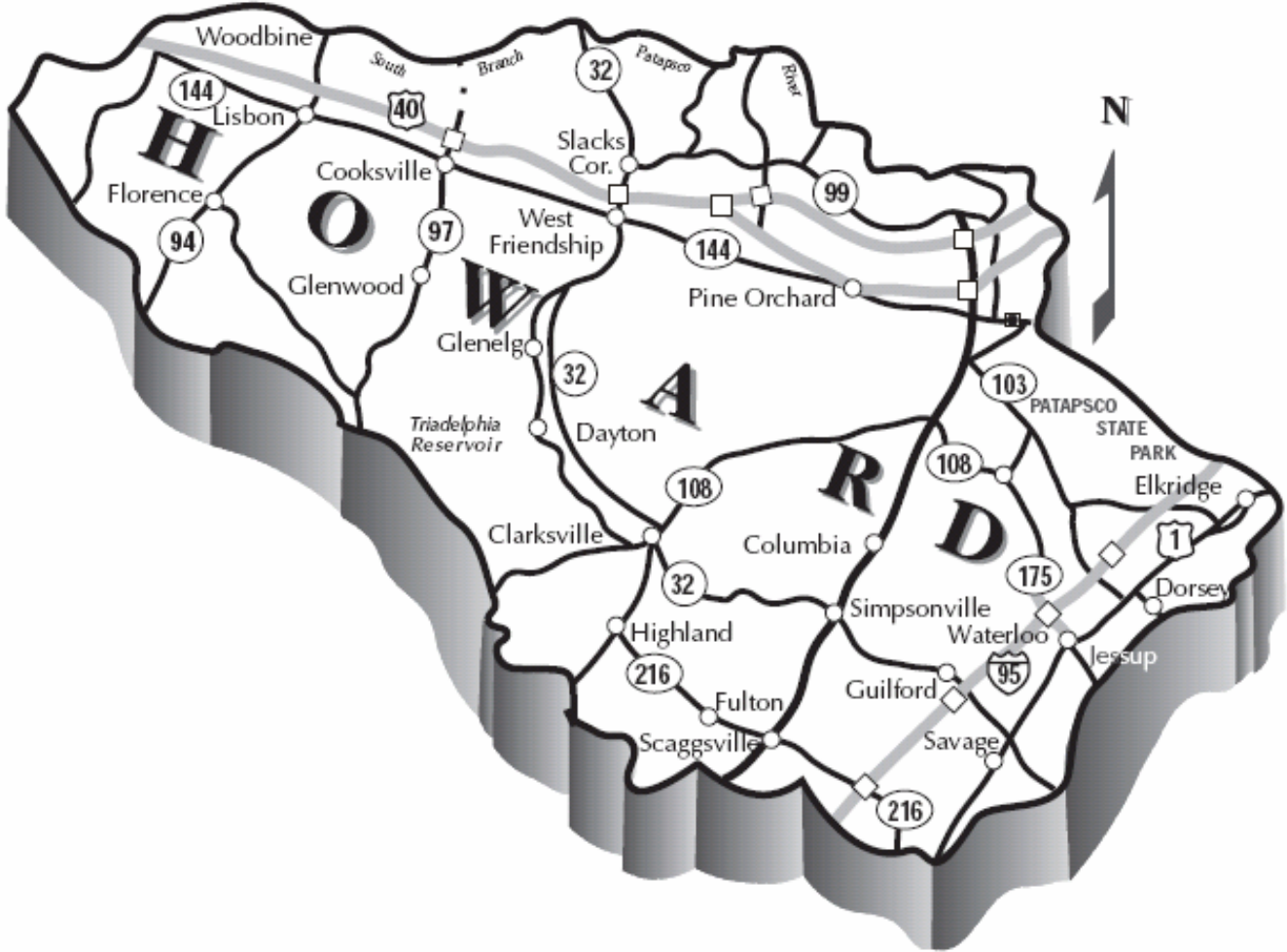


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# FEASIBILITY STUDY

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June 2013

**THE HOWARD COUNTY PUBLIC SCHOOL SYSTEM**



# Feasibility Study

## An Annual Review of Long-Term Capital Planning and Redistricting Options

June 2013

Howard County Board of Education

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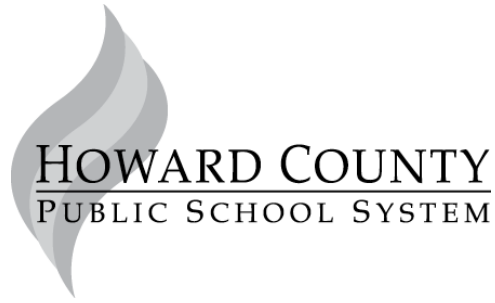
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June 13, 2013

To: Board of Education Members  
From: Renee A. Foose, Ed.D., Superintendent

Subject: June 2013 Feasibility Study – An Annual Review of Long-term Capital Planning and Redistricting Options

This document evaluates Long-Range Capital Improvement Program/Redistricting Plans for the school years 2014–2024. Site acquisition planning for needs beyond this period is also presented in the document. Staff provides recommended changes to the Capital Improvement Program for FY 2015 and suggested redistricting to support the Capital Improvement Program.

Middle school redistricting that would take effect at the start of the 2014–2015 school year is considered for this year. Other plans are included for future years. A goal of this study is to identify the best scenario for sequencing redistricting to make best use of capacity in a time of significant capital budget challenges. Some plans may be adjusted over the next year based upon observed conditions and feedback in the redistricting process. I believe this report promotes open discussion about goals for redistricting which allows for transparency in the long-range planning process.

I look forward to working with the Board of Education on the review of this document.

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## Supplemental Reports

Located online at <http://www.hcpss.org/schoolplanning/>

**Supplement to Feasibility Study** – Comparative assessment information for the proposed scenario.

**Gilbert Capacity Analysis** – Research and analysis to support revised capacity formula for middle school facilities.

**DeJong Richter Analysis** – Audit of projection methodology and evaluation of scenario testing technique.

**Redistricting Forums** - Summaries and findings from citizen forums held on May 15, 2013 and May 22, 2013.

## I. Introduction

Each year, the Board of Education reviews capital planning options and redistricting scenarios through a feasibility study. The annual student enrollment projection is introduced in this report along with scenarios that are intended to provide a comprehensive look at suggested capital additions, renovations, and any attendance area adjustments that are anticipated within the ten-year Capital Improvement Program period. Plans examined in this document may only be implemented through the Board of Education's approval of both the capital budget and any change to current school attendance areas. This report is the starting point for the annual process of developing the capital budget.

This document presents a single staff recommendation. Other scenarios may be developed in future attendance area review processes. Plan assessments are included in an attempt to show how plans compare to the eleven policy considerations in Policy 6010 School Attendance Areas.

**This is a planning document and the recommendations presented for review are not final.** The conditions which have influenced past enrollment projections may change. New plans may be needed to react to population shifts or new residential development plans. Experience has shown that by presenting this report annually, assumptions and trends can be given consideration on a regular basis and appropriate adjustments can be made to the capital budget or redistricting plans. Redistricting proposals are not certain until approved by the Board of Education.

The recommendation in this document is presented for each organizational level (elementary, middle, and high) using a pre- and post-measures format. The pre-measures format shows the effect of projected enrollment without any redistricting. The pre-measures format also shows FY 2014 Capital Budget projects as approved. The post-measures format shows the impact of projected enrollment within a redistricting plan. The post-measures format includes capital projects recommended in this document for the FY 2015 Capital Budget. If these projects are not approved, other plans must be developed. These same reports and other tables are included in the electronic document [A Supplement to the 2013 Feasibility Study](#)<sup>1</sup>.

The redistricting process includes the following:

**Feasibility Study.** Projects in the Capital Improvement Program that increase student capacity will be tested in the feasibility study with a redistricting plan consistent with stated redistricting policy goals. Plans will be linked within and across organizational levels to form a short- and long-range redistricting plan. The Board of Education will review the plan and set direction as appropriate during the capital budget presentations each year. In years where redistricting is anticipated, the Attendance Area Committee will critique the plan, providing review and comment to the Superintendent.

**Recommending Redistricting Plans.** In years where redistricting is planned, staff will refine the goal directed short- and long-range plan based on the most current set of projections that conform to System-Level-Process Requirements. The Attendance Area Committee will apply the direction set by the Board of Education, the System-Level-

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<sup>1</sup> <http://www.hcpss.org/schoolplanning/>  
2013 Feasibility Study

Process Requirements, and the standards and factors in Policy 6010. Staff will make modifications as appropriate. The plan will be presented at regional meetings, critiqued by the public, and adjusted as appropriate.

Board of Education policy standards recommend consideration of redistricting under certain conditions. While these conditions include opening a school or adjusting to some other change, the most likely trigger is when school capacity utilization projections fall outside the minimum or maximum target range of 90–110 percent school capacity over a period of time.

When redistricting is considered, Policy 6010 School Attendance Areas identifies eleven factors to be considered in the development of plans:

1. Educational welfare of the impacted students in both the sending and receiving schools.
2. Frequency with which students are redistricted.
3. Impact on the number of students bused and the distance bused students travel.
4. Cost.
5. The demographic makeup and academic performance of students in both the sending and receiving schools.
6. Number of students to be redistricted.
7. Maintenance of feeder patterns.
8. Changes in a school's program capacity.
9. Impact on specialized or regional programs.
10. Functional and operational capacity of school infrastructures.
11. Building utilization. (90–110 percent where possible)

Capacity utilization over time and the number of students redistricted are often given the most attention. The other factors are emphasized to different degrees. The distribution of enrollment growth and capacity is never perfect, so it can be difficult to make plans that satisfy all factors and move few students.

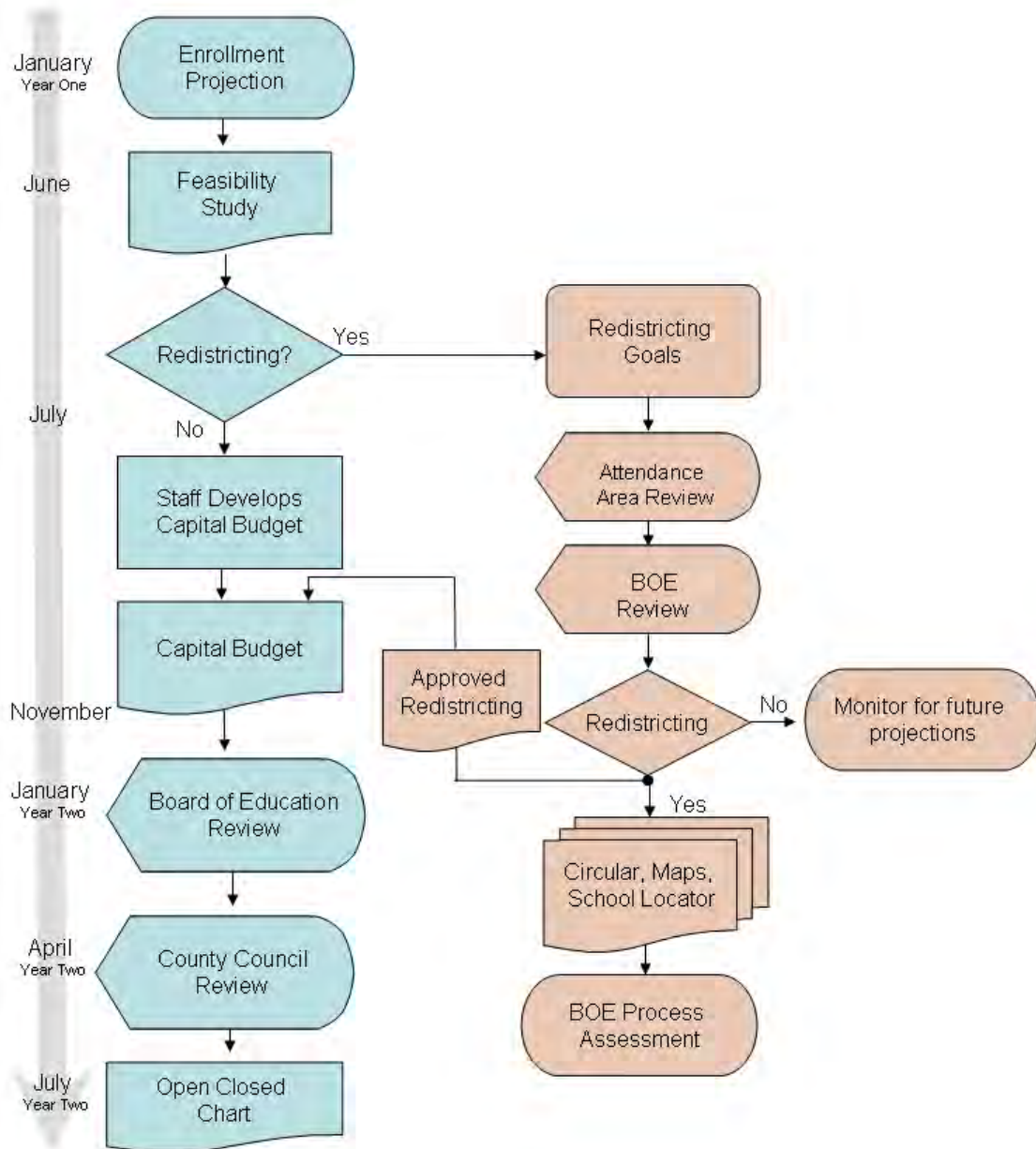
**Approving Attendance Area Adjustments.** In years where redistricting is occurring, the Board of Education will schedule public hearing(s) in accordance with Policy 2040 Public Participation in Meetings of the Board of Education on the proposed attendance area adjustments. Their deliberations will also include a public work session(s) with staff and the members of the Attendance Area Committee.

**Assessing the Process.** In years where redistricting is occurring, the Board of Education will assess the process at the end of the redistricting cycle. Modifications will be made as appropriate prior to the beginning of the next cycle.

After the feasibility study has introduced the new projection, tested redistricting scenarios, and recommended capacity adjustments, the capital budget is prepared. In years where redistricting is occurring, the capital budget and redistricting processes run in parallel, as illustrated in the following chart.



**Figure 1. Capital Budget and Redistricting Process**



## II. Executive Summary

This feasibility study forms the basis for the development of the Capital Improvement Program (CIP). In September 2013 the FY 2015 Superintendent’s Proposed Capital Budget will be presented, which includes the five-year CIP. The following sections highlight staff considerations included in this study which may be included in the CIP.

## ***A. Capacities***

Construction has begun on MS #20 to open in August 2014 within the Oxford Square development. Feasible redistricting to open this school is presented in this document. To ensure the fairest evaluation of the impact of potential redistricting on existing middle schools, HCPSS contracted with Gilbert Architects, Inc. to revise the 2007 capacity analysis for middle schools based upon current usage patterns. Revised capacities used in this document are the result of this analysis. (see <http://www.hcpss.org/schoolplanning> for report)

The additions and new schools approved as part of the FY 2014-2023 Long-Range Master Plan are included in the assumptions for this document. These include 100-seat additions at Deep Run ES (schematic design is scheduled for presentation to the Board in August 2013) and Laurel Woods ES (schematic design underway).

