferson County Schools, in consultation with Williamson Shriver, Inc., provided cost factors for portable classrooms and land.

Figure 16: High School Capital Costs

Construction Cost per Square Foot*	$243
Land Cost per Acre**	$30,000
Portable Classroom Cost per Square Foot**	$60

* School Building Authority of West Virginia. Does not include land, furniture, fixtures, or equipment.
** Jefferson County Schools staff in consultation with Williamson Shriver, Inc.

ADMINISTRATION, MAINTENANCE, TRANSPORTATION FACILITIES

Figure 17 lists the inventory of existing facilities for administration, maintenance, and transportation. Jefferson County has 17,870 square feet of office facilities and a total enrollment of 8,844 students which yields a building LOS of 2.02 square feet per student (17,870 square feet/8,844 students = 2.02 per student).

Figure 17: Administration, Maintenance, Transportation Office LOS Standards

	Building Square Footage	SY10-11 Enrollment	Building SF Per Student
Board of Education Building	16,620		
Maintenance/Transportation Depts - Office	1,250		
Total	**17,870**	**8,844**	**2.02**

Figure 18 lists the inventory of existing shop facilities for maintenance, and transportation. Jefferson County has 10,300 square feet of shop facilities and a total enrollment of 8,844 students which yields a building LOS of 1.16 square feet per student (10,300 square feet/8,844 students = 1.16 per student).

Figure 18: Maintenance, Transportation Shop LOS Standards

	Building Square Footage	SY10-11 Enrollment	Building SF Per Student
Maintenance/Transportation Depts - Shop	**10,300**	**8,844**	**1.16**

The costs for these facilities are shown in Figure 19. These costs will be multiplied by the above LOS standards to determine the administration, maintenance, and transportation facilities component of the impact fee. The cost per square foot for office space is $226 per square foot while the cost per square foot for shop space is $217 per square foot. Jefferson County Schools, in consultation with Williamson Shriver, Inc., provided cost factors for portable classrooms and land.

Figure 19: Administration, Maintenance, Transportation Facility Capital Costs

Office Construction Cost per Square Foot*	$226
Shop Construction Cost per Square Foot*	$217

* Jefferson County Schools staff in consultation with Williamson Shriver, Inc.

INDOOR AND OUTDOOR EQUIPMENT

Based on the School's insurance records, Jefferson County Public Schools currently have $19,684,102 of building contents and $2,634,500 of outdoor equipment for the total enrollment of 8,844 students. This results in a capital cost of $2,226 per student for indoor equipment and $298 per student for outdoor equipment.

Figure 20: Indoor and Outdoor Equipment Capital Costs

Equipment	Insurance* Value	SY10-11 Enrollment	Cost per Student
Building Contents	$19,684,102	8,844	$2,226
Outdoor Equipment	$2,634,500	8,844	$298

* Jefferson County Schools insurance records.

IMPACT FEE CONSULTANT STUDY COST

The cost of preparing the School Impact Fee is also included in the fee calculations. The County's current School Impact Fee also includes this component. This cost ($26,200) is allocated to the projected increase in students over the next five years. On average, the County updates its impact fee methodologies and components every five years. This results in a consultant fee cost per demand unit of $90.23 per student ($26,200/290 students = $90.23 per student).

GENERAL CREDITS

Credits must be evaluated to avoid potential double payment situations arising from the payment of a one-time impact fee plus payment of other taxes that may also fund growth-related capital improvements. The School Impact Fee methodology includes general credits for future property tax payments which will be used to retire the principal portion of General Obligation bonds issued in 2004 for school construction. These bonds will be retired in 2020.

The Jefferson County Assessor's Office provided the average market values and assessment rates shown in Figure 21. Due to the difficulty of projecting future market values and assessment and tax rates, TischlerBise recommends against including an inflation factor. For property tax purposes, West Virginia has several classes of property, each with a different levy. In the calculation of impact fee credits, single family, townhouses, and mobile homes are treated as Class II property. Multi-family units are assumed to be rental and thus Class III property. The FY2010-11 tax rates for retiring the principal portion of the 2004 bond issue are shown below.

Figure 21: General Credits Factors

Type of Housing Unit	Average Market Value*
Single Family Detached	
0-1,500 Square Feet	$144,568.33
1,501-2,500 Square Feet	$205,686.70
2,501-3,500 Square Feet	$284,899.68
3,501 or more Square Feet	$360,547.71
Single Family Detached (all units)	$216,197.54
Duplex/Townhome	$224,049.21
Multi-family	$46,294.13
Mobile Home	$82,155.20

Bond Levy	
Assessment Rate*	60%
Levy rate for bond purposes**	
Class II	0.000334
Class III	0.000688
Class IV	0.000688

* Jefferson County Assessor's Office.
** Jefferson County Schools.

The future stream of property tax revenues is projected over the remaining years of the 2004 bond and then discounted at a rate of 3.85% which is the weighted annual interest rate of the remaining bond payments. Figures 22.A and 22.B detail the calculation of the credits under the two pupil generation rate options.

Figure 22.A: General Credits under Option 1

School Year	*All Single Family*	*Duplex/Townhouse*	*Multi-family*	*Mobile Home*
2010-2011	$43.33	$44.90	$19.11	$16.46
2011-2012	$43.33	$44.90	$19.11	$16.46
2012-2013	$43.33	$44.90	$19.11	$16.46
2013-2014	$43.33	$44.90	$19.11	$16.46
2014-2015	$43.33	$44.90	$19.11	$16.46
2015-2016	$43.33	$44.90	$19.11	$16.46
2016-2017	$43.33	$44.90	$19.11	$16.46
2017-2018	$43.33	$44.90	$19.11	$16.46
2018-2019	$43.33	$44.90	$19.11	$16.46
2019-2020	$43.33	$44.90	$19.11	$16.46
Total	$433.26	$448.99	$191.10	$164.64
Discount Rate*	3.85%	3.85%	3.85%	3.85%
Net Present Value	$353.98	$366.84	$156.13	$134.51

* TIschlerBise analysis of weighted average annual interest rates on remaining debt service.

Figure 22.B: General Credits under Option 2

	Single Family						
School Year	*0-1,500 sf*	*1,501-2,500 sf*	*2,501-3,500 sf*	*3,501 + sf*	*Duplex/Townhouse*	*Multi-family*	*Mobile Home*
2010-2011	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2011-2012	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2012-2013	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2013-2014	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2014-2015	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2015-2016	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2016-2017	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2017-2018	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2018-2019	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
2019-2020	$28.97	$41.22	$57.09	$72.25	$44.90	$19.11	$16.46
Total	$289.71	$412.20	$570.94	$722.54	$448.99	$191.10	$164.64
Discount Rate*	3.85%	3.85%	3.85%	3.85%	3.85%	3.85%	3.85%
Net Present Value	$236.70	$336.77	$466.47	$590.33	$366.84	$156.13	$134.51

* TIschlerBise analysis of weighted average annual interest rates on remaining debt service.

Figures 23.A and 23.B summarize the variables for Option 1 and 2 that are used to calculate the School Impact Fee.

Figure 23.A: Option 1 School Impact Fee Variables

Students per Housing Unit

Type	Elementary	Middle	High
Single Family Detached	0.18	0.08	0.11
Duplex/Townhome	0.11	0.04	0.05
Multi-family	0.08	0.02	0.03
Mobile Home	0.15	0.06	0.09