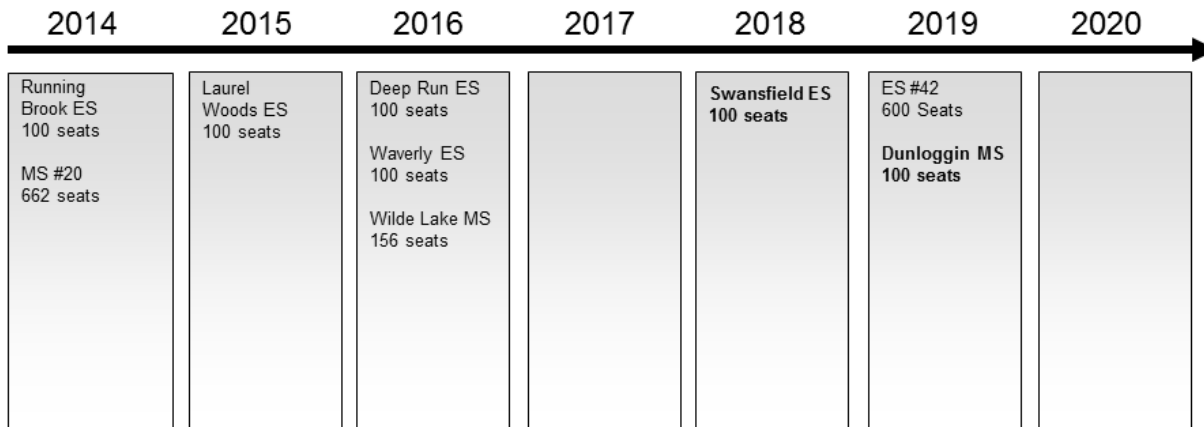
Longer term projects are included in the assumptions. For instance, the 100-seat addition at Waverly ES is to be funded for completion by FY 2017 to help manage growth in Ellicott City from Turf Valley. An addition to Wilde Lake MS will be critical to help manage growth in student enrollment stemming from the Columbia Town Center development. ES #42 is supported by this projection to address future needs in both the Northeastern and the Southeastern Regions. This study validates the need for all of the projects recently approved for the long-range plan. Looking ahead to the next capital budget, the following new projects will be recommended for the FY 2015-2024 Long-Range Master Plan:

1. Swansfield ES Renovation / Addition:  
Elementary redistricting is not planned, but growth will continue in West Columbia. A renovation project is already planned in the capital budget. It is recommended to build a 100-seat addition as construction swing space that will remain as future capacity.
2. Dunloggin MS Renovation / Addition: Future relief by redistricting appears to be unlikely. Growth will continue in this area but it is recommended that redistricting be postponed. A future renovation project is currently listed in the capital budget and building construction swing space that could remain as future capacity should be explored.
3. Future High School: In the long-term (after 2020), this projection indicates that approximately 1,000 high school seats are needed in the Northeastern Region and there are additional needs in the Southeastern Region. For this reason it is recommended that the land bank include a site large enough for a high school. This site should be somewhat central to the two regions. The capital budget should be adjusted to show a high school in the next decade.

Since the new general plan was approved, new development is pending which was not anticipated in our current long-range capital plan. HCPSS has redistricted to use as much western elementary capacity as the Board of Education believes is reasonable at this time.

Relocatable classrooms provide the short-term capacity to allow schools to operate as intended but they will not open areas to new residential growth. In future capital budgets, the county can invest in the infrastructure needed to support the additional residential growth. Likely candidates for consideration of short-term capacity include Hollifield Station ES, Ellicott Mills MS, and Howard HS.

**Figure 2. Planned School Capacity (New recommendations in bold)**



## ***B. Redistricting Approach***

It is our goal to use redistricting as infrequently as possible, moving as few students as necessary within the constraints listed in Policy 6010 School Attendance Areas. Redistricting is recommended for the Board of Education to consider this fall, for implementation in August 2014. This would be the third year of movement in a comprehensive plan designed to coincide with the completion of new construction projects. The primary goal of the proposed 2014 redistricting plan is to relieve the Northeastern and Southeastern Regions with the new capacity at MS #20. Redistricting to provide relief to Ellicott Mills MS and Dunloggin MS with available capacity in western schools is recommended for deferral. Substantial redistricting is already proposed in this plan and these options may be revisited in future feasibility studies.

The staff recommendation has evolved from the plan presented on page 30 of the June 2012 Feasibility Study which would have moved an estimated 2,117 students. This plan moves almost 1,000 fewer students and attempts to minimize domino movement through schools. The guiding principle for this change is to be less disruptive in areas not directly associated with the opening of MS #20. By taking a more strategic approach we can focus the redistricting discussion on what must happen to open a new school.

After the August 2014 redistricting is completed, staff recommends taking a break from redistricting for one year to five years to further assess the process and evaluate the long-range plan. The county has adopted a new general plan which will inevitably bring enrollment growth. Through the annual feasibility study and other reports we will examine future capital projects and redistricting as well as any viable alternatives. The amount of time we can delay longer term redistricting is linked to the rate of future crowding in specific areas like the Manor Woods ES or Howard HS attending areas.

Other proposals may be developed and evaluated by the Attendance Area Committees or in future feasibility studies. In many cases, staff recommendations are modified as a result of the Attendance Area Committee process and the Board of Education has ultimately adopted a different plan than was originally proposed in the feasibility study.

## ***C. Recommendations***

### **1. Plan must strike a balance between policy considerations.**

Scenario testing over the years has shown how difficult it is to satisfy all eleven policy considerations equally for redistricting without creating a plan that moves a tremendous number of students. The recommendations presented in this report are analyzed in relation to these eleven considerations. This discussion will help to initiate the 2013 attendance area review process.

### **2. Redistricting is required to open MS #20.**

The Board of Education will consider a redistricting plan this fall (middle school redistricting) which will conclude with the creation of the attending area for MS #20 which will help relieve a number of overcrowded middle schools along the Route 1 Corridor.

### **3. Defer future redistricting**

A pause for evaluation of process and long-term planning is recommended to follow redistricting to open MS #20. The opening of this school following the opening of Ducketts Lane ES in August 2013 relieves the immediate capacity needs in this area of the county, however future enrollment growth will continue. In the interim, policy, procedures, and methods should be evaluated and changed if necessary.

### **4. Long-term planning is needed for additional capacity.**

Staff continues to work closely with Department of Planning and Zoning and Public Works staff to actively pursue land acquisition opportunities for school sites in the eastern part of the county, including one large enough to accommodate a high school. This study continues to affirm the need for a second new elementary school in the east for 2019. Experience has shown that obtaining sites is difficult so a site should be added to the land bank this year. Other sites should be obtained to provide maximum flexibility for future capital needs.

The FY 2014 Capital Budget reflects projects that were first mentioned in this report last year. This report recommends several projects to add permanent and temporary classroom seats at existing locations in lieu of additional redistricting. The plans for the Running Brook ES (construction bidding pending) and Wilde Lake MS classroom additions will provide interim capacity for Columbia, though it is likely that an additional elementary facility will be required to support growth from the Columbia Town Center development in the next decade. Projections continue to support the need for elementary redistricting by 2017 to relieve overcrowding at Manor Woods ES associated with continuing Turf Valley growth. The planned 2016 addition at Waverly ES can maintain target capacity utilization until 2020, including the new attending area added in the last redistricting. Considering the limited potential for expanding schools outside of the sewer service area, a Turf Valley school site should be obtained.

### III. Planning Considerations

This section identifies planning assumptions and considerations. The annual projection is developed with assumptions about enrollment growth that have evolved over the years. Other planning considerations involve implications for capital facilities. Some of the previous planning assumptions have been adjusted, while others have been added for this study. This section presents a discussion of the major components and adjustments included in this year's planning assumptions.

#### A. Projections

Projections used for this study were generated in the spring of 2013. The projection model and methodology used by the Howard County Public School System (HCPSS) is based on historic cohort survival ratios—the number of students that “survive” from one grade level (cohort) to the next. Then the effects of new housing yields and the net effects of resale of existing housing stock and apartment turnover are added to the projection. Using the births and actual enrollment data history<sup>2</sup>, these variables are combined to project the total student enrollment at each school for September 30 of each future year. The projection is presented out to 2024 in this document, although it extends further into the future. It should be noted that the trends shown after the first five or six years are less reliable; however, certain decisions like site acquisition are appropriately informed by the later part of the projection.

Planning issues can become apparent by examining the consistency of the current projection to those made in previous years. When several years of enrollment projections are graphed, the basic trends are consistent in each of the projections. By using a ten-year series, these three consecutive annual projections share some years of data. This brings some stability to the projection but still allows the projections to indicate differences, so that changing trends can be apparent.

As shown in Figure 3, the 2013 projection is showing stronger enrollment growth than earlier projections. This is despite historically low birth rates. Most of the enrollment growth comes as “survival,” meaning the system is gaining new students in the transition from one grade to the next. The trend in the 2013 projection is for elementary enrollment to increase by 3,091 students by 2021. As a result of this enrollment growth, the capacity utilization of all elementary schools combined will begin to exceed 110 percent by 2025. Projects approved as part of the FY 2014 CIP can absorb this growth with some proposed additions noted in this document.

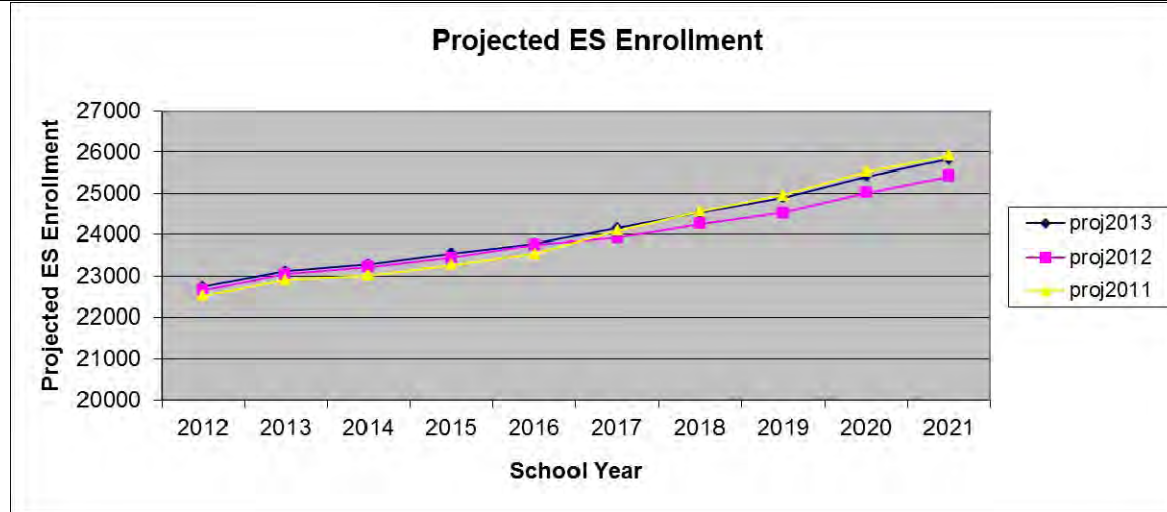
The trend in the 2013 projection is for middle school enrollment to increase by 1,966 students by 2021. As a result of this enrollment growth, the capacity utilization of all middle schools combined will begin to exceed 110 percent beyond 2017. Projected growth is in the east, and projects approved as part of the FY 2014 CIP can only partially absorb this growth. For the remaining needs, redistricting in later years along with future capacity additions should be studied.

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<sup>2</sup> A five-year series, in this case September 30, 2008 through 2012 enrollments, is used in the projection.

The trend in the 2013 projection is for high school enrollment to increase by 2,416 students by 2021. As a result of this enrollment growth, the capacity utilization of all high schools combined will begin to exceed 110 percent by 2021. Of this growth, 83 percent is in the Northeastern region. Current systemwide facilities can accommodate growth with some redistricting through this decade. Based on the long-term growth trends, land should be banked for future needs in the vicinity of the Northeastern region.

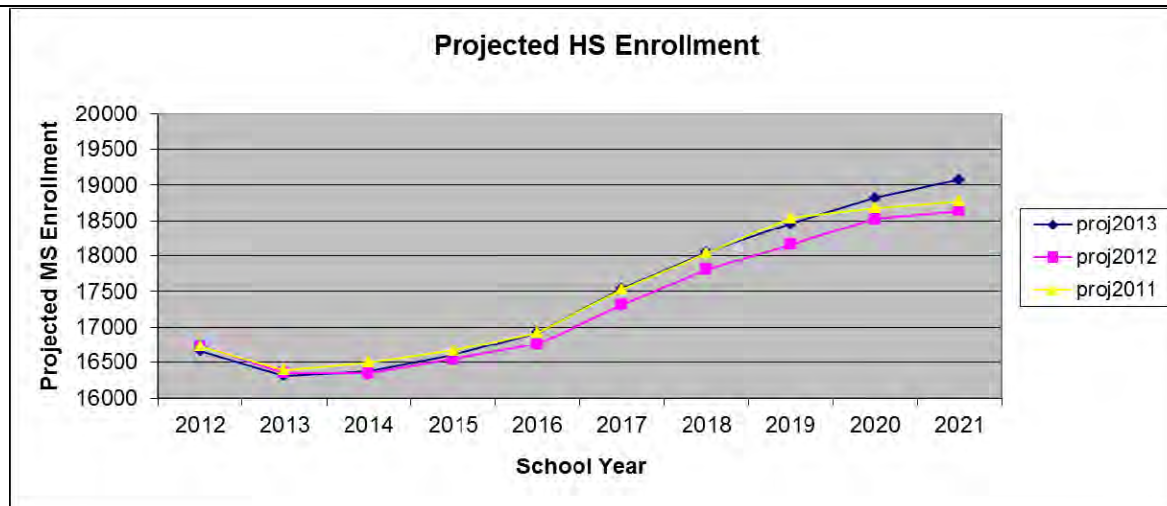
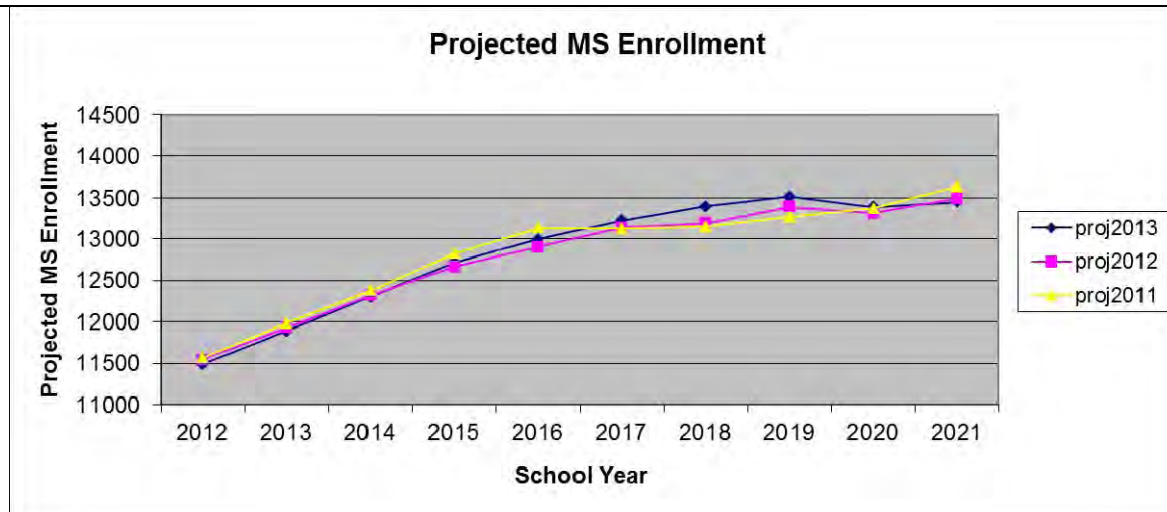
**Figure 3. Comparison of Projections**



The graphs on the left consider the elementary, middle, and high school projections for this year in comparison to the projections made for 2011 and 2012.

These overall depictions of the projection by level help to show general relationships in trends.

The 2013 appears to show stronger long-term enrollment growth at all three levels.





When developing the annual projection, School Planning staff reviews the differences between previous projections to determine if data inputs were correct or if any assumptions should be reconsidered. Projections are simply an organized way of making assumptions based upon available data. The explanation for differences between projections is a different set of data. Specific contributing factors to differences between projections include:

- 1. Changes in Development Horizon.** Each year Department of Planning and Zoning provides a housing projection for each school. New approvals or changes to phasing of existing projects can alter the timing and intensity of growth at specific schools.
- 2. Difficulty Projecting Kindergarten.** Kindergarten is typically the most difficult grade to project because the time between the data point (birth) and enrollment is five years as opposed to one for all other survival ratios.
- 3. Changing Housing Yields.** Lower elementary pupil generation will likely continue in the west. While most future housing in that area will be single family detached, environmental restrictions will limit supply and larger more expensive units are most likely. Higher housing yields continue to be observed for multi-family units. This impacts the northeast and southeast where many such units are under construction and more are anticipated. Individual projections for each school help to capture local effects.
- 4. Changes in Cohort Survival Ratios.** With each new data set, the newest survival ratio is added to the five-year historical base. If it is different, as has been the case with enrollment that is not associated with move-ins, a new historical average results. The new average is then amplified throughout the model, meaning the projection, over time, can be sensitive to a relatively small change in the survival ratio. The more immediate impact to projected enrollment is the initial size of the cohort.
- 5. Changes at Feeder Schools.** If enrollment in an elementary school feeding a middle school increases or decreases, the effect can be magnified at the middle school, particularly if several feeder schools change in the same direction. The effect of the outgoing cohort may also have an impact.
- 6. Review of Methodology.** The DeJong Richter Company has been retained to evaluate our current projection methodology and a report is anticipated in June.

## ***B. Capacities***

Capital planning and Adequate Public Facilities Ordinance (APFO) regulatory review<sup>3</sup> of development depend upon accurate capacity assessments and sound projections to derive capacity utilization projections. Capacities of schools dictate the calculation of capacity utilization percentage. This measure allows for a level comparison of the effect of projected enrollment. By Board of Education policy, a school with capacity utilization

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<sup>3</sup> Capacity is only relevant to APFO at the elementary and middle level. There is no high school capacity test.

over 110 percent is referred to as *over-utilized* while a school below 90 percent capacity utilization is referred to as *under-utilized*.

Middle school capacities have been adjusted in this study according to the attached study by Gilbert Architects. These adjustments are reflected in the post-measures chart. The system wide facility assessment survey by Gilbert Architects highlighted the deviations from the current middle school educational specification at facilities which predate this specification. The adjustments made to existing middle school capacities followed a review of all floor plans and interviews with administrators. The resulting formula balances classroom counts with a factor for deviations from educational specification to more equitably represent current capacity.

### **C. Regions**

This study presents school information in six regions. The regions were originally designed to correspond to planning regions used by the county. As new facilities have been built, the school planning regions were not adjusted. The service areas of the six regions do not match up by level—elementary, middle, and high. This disconnect, however, has not been a problem for developing projections and redistricting scenarios because modeling is done at the school and planning polygon level, with the results then summed for regions.

Howard County Department of Planning and Zoning has not needed HCPSS regions to align with their planning areas. The Adequate Public Facilities Ordinance Housing Unit Allocation charts allocate units based upon fixed planning areas. When new developments are proposed, the Adequate Public Facilities Ordinance School Test (elementary and middle) is based upon whether the assigned schools are open or closed. A region test is made at the elementary level only. The law closes a region to development if capacity utilization for the region exceeds 115 percent, even if the assigned elementary school does not exceed 115 percent. This condition is projected; however, by the time this condition occurs it is likely HCPSS will have taken steps to address the enrollment growth by building new capacity or redistricting.

The school regions remain important in making comparisons and discussion of the impact of real estate trends on student enrollment in different areas of the county. The regions serve a general purpose for identifying trends; but staff can re-aggregate data in several logical groupings of schools to study specific matters. A recent example is evaluation of proposed development of Downtown Columbia.

### **D. Capital Planning and Sewer Service Area**

Some of our facilities are outside of the sewer service area and require on-site treatment systems. While the systems currently in place are well designed and maintained, there is no guarantee that future requirements for discharge will not be more stringent. For this reason, staff now considers new sites that would require on-site waste treatment to be a significant cost consideration. Future capital planning will seek projects that have access to public sewer, consistent with the Maryland Smart Growth Act, and local planning

implementation which direct new residential growth into Priority Funding Areas within the sewer service area.

### ***E. Land Bank***

The HCPSS maintains a bank of sites<sup>4</sup> for future school construction. For many years, most of the land bank consisted of school site reservations that came out of Columbia planning and development. Approximately 67 acres of land remain in reservation. Howard County has aided the school system in the past through exchanges of county land where needed. Opportunities for additions to the land bank in eastern Howard County are under consideration. An elementary school site is also sought to accommodate Turf Valley development. The HCPSS will continue to reach out to local and state agencies as it searches for additional sites along the Route 1 Corridor and other areas of identified growth. To this end, the efforts of Howard County Government staff have been greatly appreciated. A full inventory of school sites is presented annually in the capital budget.

## **IV. Needs and Strategies**

Prior to examining the redistricting plan, it is necessary to review the implications of the new projection and identify needs and potential strategies. When school capacity utilization is outside of the acceptable range (90–110 percent), redistricting may be considered

### ***A. Elementary School Section***

Two phases of elementary redistricting have been completed. Most schools have been balanced by these changes and associated capital projects. A surplus of capacity will remain in the Western Region due to lower than anticipated pupil generation rates and larger facilities. Some of this capacity was used to provide relief to the Southeastern Region in a redistricting approved in November 2011. Future redistricting may be required to relieve Manor Woods ES as early as 2017, pending the outcome of the current process reviews. Future redistricting to open a second eastern elementary school will occur in 2019 or later.

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<sup>4</sup> The land bank is listed in the Capital Budget , in Appendix E on page 74.

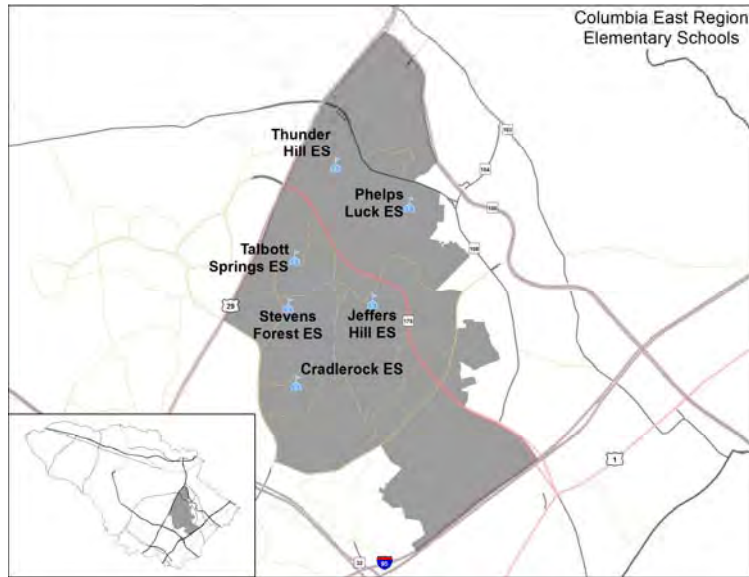
## Columbia East Region

**Need:**

Redistricting and new capacity are serving the region.

**Strategy:**

Monitor enrollment projections in future studies.



The schools in this region will substantially remain within target as a result of approved redistricting and capital projects which will have been completed by December 2013 at Thunder Hill ES, Phelps Luck ES, and Stevens Forest ES.

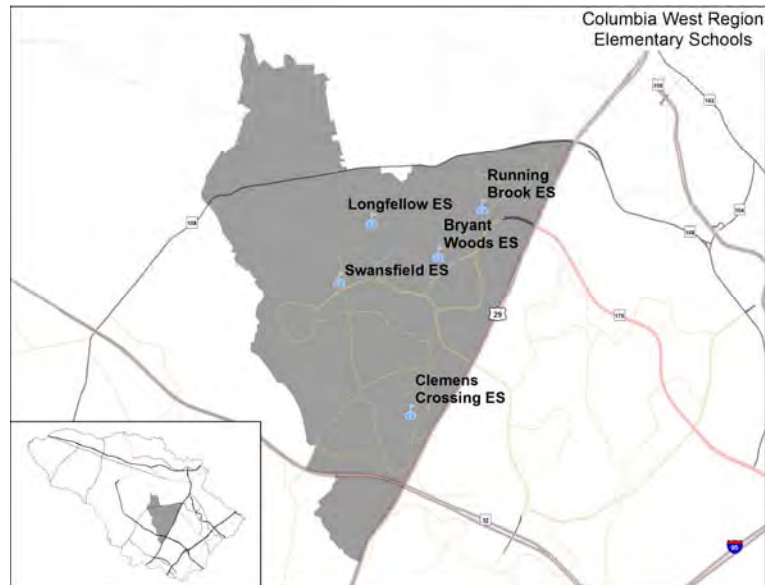
## Columbia West Region

**Need:**

The region exceeds 110% by 2019 in this projection, ultimately requiring the need for an additional elementary school in approximately a decade.

**Strategy:**

Provide interim capacity with an addition at Running Brook ES. Reserve Faulkner Ridge site.



Investment in a 100-seat addition at Running Brook ES has been a key capital project for managing growth in this area. It is planned to open in August 2014. Even with this addition, Running Brook ES is expected to exceed 110 percent utilization by 2017. While the Running Brook ES addition buys time in the Columbia West Region, some combination of new capacity and redistricting will be required to accommodate growth in the area. A redistricting strategy alone, which uses schools that are reasonably nearby, will not provide an adequate solution to accommodate the projected growth. Faulkner

Ridge Center, previously used as a staff development and training facility, was closed on July 1, 2011. This site should be retained for redevelopment as a future school.

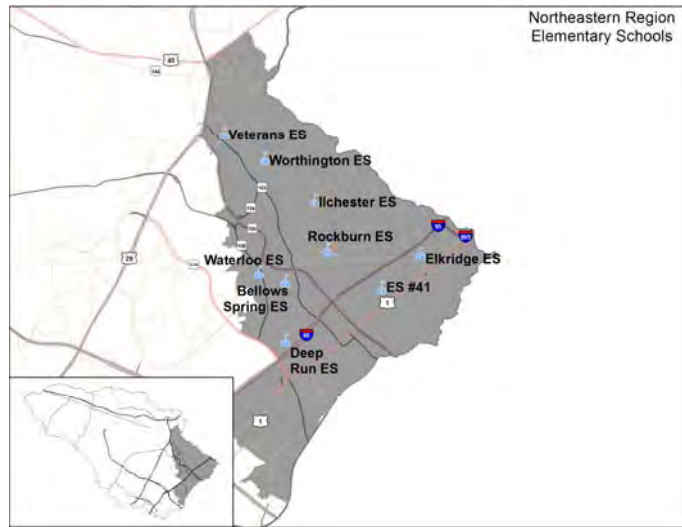
### Northeastern Region

**Need:**

There is available capacity in this region until 2018.

**Strategy:**

Monitor enrollment following approved redistricting. Consider a second new school for 2019.



Capacity utilization at Ducketts Lane ES, which opens this coming August in the northern Route 1 Corridor, will exceed 110 percent utilization by 2015. A second new elementary school in the eastern part of the county is needed as early as 2019, when the region will exceed 110 percent and require approximately 600 seats. Veterans ES will exceed 110 percent by 2015 but this was an intended result of redistricting approved last fall, when additional redistricting to the west was deferred. Veterans ES will increase to 120 percent utilization, but enrollment then decreases over time.

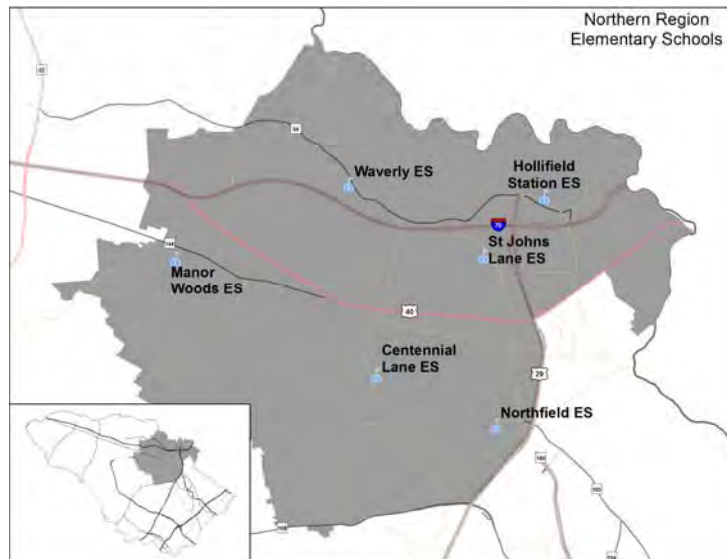
### Northern Region

**Need:**

Manor Woods ES requires relief after 2017.

**Strategy:**

Consideration of redistricting or capital options in later years.



In the years beyond 2017, Manor Woods ES is projected to be above the 110 percent capacity utilization standard and eventually trends above 200 percent, a condition which has varied depending upon the timing of the Turf Valley development. A key feature of capital planning for this development is the Phase II addition at Waverly ES. Constructing

this addition by 2017 (the current phasing in the Department of Planning and Zoning housing projection is a little less aggressive for single family detached homes this year) and subsequent redistricting can help relieve overcrowding at Manor Woods ES. A new elementary school in Turf Valley that is sized to the current educational specifications is needed in the next decade and could serve as a replacement for West Friendship ES. Much of the territory for existing schools will be bused no matter which school they are assigned, but a Turf Valley school could have an assigned walk area (HCPSS does not currently own a site within the Turf Valley development).