Level of Service Standards

Component	Elementary	Middle	High
School square footage per student	109.2	146.1	171.2
Capital Cost per Square Foot	$230.00	$237.00	$243.00
Cost per Student	**$25,115.44**	**$34,635.42**	**$41,606.86**
Acreage per Student	0.04	0.03	0.05
Capital Cost per Acre	$41,000.00	$30,000.00	$30,000.00
Cost per Student	**$1,633.34**	**$987.66**	**$1,477.59**
Portable room square footage per student	2.7	5.5	1.2
Capital cost per square foot	$60.00	$60.00	$60.00
Cost per Student	**$160.18**	**$328.21**	**$69.76**
Admin Office Cost square footage per student	2.0	2.0	2.0
Capital cost per square foot	$226.00	$226.00	$226.00
Cost per Student	**$456.65**	**$456.65**	**$456.65**
Admin Shop Cost square footage per student	1.2	1.2	1.2
Capital cost per square foot	$217.00	$217.00	$217.00
Cost per Student	**$252.73**	**$252.73**	**$252.73**
Indoor Equipment cost per student	$2,225.70	$2,225.70	$2,225.70
Outdoor Equipment cost per student	$297.89	$297.89	$297.89
Cost per Student	**$2,523.59**	**$2,523.59**	**$2,523.59**
Consultant Fee Cost per Student	**$90.23**	**$90.23**	**$90.23**
Total Capital Cost per Student	**$30,232.15**	**$39,274.48**	**$46,477.41**

Figure 23.B: Option 2 School Impact Fee Variables

Students per Housing Unit

Type	Elementary	Middle	High
Single Family Detached			
0-1,500 Square Feet	0.17	0.07	0.10
1,501-2,500 Square Feet	0.22	0.09	0.13
2,501-3,500 Square Feet	0.26	0.11	0.15
3,501 or more Square Feet	0.29	0.12	0.17
Duplex/Townhome	0.11	0.04	0.05
Multi-family	0.08	0.02	0.03
Mobile Home	0.15	0.06	0.09

Level of Service Standards

Component	Elementary	Middle	High
School square footage per student	109.2	146.1	171.2
Capital Cost per Square Foot	$230.00	$237.00	$243.00
Cost per Student	**$25,115.44**	**$34,635.42**	**$41,606.86**
Acreage per Student	0.04	0.03	0.05
Capital Cost per Acre	$41,000.00	$30,000.00	$30,000.00
Cost per Student	**$1,633.34**	**$987.66**	**$1,477.59**
Portable room square footage per student	2.7	5.5	1.2
Capital cost per square foot	$60.00	$60.00	$60.00
Cost per Student	**$160.18**	**$328.21**	**$69.76**
Admin Office Cost square footage per student	2.0	2.0	2.0
Capital cost per square foot	$226.00	$226.00	$226.00
Cost per Student	**$456.65**	**$456.65**	**$456.65**
Admin Shop Cost square footage per student	1.2	1.2	1.2
Capital cost per square foot	$217.00	$217.00	$217.00
Cost per Student	**$252.73**	**$252.73**	**$252.73**
Indoor Equipment cost per student	$2,225.70	$2,225.70	$2,225.70
Outdoor Equipment cost per student	$297.89	$297.89	$297.89
Cost per Student	**$2,523.59**	**$2,523.59**	**$2,523.59**
Consultant Fee Cost per Student	**$90.23**	**$90.23**	**$90.23**
Total Capital Cost per Student	**$30,232.15**	**$39,274.48**	**$46,477.41**

The number of students per housing unit for each grade level is multiplied by the corresponding cost per student for that grade level. This is repeated for all three grade levels. The three cost factors are then added together. The general credit is then deducted from this amount, resulting in the School Impact Fee. This calculation is performed for each type of housing unit.

Figure 24 illustrates this calculation using single family detached under Option 1 as an example.

Figure 24: Example Impact Fee Calculation

	Students per Housing Unit		*Total Capital Cost per Student*		
Elementary	0.18	x	$30,232.15	=	$5,554
Middle	0.08	x	$39,274.48	=	$3,210
High	0.11	x	$46,477.41	=	$5,040
			Subtotal		$13,805
			Minus General Credit		($354)
			IMPACT FEE		**$13,451**

Figures 25.A and 25.B list the School Impact Fee amounts for Options 1 and 2.