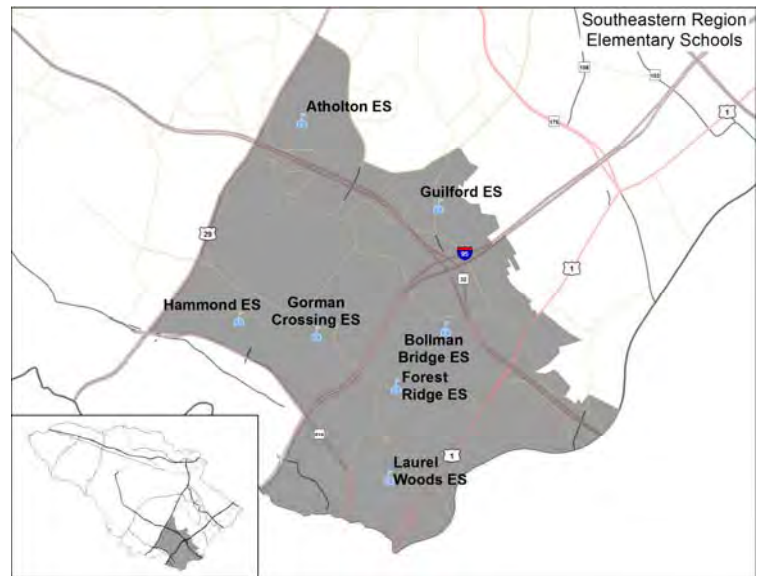
### **Southeastern Region**

**Need:**

Future enrollment growth is projected, primarily at Bollman Bridge ES and Forest Ridge ES.

**Strategy:**

Monitor projections and use temporary capacity. Obtain a site for the land bank.



Schools in the region, with the exception of Forest Ridge ES are projected to open below 110 percent utilization at the start of this coming school year. Temporary capacity is being provided and more may be used in the near future. The region will not exceed 110 percent utilization until 2017. Growth continues in the region, supporting the opening of the next elementary school which is currently planned for 2019.

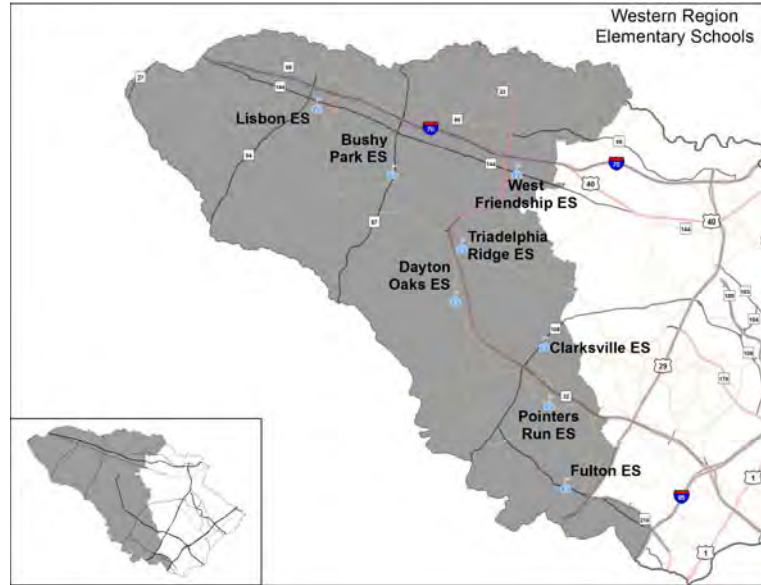
**Figure 6.**  
**Western Region**

**Need:**

More fully utilize capacity in the Western Region.

**Strategy:**

Monitor projections.  
Proceed with evaluation of West Friendship ES closure.



Elementary capacity in the Western Region exceeds need. Twelve years ago, overcrowding in western elementary schools was significant. The September 30, 2000, enrollment report indicated that the region was at 120 percent capacity utilization. The construction of Dayton Oaks ES, the replacement of Bushy Park ES and lower enrollment trends for the region have lowered the overall capacity utilization, which is now approaching 70 percent for the region. The projections which preceded the construction of the new Bushy Park ES and Dayton Oaks ES anticipated larger pupil generation rates than the existing housing stock has produced. Future redistricting plans outlined in earlier sections of this document address Manor Woods ES by using some of this capacity in other parts of the system as was done to balance the Southeastern Region in 2011. West Friendship ES has consistently shown declining enrollment in recent projections. West Friendship ES operates with a septic system outside the sewer service area and could eventually be subject to more stringent requirements which may require expensive upgrades.

Previous studies have examined the possibility of closing West Friendship ES and using existing capacity in the short term. Eventually a new school is likely in proximity to the Turf Valley development and within the sewer service area. This report recommends proceeding with the closure of West Friendship ES because excess capacity in the Western Region persists and the funds for a modern waste water system are more wisely invested in construction of a new school located within the sewer service area. The operating cost savings of closing West Friendship ES have been estimated to be approximately two million per year. Staff positions would be absorbed through vacancies across the system.

The closure of a school is governed by Policy 6070 Discontinuation of School Use. The policy requirements for closing the school coupled with the necessary redistricting will take a minimum of fourteen months. At the earliest, closure could happen in August 2014, but no later than August 2017 to coincide with Manor Woods ES redistricting plans.

The first step is to have a technical analysis and report done in-house or by a consultant. Plans must be made for the appointment and staffing of an advisory committee which will review the school closure report.

## ***B. Middle School Section***

At the countywide level, middle school capacity utilization reaches 110 percent in 2017. While it is possible to balance all schools countywide, the challenge has been that the capacity and enrollment growth do not share the same geography. The Columbia West Region exceeds 110 percent capacity utilization by 2014 and the Northern Region exceeds 110 percent by 2015. The Northeastern and Southeastern Regions combined exceed 110 percent capacity utilization in 2014. The Western Region is within acceptable levels but there are specific schools exceeding policy targets. The Columbia East Region has surplus capacity. The later years of the projection seem to indicate the need for more capacity within the long-range plan and should be monitored in future planning analysis. For now the projection certainly supports acquisition or development of additional school site options in the Route 1 Corridor through agreements with other agencies or developers.

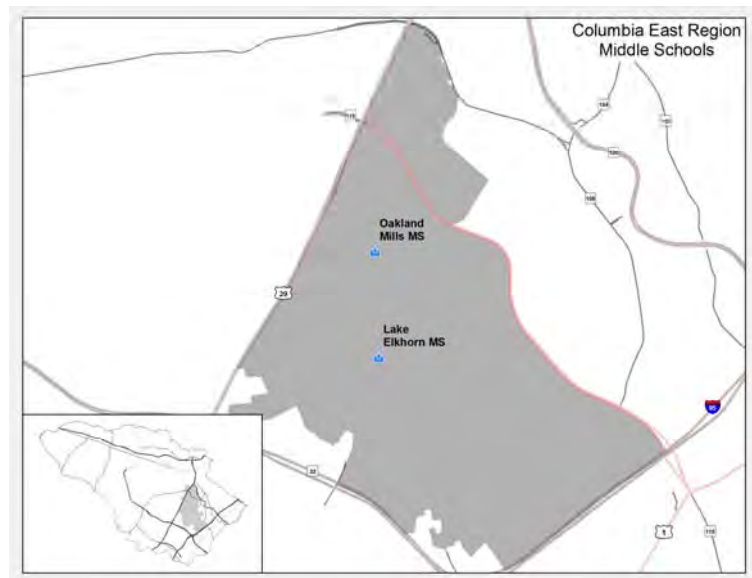
### **Columbia East Region**

**Need:**

Some capacity exists in this region.

**Strategy:**

Monitor long-term needs.



Lake Elkhorn MS has some available capacity for the foreseeable future. While it is geographically positioned to provide some relief to schools in the Northeastern Region, the enrollment of Northeastern Region schools including Bonnie Branch MS, Elkrige Landing MS, and Mayfield Woods MS continues to increase throughout the projection well above any available capacity in Columbia East.



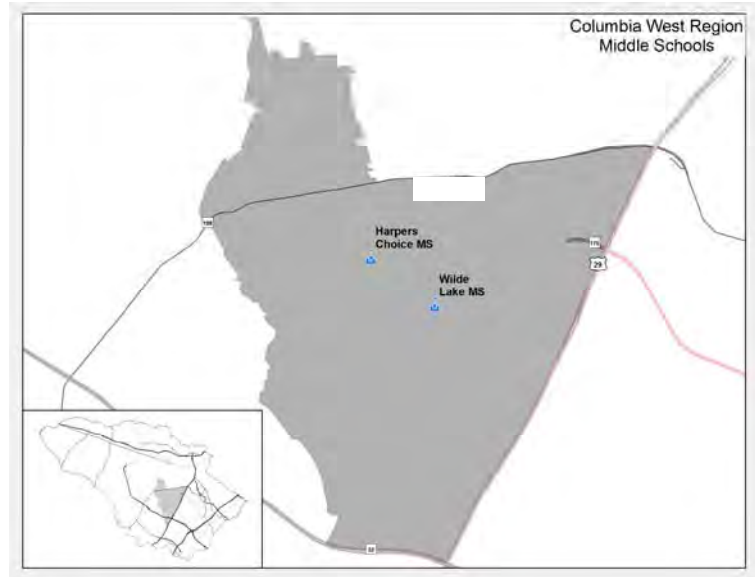
## Columbia West Region

### Need:

Enrollment exceeds 110% of regional capacity in 2014.

### Strategy:

Utilize temporary capacity until an addition can be built at Wilde Lake MS.



The Columbia West Region begins to show capacity utilization above 110 percent in 2014 and the condition continues for the rest of the projection. Wilde Lake MS begins to need relief starting in 2013, and an addition which is scheduled to begin in 2015, is planned as part of the renovation of that school. It is possible that some relief can also be provided by redistricting to Clarksville MS but this is not redistricting associated with the opening of a new school so the option is deferred.

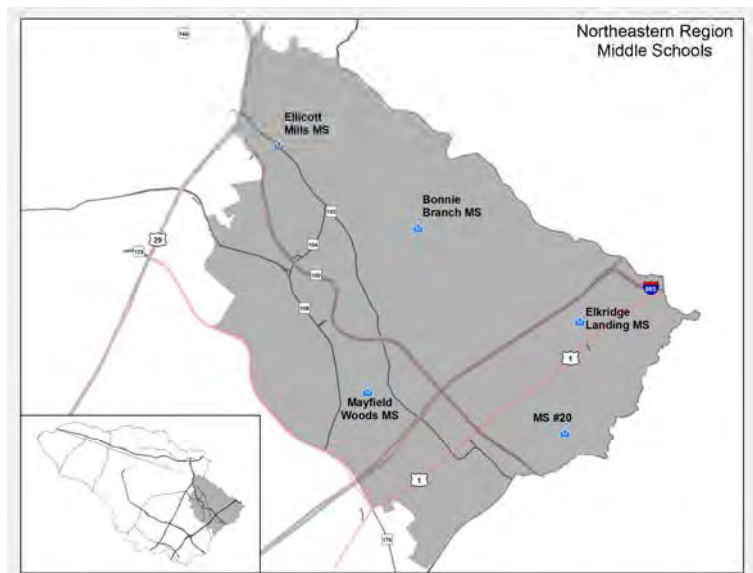
## Northeastern Region

### Need:

Significant enrollment growth is projected. Available capacity in this region as well as adjacent regions is not sufficient to absorb long-term projected enrollment growth.

### Strategy:

Long-term growth trends in this region can only be accommodated by the opening of MS #20 in August 2014 (currently under construction).



All middle schools in the region will be relieved of overcrowding by the opening of MS #20 except Ellicott Mills MS. This school is built to the current middle school educational specification so permanent expansion is not recommended, and a significant number of relocatable classrooms will be required until an alternative solution is agreed

upon.

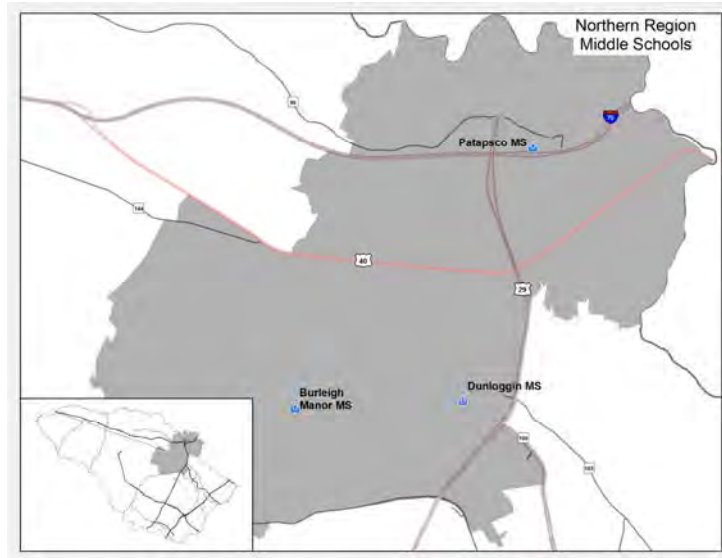
### **Northern Region**

**Need:**

Enrollment exceeds 110% of regional capacity after 2014.

**Strategy:**

Monitor long-term needs.



In the years beyond 2014, the Northern Region is projected to be above the 110 percent capacity utilization guideline, with between 200–300 seats needed in the region through 2020. Since this area cannot be relieved by new capacity at MS #20, redistricting seems unlikely. Fortunately Dunloggin MS and Patapsco MS are scheduled for systemic renovation in the next few years. It may be possible to design swing space into these renovations or use temporary capacity. When continued growth in the adjacent Northeast Region is factored in with the needs in this region, the land bank site on Marriottsville Road will probably be needed to serve as a middle school in the future.

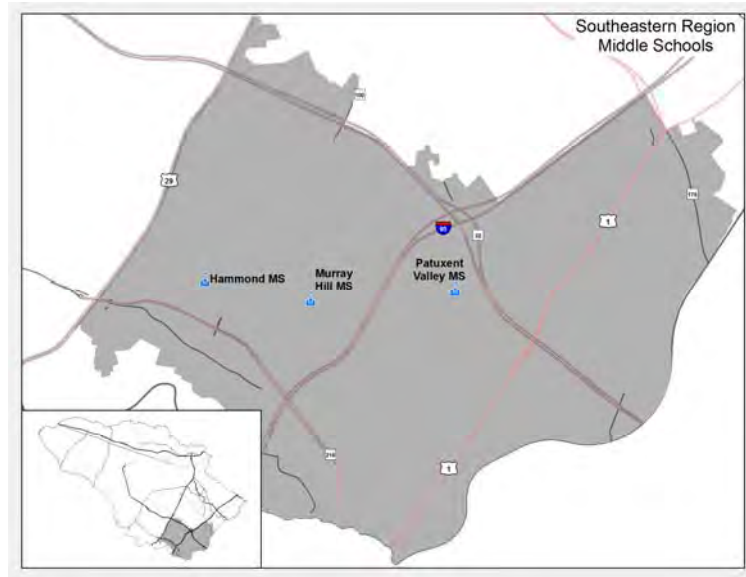
## Southeastern Region

### Need:

Significant enrollment growth is projected. Available capacity in this region, as well as adjacent regions, is not sufficient to absorb long-term projected enrollment growth.

### Strategy:

Long-term growth trends in this region can only be accommodated by the opening of MS #20, which is now under construction.



Murray Hill MS presently exceeds 110 percent utilization. Patuxent Valley MS will exceed 110 percent capacity utilization in 2016. The region will exceed 110 percent utilization in 2015 and enrollment will continue to rise for the foreseeable future. As in the Northeastern Region, new development on Route 1 is affecting these projections. The opening of MS #20 will serve both the Northeastern and Southeastern Regions, and will address most of the need expected in the region through the end of this decade. Projected needs beyond this time period will be monitored.

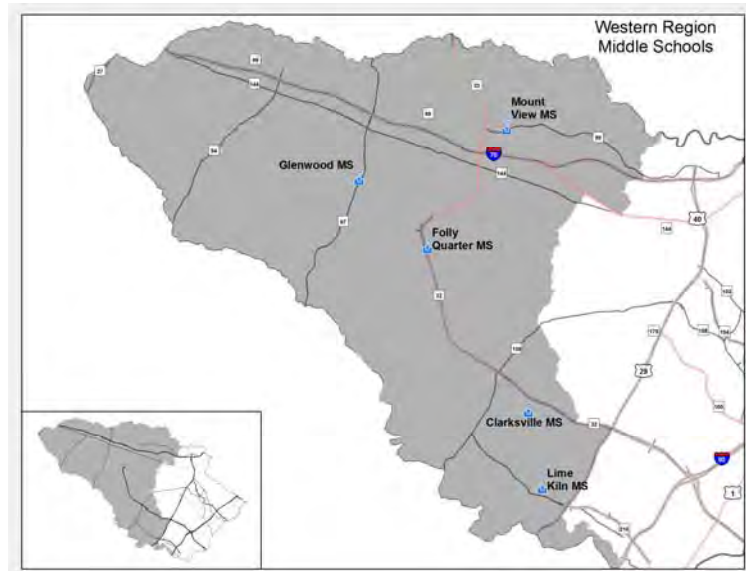
## Western Region

### Need:

Mount View MS capacity appears to be adequate.

### Strategy:

Monitor long-term needs.



Capacity utilization in the region remains within targets throughout the projection. Mount View MS is no longer projected to exceed 110 percent capacity utilization in later years. The use of the Marriottsville Road site for a new Western MS will ultimately serve to relieve the Northern and Columbia West Regions.

## C. High School Section

Countywide high school capacity utilization meets policy targets until 2021. While the capacity exists to balance all schools countywide, the challenge has been that the capacity and enrollment growth do not share the same geography. The Northeastern Region, comprised of Howard HS and Long Reach HS, exceeds 110 percent capacity utilization by 2015. The Western Region includes Reservoir HS which exceeds 110 percent capacity utilization by 2017. In the long-term (after 2020), this projection indicates that approximately 1,000 seats are needed in the Northeastern Region and there are additional needs in the Southeastern Region. For this reason it is recommended that the land bank include a site large enough for a high school. This site should be somewhat central to the two regions. The capital budget should be adjusted to show a high school in the next decade.

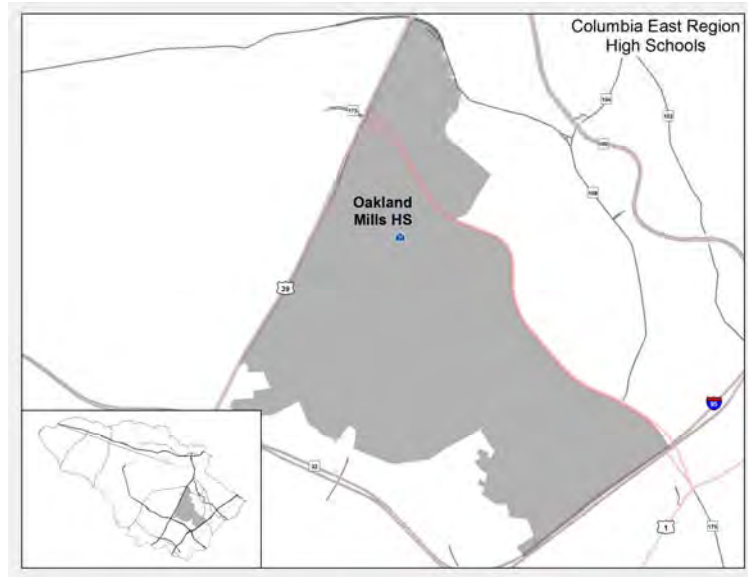
## Columbia East Region

### Need:

Some capacity exists in this region.

### Strategy:

Consider using capacity to help absorb Route 1 Corridor growth.



The Columbia East Region high school is Oakland Mills HS. Capacity exists at this school for the foreseeable future. Capacity may be utilized to relieve the Northeastern Region, which includes Long Reach HS and Howard HS. Long-term planning discussions are likely to be framed by future additions to the land bank.

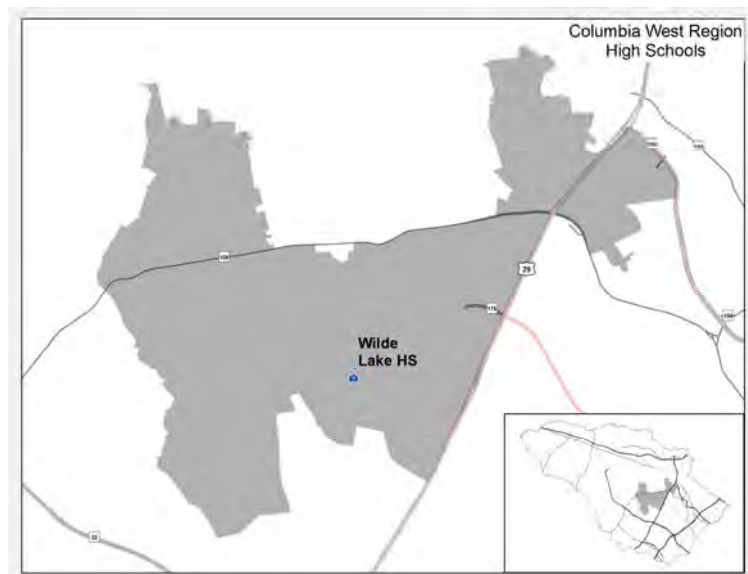
## Columbia West Region

### Need:

Capacity utilization is below 110% for Wilde Lake HS until 2018, the one school in this region.

### Strategy:

Monitor Columbia Town Center Proposal. Only redistrict into this region if absolutely necessary.



The Columbia West Region high school is Wilde Lake HS. The projection for this school remains between 90–110 percent utilization until 2018. With only a few classrooms of remaining capacity, plans to redistrict students into Wilde Lake HS should be avoided unless absolutely necessary. This projection models the effect of the Columbia Town Center proposal and adequate capacity exists to accommodate growth at Wilde Lake HS until 2018.

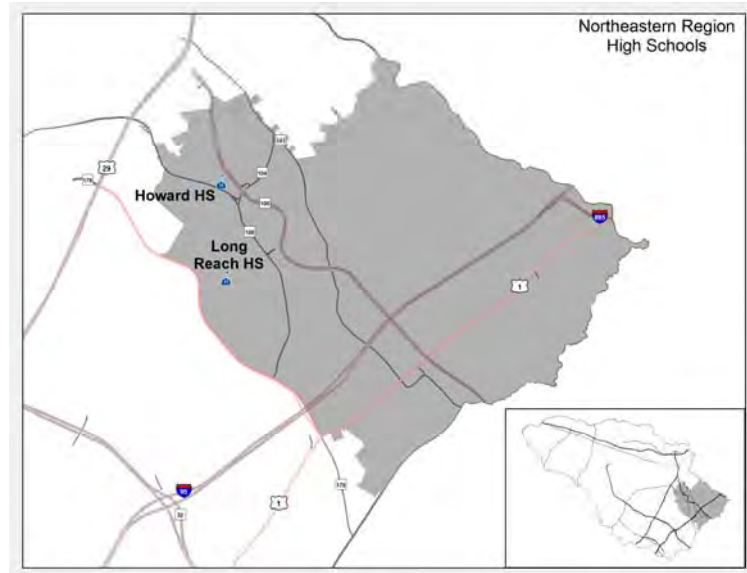
### Northeastern Region

**Need:**

Significant enrollment growth is projected. Available capacity in this region is not sufficient to absorb long-term projected enrollment growth.

**Strategy:**

Evaluate capital planning options of additions and banking a future school site.



Howard HS and Long Reach HS serve the Northeastern Region. Howard HS already is exceeding 110 percent utilization. In 2015 the region will exceed 110 percent capacity utilization and the trend is to steadily worsen through the projection, exceeding 120 percent by 2017. Temporary capacity is the best strategy at this time. A new addition to Howard HS is not recommended and would be inconsistent with the Board evaluation of high school capacities three years ago. The movement of regional programs is not recommended. Space on the campus is confined so additional single relocatable classrooms are less likely. A modular building would make more efficient use of space.

Redistricting between Howard HS, Long Reach HS, and Oakland Mills HS in 2016 has been presented in previous reports as an interim measure for capacity relief. Other more comprehensive redistricting plans may be considered. Oakland Mills HS represents the closest interim option for capacity relief; however, it can only provide about 150 seats. Additional redistricting to balance the remaining needs requires distant capacity and is less likely. It should be noted that three more enrollment projections and feasibility studies come before a decision is likely on this redistricting. Long-term planning discussions are likely to be framed by future additions to the land bank.

In the long-term (after 2020), this projection indicates that approximately 1,000 seats are needed in the Northeastern Region and there are additional needs in the Southeastern Region. For this reason it is recommended that the land bank include a site large enough for a high school. This site should be somewhat central to the two regions. The capital budget should be adjusted to show a high school in the next decade.

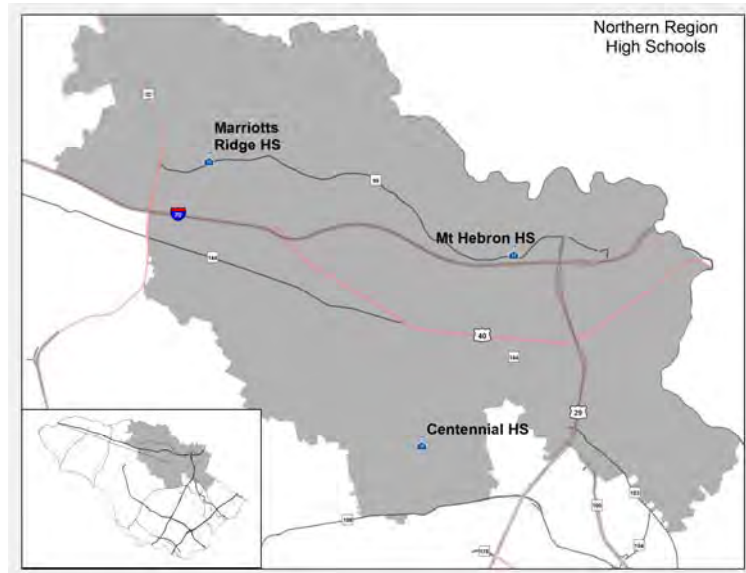
## Northern Region

### Need:

Capacity needs in the region have been addressed with the expansion of Mt. Hebron HS.

### Strategy:

Monitor long-term needs.



The Northern Region has balanced capacity utilization for most of the projection. Centennial HS and Mt. Hebron HS will need to be monitored given the projected utilization above 110 percent after 2017. Capacity remains at Marriotts Ridge HS for this region.

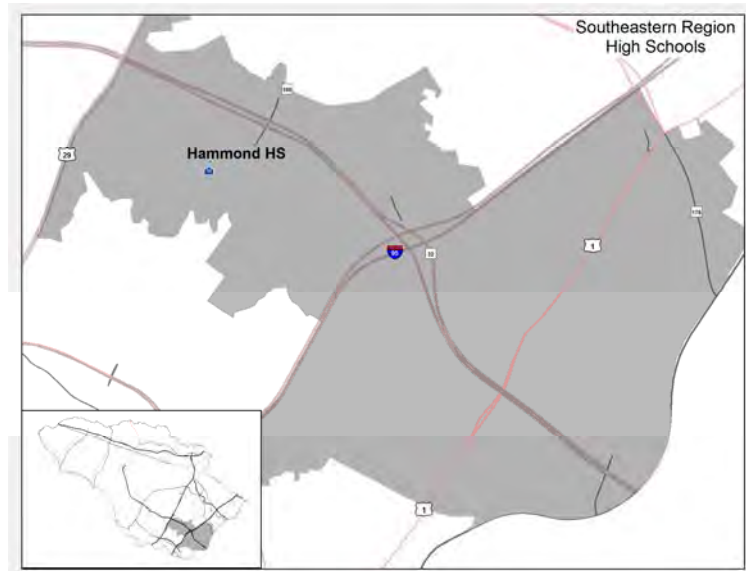
## Southeastern Region

### Need:

Capacity is adequate through 2021.

### Strategy:

Monitor long-term needs.



The Southeastern Region exceeds 110 percent capacity utilization in 2021 and steadily increases later in the projection. For now the existing facility is matched to projected growth within most of the long-range planning period but future growth supports the recommendations of banking a high school site and adding plans for a facility to the long-

range plan.

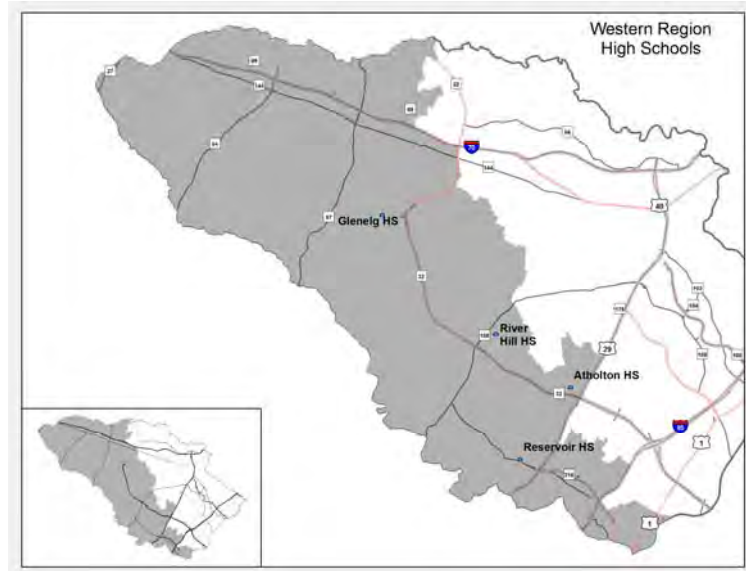
## Western Region

### Need:

Relief is needed at Reservoir HS after 2018.