Figure 25.A: Option 1 School Impact Fees

Housing Type	*Elementary*	*Middle*	*High*	*All Grades*	*Credit*	***TOTAL***
Single Family Detached	$5,554	$3,210	$5,040	$13,805	($354)	**$13,451**
Duplex/Townhome	$3,326	$1,571	$2,324	$7,220	($367)	**$6,854**
Multi-family	$2,419	$785	$1,394	$4,598	($156)	**$4,442**
Mobile Home	$4,535	$2,356	$4,183	$11,074	($135)	**$10,940**

Figure 25.B: Option 2 School Impact Fees

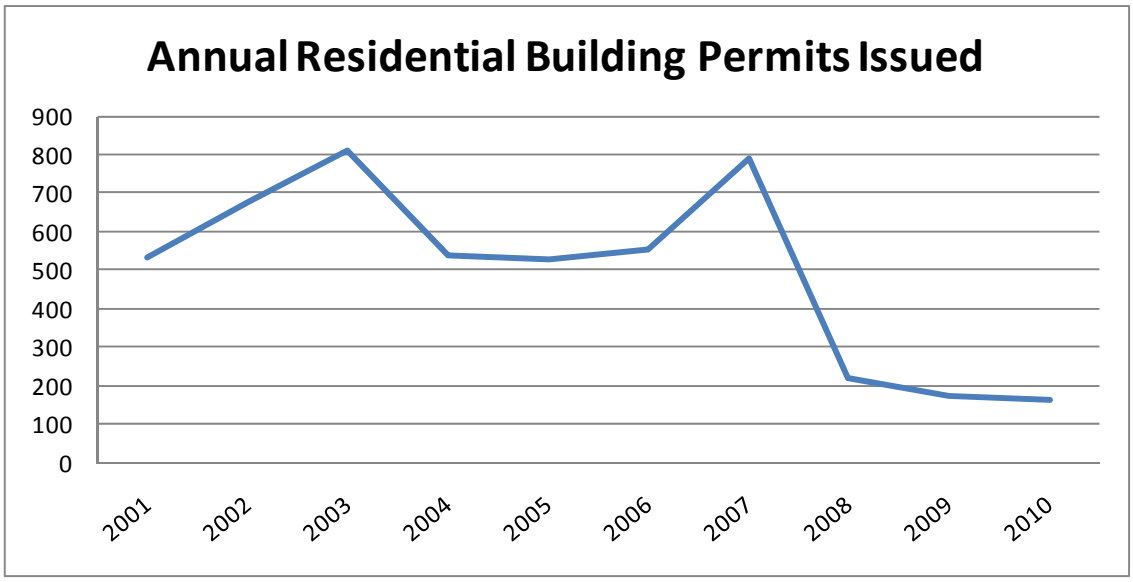
Housing Type	*Elementary*	*Middle*	*High*	*All Grades*	*Credit*	***TOTAL***
Single Family Detached						
0-1,500 Square Feet	$5,102	$2,875	$4,427	$12,405	($237)	**$12,168**
1,501-2,500 Square Feet	$6,762	$3,728	$6,022	$16,513	($337)	**$16,176**
2,501-3,500 Square Feet	$7,856	$4,290	$7,073	$19,219	($466)	**$18,752**
3,501 or more Square Feet	$8,673	$4,709	$7,858	$21,240	($590)	**$20,650**
Duplex/Townhome	$3,326	$1,571	$2,324	$7,220	($367)	**$6,854**
Multi-family	$2,419	$785	$1,394	$4,598	($156)	**$4,442**
Mobile Home	$4,535	$2,356	$4,183	$11,074	($135)	**$10,940**

APPENDIX A – DEVELOPMENT PROJECTIONS

TischlerBise has prepared development projections for the purpose of having an understanding of the possible future pace of capacity need, capital expenditures, and impact fee revenues.

Based on data from the U.S. Census Bureau's *Manufacturing, Mining, and Construction Statistics*, Jefferson County has issued 4,988 residential building permits over the last ten years. However, the pace at which these permits have been issued has fluctuated dramatically from year to year. This is especially the case during the economic recession of the last several years. Figure A-1 illustrates these recent trends.

Figure A-1: Annual Residential Building Permits Issued 2001-2010



Given the depths of the recent economic recession and uncertain recovery period, TischlerBise recommends using a conservative growth projection. The County has averaged 186 residential building permits the last three years, of which 75% were for single family housing units with the remaining 25% being for multi-family units. TischlerBise recommends using these figures for short-term residential development projections.