### Strategy:

Monitor long-term needs.



The Western Region does not exceed 110 percent capacity utilization, and no redistricting or major capital planning appears to be necessary through most of the decade. Reservoir HS should be monitored because this projection indicates it will exceed 110 percent utilization by 2017. Given the areas of the Reservoir attending area in the Route 1 Corridor, eventually this may be addressed with a new high school

## V. Specific Recommendations for Phased Redistricting

This report presents the final phase of comprehensive redistricting to open Ducketts Lane ES and then MS #20.

### A. 2014 – New Middle School Capacity – Middle School Redistricting

This redistricting is designed to make a new attending area for MS #20. The school would provide relief to Elkridge Landing MS, Mayfield Woods MS, and Patuxent Valley MS. In turn these schools can provide relief to other schools in the Northeastern and Southeastern Regions.



<b>Table 1. 2014 Middle School Redistricting</b>			
<b>Sending</b>	<b>Receiving</b>	<b>Polygons</b>	<b># Students</b>
Bonnie Branch MS	Elkridge Landing MS	86, 1086, 1091, 2091	65
Bonnie Branch MS	Mayfield Woods MS	76, 83, 1076, 1083	106
Elkridge Landing MS	MS #20	37, 1036, 1037, 2037, 2043	155
Ellicott Mills MS	Bonnie Branch MS	1074	0
Folly Quarter MS	Clarksville MS	1176	0
Hammond MS	Lime Kiln MS	7, 8, 221, 1007, 1008, 1221, 1227, 2221	170
Mayfield Woods MS	MS #20	33, 35, 266, 1033, 1035, 1082, 1266, 2035, 3035, 4035	151
Murray Hill MS	Hammond MS	273	0
Murray Hill MS	Patuxent Valley MS	1, 12, 46, 116, 260, 267, 272, 1001, 1046, 1116, 1260, 1272, 2046, 3046	247
Patuxent Valley MS	Hammond MS	17, 18, 1017, 1018, 2048	92
Patuxent Valley MS	MS #20	26, 27, 30, 32, 48, 1026, 1027, 1030, 1032, 1048, 2030, 3048	195
		<b>Total</b>	<b>1,181</b>

### ***B. 2017 – Elementary School Redistricting***

The plan below was presented in the June 2012 Feasibility Study and will be modified in the June 2014 Feasibility Study depending upon the status of West Friendship ES. (The plan is not included in the charts for this report.) The current recommendation is to close West Friendship ES as early as August 2014, but no later than August 2017. The timing and nature of the redistricting required will change depending upon the final closure decision. Any plan will utilize available Western Region capacity at Bushy Park ES and Triadelphia Ridge ES. Ultimately a new school built in accordance with the elementary educational specification of 600 seats is needed and is likely to be built in Turf Valley.

<b>Table 2. 2017 Elementary School Redistricting</b>			
<b>Sending</b>	<b>Receiving</b>	<b>Polygons</b>	<b># Students</b>
Manor Woods ES	Triadelphia Ridge ES	178, 179, 1178, 1179	62
Manor Woods ES	Waverly ES	164, 167, 1164	124
Manor Woods ES	West Friendship ES	304, 305, 1304, 1305	25
West Friendship ES	Bushy Park ES	224, 229, 231, 232, 1229, 1231, 2229	71
		<b>Total</b>	<b>282</b>

### ***C. High School Redistricting***

Redistricting between Howard HS, Long Reach HS, and Oakland Mills HS in 2016 has been presented in previous reports as an interim measure for capacity relief. A table with polygon moves is not presented at this time. It is likely that the review of the current

redistricting process may generate different options and alternatives than those previously presented. Long-term planning discussions are likely to be framed by future additions to the land bank.

## **VI. Evaluation**

### ***A. Scoring Methodology***

This section evaluates the recommendation for 2014 redistricting. The supplement for this document includes an evaluation from the perspectives of the individual changes after the middle school redistricting is completed in 2014, and assumes that the proposed elementary redistricting is completed in 2017. The evaluation of the plan is based upon the considerations listed in Policy 6010 School Attendance Areas. This policy is published on the HCPSS website.<sup>5</sup> Summaries are prepared comparing the plan at each level (elementary, middle, and high) help show how the plan fares in light of the criteria for consideration set by Policy 6010 and are included in the Supplement to the 2013 Feasibility Study. These include explanations and other tabulations of the effects of the 2013 proposal and the aggregate plan. Should additional plans be proposed, they can be evaluated in the same manner. These summaries help make comparisons between scenarios but with multiple considerations there is no simple formula to calculate which plan is best.

Plans are also evaluated under two capacity utilization measures. The first is the 115 percent capacity utilization standard for the Adequate Public Facilities Ordinance (APFO) school test. The second is the 90 percent to 110 percent capacity utilization target in Policy 6010 School Attendance Areas. Impacts of the suggested strategy in this feasibility study are illustrated in a pre- and post-measures approach which is attached to this document.

### ***B. 2014 – Middle School Redistricting***

The proposed plan results in the students receiving Free and Reduced-Price Meals Services (FARMS) and the Maryland School Assessments (MSA) score distribution staying about the same among all schools at the middle school level. The consecutive years schools are under 110 percent utilization is improved by this plan by an average of one year. Target utilizations in 2014 are a strength. The weaknesses shown in later years support continued efforts to acquire new property. Travel distances are slightly increased by this plan.

This plan would most likely have similar costs to the present transportation cost based upon a preliminary evaluation by Pupil Transportation staff. A number of factors including bell times, multi-level bus assignments, and fuel costs will factor into the actual cost and are difficult to determine at this time.

The plan results in the movement of approximately 10 percent of current middle school enrollment. This plan proposes to move 1,181 students. By way of comparison, the middle school redistricting plan presented last year would have moved a projected 2,866 students.

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<sup>5</sup> <http://www.hcpss.org/board/policies/6010.pdf>

The plan eliminates the only middle school island (non-contiguous attending areas) which was assigned to Bonnie Branch MS. Remapping the nonresidential area that includes the Howard HS campus links the Bonnie Branch attending area.

This plan does not propose to move any students more than once at the middle school level in a three-year period. The last redistricting in this area occurred in 2007 between Mayfield Woods MS and Elkridge Landing MS. In past years when redistricting was discussed, concerns were articulated to the Board that students who were impacted by the elementary redistricting would also be impacted by the middle school redistricting. Because the openings of Ducketts Lane ES and MS #20 are in consecutive years, a rising fifth grader directly impacted by elementary redistricting will simply rise into the new middle school assignment and complete three years at the same middle school.

The plan decreases small feeds from elementary to middle school which is a strength. Three “double small feeds” (geography where the feed is below 15 percent at both levels) are eliminated by this plan.

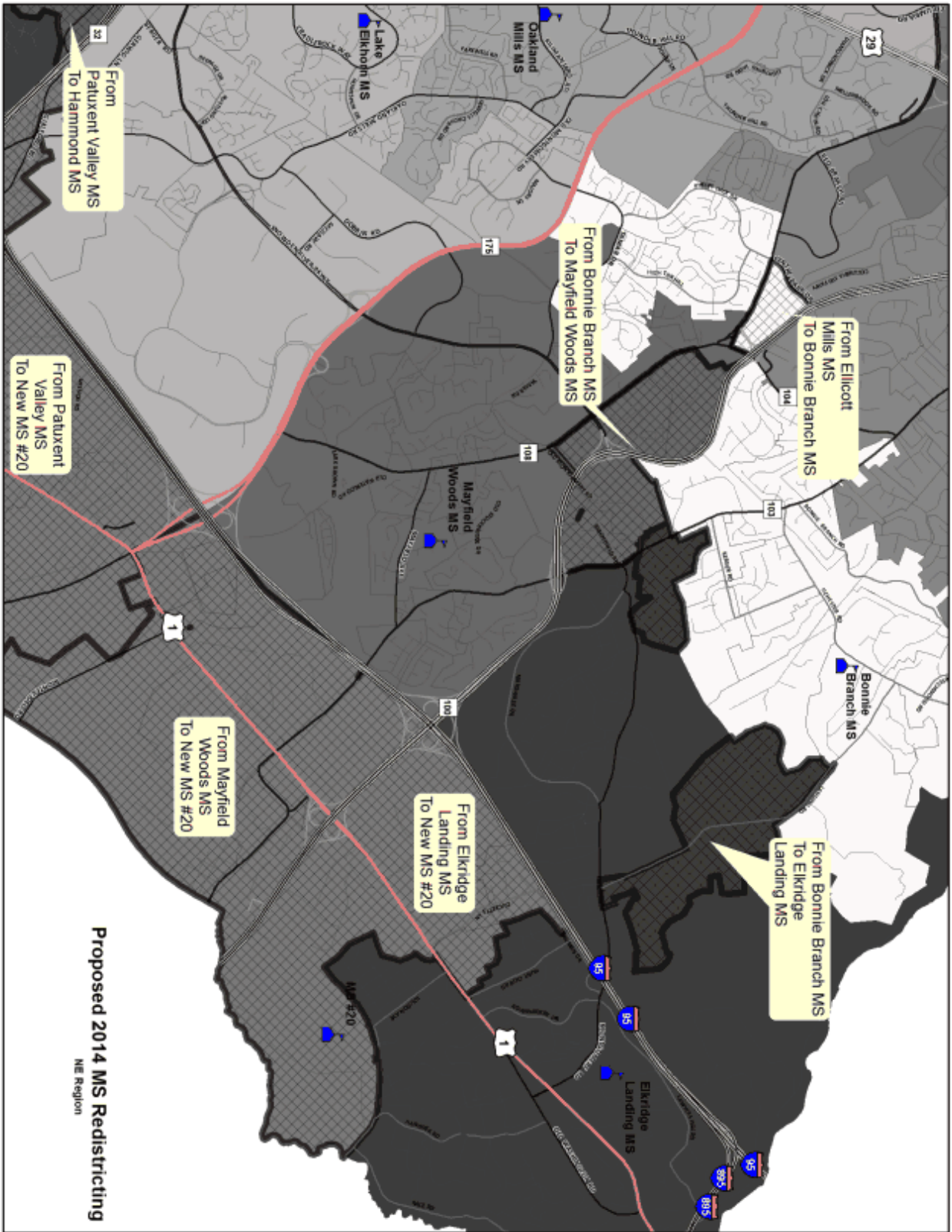
Because this plan is more focused along the Route 1 Corridor, it does not make as much use of available capacity at existing schools. As a consequence it does not reduce the average number of years schools have capacity utilization below 90 percent. The opening of MS #20 helps to reduce the average number of years schools have over 110 percent capacity utilization.

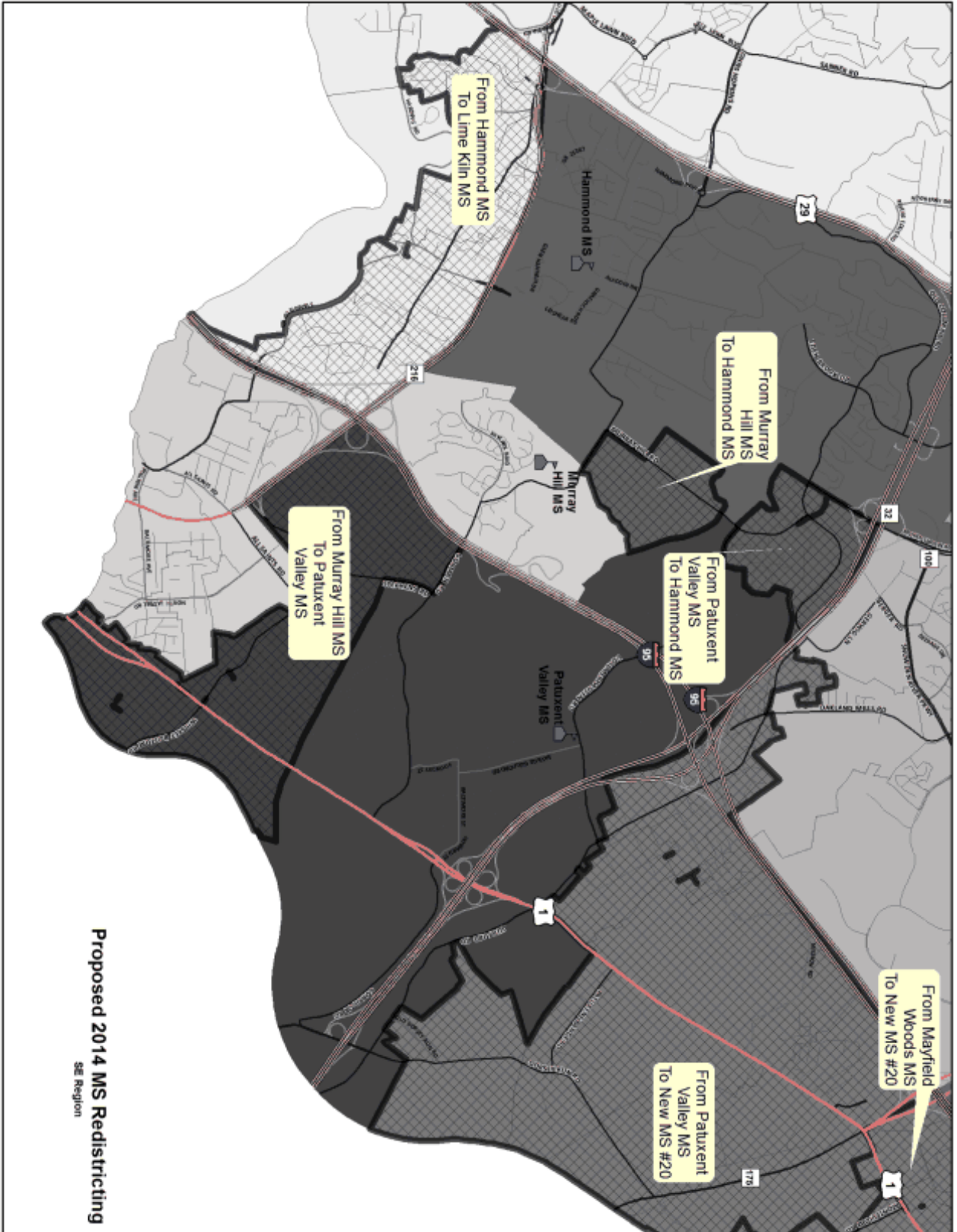
**Table 3. 2014 Plan Assessment**

Middle School Summary		Current	Aggregate Plan	Assessment Criteria
Balance FARMS %	(MS Average = 17%)		14.30	Standard Deviation reduced by 25% or more = Strength; increased by 25% or more = Weakness; otherwise Negligible
	StdDev	14.36	NEGLIGIBLE	
Balance MSA Reading Pass Rate	(MS Average = 93%)		5.20	Standard Deviation reduced by 25% or more = Strength; increased by 25% or more = Weakness; otherwise Negligible
	StdDev	5.46	NEGLIGIBLE	
Balance MSA Math Pass Rate	(MS Average = 92%)		5.68	Standard Deviation reduced by 25% or more = Strength; increased by 25% or more = Weakness; otherwise Negligible
	StdDev	5.86	NEGLIGIBLE	
Consecutive Years Under 110%	# of Schools Strengthened	NA	5	Mean increased by 1.0 or more = Strength; reduced by 1.0 or more = Weakness; otherwise Negligible
	# of Schools Weakened	NA	2	
	Mean	6.2	7.2	
			NEGLIGIBLE	
Target Utilization Changed Schools 2014	# of Schools Strengthened	NA	3	Changes result in schools 90-110% = Strength; Changes result in schools outside of 90-110% = Weakness; otherwise Negligible
	# of Schools Weakened	NA	2	
			STRENGTH	
Target Utilization Changed Schools 2024	# of Schools Strengthened	NA	3	Changes result in schools 90-110% = Strength; Changes result in schools outside of 90-110% = Weakness; otherwise Negligible
	# of Schools Weakened	NA	4	
			WEAKNESS	
Proximity to School	# of Schools Strengthened	NA	5	Mean reduced by 100 or more = Strength; increased by 100 or more = Weakness; otherwise Negligible
	# of Schools Weakened	NA	5	
	Mean	7896	8331	
	(smaller # = closer set of polygons)		WEAKNESS	
Non-Contiguous Attendance Areas	Number of "Islands"	1	0	"After" count lower than "Before" = Strength; "After" higher = Weakness; otherwise Negligible
			STRENGTH	
Transportation Costs	(MS Avg Rating = 0.00)	NA	-0.20	Mean increased = Strength; mean reduced = Weakness; otherwise Negligible
	(pos=savings; neg=cost)		WEAKNESS	
Students Moved	Number	NA	1181	% of enrollment greater than 20% = High Movement, 10% to 20% = Moderate Movement, less than 10% = Low Movement
	% of Enrollment	NA	10.2%	
			MODERATE MOVEMENT	
Students moved too soon after last move	Number	NA	0	% of enrollment greater than 3% = High Movement, greater than 0% to 3% = Moderate Movement, 0% = No Movement
	% of Enrollment	NA	0.0%	
			NO MOVEMENT	
Small ES-to-MS Feeds (under 15%)	# of Small Feeds	21	17	"After" count lower than "Before" = Strength; "After" higher = Weakness; otherwise Negligible
			STRENGTH	
Small MS-to-HS Feeds (under 15%)	# of Small Feeds	6	7	"After" count lower than "Before" = Strength; "After" higher = Weakness; otherwise Negligible
			WEAKNESS	
Double Small Feeds	# of Double Small Feeds	5	2	"After" count lower than "Before" = Strength; "After" higher = Weakness; otherwise Negligible
			STRENGTH	
Low Utilization (Under 90%) 2014-2025	Per-school Average Years	3.3	3.4	Mean reduced by 0.1 or more = Strength; increased by 0.1 or more = Weakness; otherwise Negligible
			WEAKNESS	
High Utilization (Over 110%) 2014-2025	Per-school Average Years	5.6	4.8	Mean reduced by 0.1 or more = Strength; increased by 0.1 or more = Weakness; otherwise Negligible
			STRENGTH	
Strength	Moderate	Weakness		

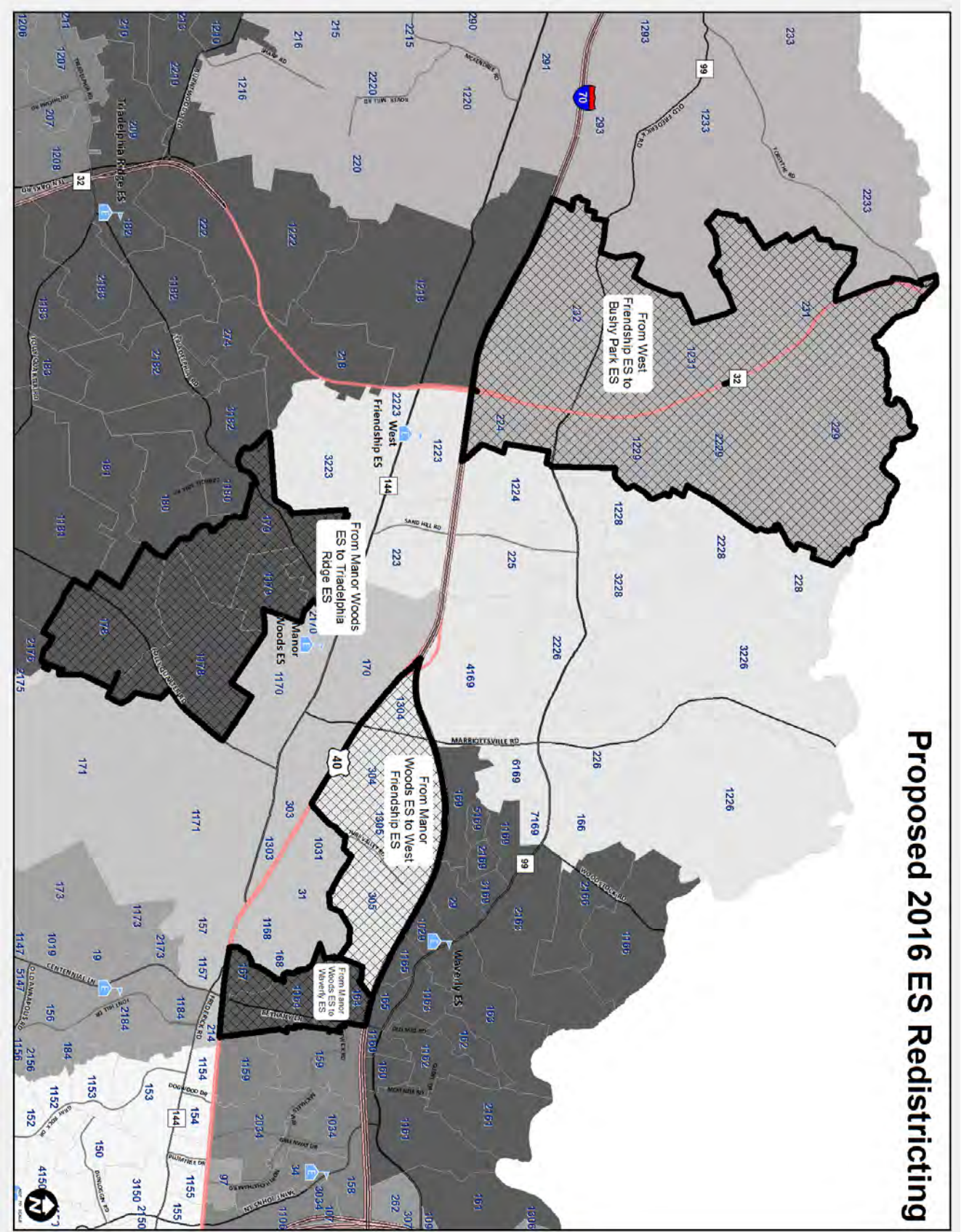
## **VII. Maps**

On the following pages the staff-proposed plans are mapped. It should be noted that none of these maps represent approved plans. Should any redistricting be approved by the Board of Education in November 2013, it would take effect in August 2014 with any applicable phasing. Plans for future years, such as those recommended in this document, would also require Board of Education approval in the fall of the year before they are to take effect. By that time conditions may change and a different plan may be the better option. Long-term plans are presented in an effort to have a transparent planning process and to provide context for the capital budgeting process.









## VIII. Pre- and Post-Measures

On the following pages the effect of the staff proposed plans on capacity utilization are depicted in tabular form. The recommendation in this document is presented for each organizational level (elementary, middle, and high) using a pre-/post-measures format. The pre-measures format shows the effect of projected enrollment without any redistricting. The pre-measures format also shows FY 2014 capital projects as approved. The post-measures format shows the impact of projected enrollment within a redistricting plan. The post-measures format includes capital projects recommended in this document for the FY 2015 Capital Budget (as shown in Figure 2). If these projects are not approved, other plans must be developed. These same reports and other tables are included in the electronic document [A Supplement to the 2013 Feasibility Study](#).

Pre-Measures

Capacity Utilization Rates with Board of Education's Approved FY 2014 Capital Budget Projects - Not Test for APFO

Chart reflects May 2013 Projections. Board of Education's FY 2014 approved capacities, and no redistricting.

School	Capacity			2014-15																						
	2014	2015	2016	2017	Proj % Util.	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25											
<b>Columbia - East</b>	487	487	487	487	42.7	87.7	443	91.0	445	91.4	452	92.8	459	94.0	464	93.2	465	95.5	474	97.3	476	97.7	481	100.8	506	103.9
Candlerock ES	421	421	421	421	44.5	105.7	440	104.5	439	104.3	426	101.2	427	101.4	426	101.2	432	102.6	440	104.5	445	105.7	450	107.4	456	108.8
Jeters Hill ES	640	640	640	640	89.8	89.8	608	95.0	603	94.2	585	91.4	571	89.2	568	88.4	567	88.6	571	89.2	580	90.6	589	92.0	593	92.7
Phelps Luck ES	433	433	433	433	46.1	106.5	476	109.9	489	112.9	486	112.2	465	107.4	467	107.9	479	110.6	476	109.9	479	110.6	485	112.0	490	113.2
Stevens Forest ES	443	443	443	443	95.0	95.0	422	95.3	426	96.2	432	97.5	436	98.4	439	99.1	443	100.0	451	101.8	455	102.7	462	104.3	468	105.6
Talbot Springs ES	468	468	468	468	45.1	96.4	464	99.1	464	99.1	459	98.1	460	98.3	457	97.6	463	98.9	469	100.2	470	100.4	479	102.4	487	104.1
Thunder Hill ES	2892	2892	2892	2892	27.80	96.1	2833	98.7	2866	99.1	2840	98.2	2817	97.4	2809	97.1	2819	98.5	2881	99.6	2905	100.4	2938	102.3	3002	103.8
<b>Columbia - West</b>	355	355	355	355	37.5	105.6	374	105.4	393	110.7	402	113.2	413	116.3	419	118.0	427	120.3	440	123.9	442	124.5	448	126.2	453	127.6
Bryant Woods ES	522	522	522	522	50.4	96.6	511	97.9	509	97.5	502	96.2	495	94.8	484	92.7	496	95.0	488	93.5	494	94.6	493	94.4	487	93.3
Clemens Crossing ES	418	418	418	418	42.2	101.0	424	101.4	419	100.2	412	98.6	431	103.1	443	106.0	442	105.7	448	107.2	456	109.1	461	110.3	464	111.0
Longfellow ES	505	505	505	505	57.2	108.3	512	101.4	554	109.7	585	115.8	636	125.9	693	137.2	749	148.3	796	157.6	841	166.5	874	173.1	898	177.8
Running Brook ES	528	528	528	528	57.2	108.3	578	109.5	573	108.5	577	109.3	578	109.5	573	108.5	572	108.3	578	109.5	591	111.9	599	113.4	605	114.6
Swanfield ES	2328	2328	2328	2328	23.95	101.2	2399	103.0	2448	105.2	2478	106.4	2533	109.7	2612	112.2	2686	115.4	2750	118.1	2824	121.3	2875	123.5	2907	124.9
<b>Northwestern</b>	762	762	762	762	65.9	86.5	679	89.1	724	95.0	770	101.0	828	108.7	885	116.1	930	122.0	961	126.1	965	126.6	970	127.3	966	125.5
Ballous Spring ES	601	601	601	601	68.6	97.5	604	100.5	633	90.3	653	93.2	691	98.6	710	101.3	750	107.0	781	111.4	786	112.1	795	113.4	793	113.1
Deep Run ES	779	779	779	779	82.2	105.5	828	106.3	860	108.1	857	110.0	877	112.6	898	115.0	908	116.6	947	121.6	960	125.8	967	126.7	968	126.8
Elkridge ES	617	617	617	617	67.4	109.2	653	105.8	634	102.8	627	101.6	618	100.2	608	98.5	630	102.1	629	101.9	661	107.1	676	109.6	705	114.3
Ilchester ES	600	600	600	600	65.4	109.0	720	120.0	764	127.3	826	137.7	918	153.0	933	155.5	937	156.2	940	156.7	961	160.2	972	162.0	975	162.5
<b>New ES #41</b>	667	667	667	667	68.7	88.0	582	87.3	543	81.4	524	78.6	528	79.2	534	80.1	531	79.6	546	81.9	598	89.7	631	94.6	651	97.6
Rockum ES	788	788	788	788	83.4	105.8	877	111.3	896	113.7	931	118.1	946	120.1	941	119.4	923	117.1	897	113.8	879	111.5	880	111.7	890	111.7
Vickers ES	594	594	594	594	62.4	105.1	624	105.1	649	108.3	641	107.9	659	110.9	667	112.3	687	115.7	686	115.3	694	116.2	702	118.2	714	120.2
Walton ES	516	516	516	516	56.2	108.9	571	110.7	571	110.7	578	112.0	579	112.2	579	112.2	562	108.9	569	110.3	594	112.8	598	114.0	599	116.1
Worthington ES	5924	5924	6024	6024	59.82	101.0	6138	103.6	6264	104.0	6407	106.4	6644	110.3	6753	101.9	6858	103.5	6955	105.0	7115	107.4	7200	108.7	7261	109.6
<b>Northern</b>	628	628	628	628	72.1	114.8	740	117.8	769	122.5	796	126.8	800	127.4	834	132.8	842	134.1	842	134.1	855	136.1	860	136.9	861	137.1
Centennial Lane ES	688	688	688	688	70.3	102.2	712	103.5	698	101.5	705	102.5	715	103.9	728	105.8	747	108.6	755	109.7	795	115.6	829	120.5	847	123.1
Hollfield Station ES	647	647	647	647	59.9	92.6	606	92.6	616	95.2	679	104.9	783	121.0	875	136.2	910	143.6	912	143.6	1112	171.9	1183	182.8	1242	198.6
Mayon Woods ES	672	672	672	672	72.4	107.7	727	108.2	711	105.8	704	104.8	717	106.7	710	106.7	730	108.6	736	109.4	746	111.0	746	111.0	745	110.5
Northfield ES	597	597	597	597	62.9	104.9	628	105.2	593	99.3	574	96.1	576	96.5	587	98.3	602	100.8	610	102.2	624	104.5	635	106.4	642	107.5
St Johns Lane ES	675	675	675	675	70.8	104.9	704	104.3	690	103.3	657	94.8	625	90.6	625	90.6	638	92.3	638	92.3	652	94.1	652	94.1	657	97.4
Waverly ES	3907	3907	4007	4007	408.4	104.5	4119	105.4	4077	101.7	4115	102.7	4216	105.2	4359	108.8	4567	114.0	4833	117.1	4855	121.2	4922	124.6	5087	127.0
<b>Southeastern</b>	387	387	387	387	37.4	96.6	375	96.9	384	99.2	388	100.8	401	103.6	414	107.0	420	108.5	424	109.6	433	111.9	439	113.4	445	115.0
Alhollon ES	663	663	663	663	69.1	104.2	740	111.6	806	121.6	821	121.6	891	134.4	953	143.7	999	150.8	1050	158.4	1036	156.1	1019	153.7	999	150.7
Bolman Bridge ES	626	626	626	626	76.1	121.6	805	128.6	821	131.2	866	138.3	865	138.2	888	141.9	910	145.4	925	147.8	925	147.8	927	148.1	933	149.0
Forest Ridge ES	713	713	713	713	64.8	90.9	654	91.7	699	98.0	734	102.9	733	102.8	725	101.7	713	100.0	722	101.3	727	102.0	722	101.3	696	98.0
German Crossing ES	462	462	462	462	47.8	103.5	480	103.9	489	105.8	494	106.9	492	106.5	479	103.7	492	106.5	493	106.7	496	107.4	500	108.2	506	109.5
Gulford ES	597	597	597	597	60.7	101.7	591	99.0	582	97.5	582	97.5	595	99.7	611	102.3	629	105.4	671	112.4	693	116.1	723	121.1	751	125.8
Hammond ES	540	540	540	540	56.6	108.5	592	92.5	577	90.2	592	92.5	594	92.8	590	92.2	588	91.9	603	94.2	616	96.3	636	99.4	645	100.8
Laurel Woods ES	396	396	396	396	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>New ES #42</b>	NS	0	0	0	NS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Region Totals</b>	3988	4088	4088	4088	414.5	103.9	4237	103.6	4358	106.6	4560	111.5	4633	113.3	4706	115.1	4796	117.3	4888	119.6	4925	120.5	4940	120.8	4978	121.8
<b>Western</b>	788	788	788	788	52.3	66.4	503	63.8	490	62.2	486	61.7	470	59.6	488	59.4	479	60.8	472	59.9	492	62.4	487	61.8	496	62.9
Bushy Park ES	634	634	634	634	62.6	62.6	389	61.4	365	56.0	323	50.9	290	45.7	283	45.2	303	47.8	300	45.7	312	49.2	306	46.7	304	47.9
Clarksdale ES	788	788	788	788	55.6	70.6	505	68.5	505	68.5	490	62.2	459	58.2	430	54.6	437	55.5	445	56.5	446	56.6	447	56.7	453	57.5
Dayton Oaks ES	772	772	772	772	69.5	90.0	752	97.4	814	105.4	889	112.6	913	118.3	920	119.2	903	117.0	888	115.0	865	112.0	814	105.4	796	103.4
Fulton ES	553	553	553	553	37.0	66.9	353	63.8	353	63.8	357	64.6	352	63.7	355	64.2	354	64.0	355	64.2	358	64.9	357	64.8	363	66.3
Liston ES	776	776	776	776	63.9	82.3	570	73.5	555	71.5	520	67.0	496	63.9	499	64.3	500	64.4	519	66.9	518	66.8	523	67.4	530	68.3
Pointers Run ES	544	544	544	544	45.1	82.9	446	82.4	446	82.4	446	82.4	463	95.1	467	87.8	460	84.6	466	86.8	448	82.4	422	77.6	423	77.8
Triadelphia Ridge ES	396	396	396	396	26.7	67.4	258	64.6	241	60.9	236	59.6	224	56.6	226	57.1	221	55.8	224	56.6	233	58.8	233	58.8	236	59.6
West Friendship ES	5251	5251	5251	5251	394.0	75.0	3812	72.6	3769	71.8	3751	71.4	3667	69.8	3658	69.7	3657	69.6	3659	69.7	3687	70.2	3687	70.2	3687	70.2
<b>Region Totals</b>	24290	24390	24290	24290	2336.6	99.9	23658	96.6	23782	96.7	24151	98.2	24530	99.8	24887	98.8	25413	100.9	25626	102.3	26311	104.3	26678	105.5	26859	106