Figure A-2: Residential Development Projection Assumptions

Average Annual Permits, Last 3 Years*	186
Single Family *	75.0%
Multi-family*	25.0%
Single Family	139
Multi-family	46
TOTAL	186

* U.S. Census Bureau, *Manufacturing, Mining, and Construction Statistics*.

Applying the student generation rates to these assumption, results in an additional 58 students per year from new residential development. Figure A-3 projects an additional 928 housing units and 290 students over the next five years.

Figure A-3: Residential Development and Student Projections 2011-2016

		2011	*2012*	*2013*	*2014*	*2015*	*TOTAL*
Projected Housing Units		186	186	186	186	186	**928**
	Distribution						
Single Family	75%	139	139	139	139	139	**696**
Multi-family	25%	46	46	46	46	46	**232**
Elementary School Students	Pupil Gen. Rate						
Single Family	0.18	26	26	26	26	26	**128**
Multi-family	0.08	4	4	4	4	4	**19**
Subtotal		29	29	29	29	29	**146**
Middle School Students	Pupil Gen. Rate						
Single Family	0.08	11	11	11	11	11	**57**
Multi-family	0.02	1	1	1	1	1	**5**
Subtotal		12	12	12	12	12	**62**
High School Students	Pupil Gen. Rate						
Single Family	0.11	15	15	15	15	15	**75**
Multi-family	0.03	1	1	1	1	1	**7**
Subtotal		16	16	16	16	16	**82**
TOTAL STUDENTS		**58**	**58**	**58**	**58**	**58**	**290**

APPENDIX B - CASH FLOW ANALYSIS

Based on the development projections, LOS, and cost factors, the County could collect a total of $10.4 million of School Impact Fee over the next five years. Over the same time period, new development will require $10.7 million of capital expenditures in order to maintain the current LOS being provided to existing development. The small annual and cumulative deficits shown at the bottom of Figure B-1 are the result of the general credit for future debt service payments.

Figure B-1: Projected Five Year Cash Flow Analysis for School Impact Fees

		2011	*2012*	*2013*	*2014*	*2015*	*TOTAL*
Projected Housing Units							
Single Family		139	139	139	139	139	**696**
Multi-family		46	46	46	46	46	**232**
Impact Fee Revenues							
	Impact Fee						
Single Family	$13,451	$1,872,087	$1,872,087	$1,872,087	$1,872,087	$1,872,087	**$9,360,433**
Multi-family	$4,442	$206,093	$206,093	$206,093	$206,093	$206,093	**$1,030,467**
TOTAL		$2,078,180	$2,078,180	$2,078,180	$2,078,180	$2,078,180	**$10,390,900**
Projected Students							
Elementary		29	29	29	29	29	**146**
Middle		12	12	12	12	12	**62**
High		16	16	16	16	16	**82**
Projected Capital Expenditures	Cost per Student						
Elementary	$30,232.15	$885,247	$885,247	$885,247	$885,247	$885,247	**$4,426,236**
Middle	$39,274.48	$483,280	$483,280	$483,280	$483,280	$483,280	**$2,416,402**
High	$46,477.41	$766,164	$766,164	$766,164	$766,164	$766,164	**$3,830,821**
TOTAL		$2,134,692	$2,134,692	$2,134,692	$2,134,692	$2,134,692	**$10,673,459**
Annual Surplus/(Deficit)		($56,512)	($56,512)	($56,512)	($56,512)	($56,512)	
Cumulative Surplus/(Deficit)		($56,512)	($113,024)	($169,535)	($226,047)	($282,559)	

Note: because the School Impact Fees are calculated using the incremental expansion methodology based on the current inventory of facilities and enrollment, there will be no effect on the amount of the impact fees should these projections change. To the extent these projections change, the amount of impact fee revenues collected and resulting capital needs will change in a corresponding manner. For example, if development occurs at a more rapid pace than projected, additional impact fee revenues will be collected but additional capital expenditures will be needed to meet the demand of new development.