MIDDLE SCHOOLS - Data for Demonstrative Purposes Only

Capacity Utilization Rates with Board of Education's Approved FY 2014 Capital Budget Projects - Not Test for APFO

Chart reflects May 2013 Projections, Board of Education's FY 2014 approved capacities, and no restricting	Capacity Utilization Rates with Board of Education's Approved FY 2014 Capital Budget Projects - Not Test for APFO																													
	2014	2015	2016	2017	Proj % Util.	2015-16	Proj % Util.	2016-17	Proj % Util.	2017-18	Proj % Util.	2018-19	Proj % Util.	2019-20	Proj % Util.	2020-21	Proj % Util.	2021-22	Proj % Util.	2022-23	Proj % Util.	2023-24	Proj % Util.	2024-25	Proj % Util.					
Columbia - East	662	662	662	662	106.7	662	662	662	662	106.7	662	662	662	662	106.7	662	662	662	662	106.7	662	662	662	662	106.7					
	594	594	594	594	463	79.3	460	459	78.6	475	81.3	485	63.0	500	65.6	500	65.6	500	65.6	500	65.6	500	65.6	501	65.8					
	506	506	506	506	481	95.1	503	96.4	502	96.0	508	100.4	554	109.5	570	112.6	566	107.5	544	107.5	547	108.1	554	109.5	560	110.7				
	1090	1090	1090	1090	944	86.6	963	88.3	961	88.2	983	90.2	1039	95.3	1070	98.2	1066	97.8	1049	96.2	1048	96.1	1063	97.5	1076	98.7				
	<b>Region MS Totals</b>																													
Columbia - West	506	506	506	506	550	108.7	566	111.9	597	118.0	606	119.8	611	120.8	606	119.8	611	120.8	606	119.8	605	119.6	620	122.5	608	120.2				
	A	506	506	662	662	600	600	600	600	118.6	C	636	125.7	C	645	97.4	691	104.4	707	106.8	736	111.2	720	108.8	740	111.8				
	1012	1012	1168	1168	1150	113.6	1202	118.8	C	1242	106.3	1297	111.0	1318	112.8	1342	114.9	1325	113.4	1360	116.4	C	1372	117.5	C	1421	121.7			
	<b>Region MS Totals</b>																													
	<b>Region MS Totals</b>																													
Northwestern	662	662	662	662	761	115.0	791	119.5	C	800	120.8	C	847	127.9	C	866	130.8	C	865	130.7	C	832	125.7	C	822	124.2	C	779	117.7	
	662	662	662	662	794	119.9	C	821	124.0	C	820	123.9	C	864	129.0	C	840	126.9	C	848	128.1	C	890	128.4	C	892	134.7	C	904	136.6
	662	662	662	662	753	113.7	812	122.7	C	842	127.2	C	873	131.9	C	876	132.3	C	899	135.8	C	933	140.9	C	970	146.5	C	967	146.1	
	662	662	662	662	766	112.3	827	121.3	C	877	128.6	C	945	138.6	C	964	141.3	C	998	146.3	C	1000	146.6	C	1041	152.6	C	1071	157.0	
	<b>Region MS Totals</b>																													
Northern	3390	3390	3390	3390	3074	92.3	3251	97.6		3399	100.3	3519	105.7	3546	106.5	3630	109.0	3615	108.6	3725	111.9	3721	111.7	3797	114.0	3898	115.3			
	<b>Region MS Totals</b>																													
	<b>Region MS Totals</b>																													
	<b>Region MS Totals</b>																													
	<b>Region MS Totals</b>																													
Southeastern	662	662	662	662	751	113.4	762	115.1	C	777	117.4	C	788	118.0	C	770	116.3	C	780	117.8	C	782	118.1	C	818	123.6	C	855	129.2	
	626	526	526	526	622	118.3	C	646	122.8	C	676	128.5	C	674	128.1	C	667	126.8	C	666	126.4	C	664	126.2	C	692	131.6	C	683	129.6
	662	662	662	662	659	99.5	721	108.9	C	747	112.8	760	114.8	761	115.0	719	108.6	688	105.9	682	103.0	678	102.4	698	105.4	698	105.4	716	108.2	
	1850	1850	1850	1850	2032	109.8	2129	115.1	C	2200	118.9	C	2202	119.0	C	2198	118.8	C	2164	117.0	C	2134	115.4	C	2192	118.5	C	2216	119.8	
	<b>Region MS Totals</b>																													
Western	662	662	662	662	549	94.0	565	96.7		588	100.7	567	97.1	593	99.8	600	102.7	631	106.0	641	109.8	667	114.2	687	117.6	C	710	121.6		
	662	662	662	662	669	131.3	C	917	138.5	C	994	150.2	C	1027	155.1	C	1074	162.2	C	1105	166.9	C	1158	174.9	C	1141	172.4	C	1129	170.5
	662	662	662	662	675	102.0	700	105.7	741	111.9	739	111.6	772	116.6	788	119.0	805	121.6	826	124.8	882	133.2	C	968	146.2	C	1014	153.0		
	1908	1908	1908	1908	2093	109.7	2182	114.4	2233	121.8	2333	122.3	C	2429	127.3	C	2493	130.7	C	2594	136.0	C	2608	136.7	C	2678	140.4	C	2811	147.3
	<b>Region MS Totals</b>																													
Countwide Totals	12461	12461	12617	12617	12300	98.7	12715	102.0	12994	103.0	13227	104.8	13393	106.2	13515	107.1	13387	106.1	13449	106.6	13509	107.1	13991	110.9	14298	113.3				
	<b>Region MS Totals</b>																													
	<b>Region MS Totals</b>																													
	<b>Region MS Totals</b>																													
	<b>Region MS Totals</b>																													

Pre-Measures

**HIGH SCHOOLS - Data for Demonstrative Purposes Only**  
 Capacity Utilization Rates with Board of Education's Approved FY 2014 Capital Budget Projects - Not Test for APFO

Chart reflects May 2013 Projections, Board of Education's FY 2014 approved capacities, and no redistricting.

	Capacity	2013	2014	2015	2016	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25											
						Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.											
<b>Columbia - East</b>	1400	1400	1400	1400	1107	79.1	80.3	1169	83.5	1224	87.4	1211	86.5	1263	90.2	1272	90.9	1320	94.3	1378	98.4	1373	98.1	1379	98.5		
Oakland Mills HS																											
<b>Columbia - West</b>																											
Wide Lake HS	1424	1424	1424	1424	1317	92.5	95.2	1429	100.4	1524	107.0	1579	110.9	1649	115.8	1710	120.1	1707	119.9	1744	122.5	1750	122.9	1748	122.8		
<b>Northeastern</b>																											
Howard HS	1420	1420	1420	1420	1749	123.2	127.2	1806	127.2	1850	130.3	1925	135.6	2006	141.3	2059	145.0	2127	149.8	2168	152.7	2194	154.5	2216	156.1	2207	155.4
Long Reach HS	1488	1488	1488	1488	1437	96.6	97.2	1447	97.2	1528	102.6	1600	107.5	1664	111.8	1746	117.3	1819	122.2	1849	124.3	1893	127.2	1907	128.2	1917	128.8
<b>Region HS Totals</b>	2908	2908	2908	2908	3186	109.6	111.9	3253	111.9	3376	116.1	3525	121.2	3670	126.2	3805	130.8	3946	135.7	4017	138.1	4087	140.5	4123	141.8	4124	141.8
<b>Northern</b>																											
Centennial HS	1360	1360	1360	1360	1349	99.2	102.2	1390	102.2	1429	105.1	1504	110.6	1565	115.1	1591	117.0	1622	119.3	1638	120.4	1650	121.3	1663	122.3	1730	127.2
Marriotts Ridge HS	1615	1615	1615	1615	1192	73.8	77.3	1249	77.3	1264	78.3	1305	80.8	1322	81.9	1299	80.4	1325	82.0	1337	82.8	1333	82.5	1298	80.4	1289	79.8
Mt. Hebron HS	1400	1400	1400	1400	1484	106.0	103.8	1453	103.8	1536	109.7	1599	114.2	1654	118.1	1779	127.1	1805	128.9	1815	129.6	1816	129.7	1777	126.9	1789	127.8
<b>Region HS Totals</b>	4375	4375	4375	4375	4025	92.0	93.5	4092	93.5	4229	96.7	4408	100.8	4541	103.8	4689	106.7	4752	108.6	4790	109.5	4799	109.7	4738	108.3	4808	109.9
<b>Southeastern</b>																											
Hammond HS	1220	1220	1220	1220	1243	101.9	99.8	1217	99.8	1194	97.9	1206	98.9	1217	99.8	1276	104.6	1314	107.7	1363	111.7	1436	117.7	1454	119.2	1522	124.8
<b>Western</b>																											
Alton HS	1360	1360	1360	1360	1419	104.3	106.0	1442	106.0	1444	106.2	1485	109.2	1529	112.4	1525	112.1	1554	114.3	1561	114.8	1547	113.8	1549	113.9	1531	112.6
Glendon HS	1420	1420	1420	1420	1237	87.1	86.5	1169	82.3	1169	82.3	1143	80.5	1172	82.5	1148	80.8	1127	79.4	1131	79.6	1077	75.8	1049	73.9	1041	73.3
Reservoir HS	1551	1551	1551	1551	1493	96.3	101.3	1571	101.3	1612	103.9	1719	110.8	1837	118.4	1882	121.3	1924	124.0	1981	127.7	2033	131.1	2076	133.8	2115	136.4
River Hill HS	1488	1488	1488	1488	1349	90.7	89.0	1325	89.0	1303	87.6	1310	88.0	1296	87.1	1241	83.4	1226	82.4	1206	81.0	1137	76.4	1098	73.8	1044	70.2
<b>Region HS Totals</b>	5819	5819	5819	5819	5498	94.5	95.7	5567	95.7	5528	95.0	5657	97.2	5834	100.3	5796	99.6	5831	100.2	5879	101.0	5794	99.6	5772	99.2	5731	98.5
<b>Countywide Totals</b>	17146	17146	17146	17146	16376	95.5	96.9	16609	96.9	16925	98.7	17544	102.3	18052	105.3	18458	107.7	18825	109.8	19076	111.3	19238	112.2	19210	112.0	19312	112.6

**ELEMENTARY SCHOOLS - Data for Demonstrative Purposes Only**

Post-Measures  
Aggregate Plan

Capacity Utilization Rates with Proposed FY 2015 Capital Budget Projects - Not Test for APFO

Chart reflects May 2013 Projections. Board of Education's FY 2015 Requested capacities, and redistricting as listed in June 2013 Feasibility Study.

	2014	2015	2016	2017	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
	Capacity	Capacity	Capacity	Capacity	Pro % Util.	Pro % Util.	Pro % Util.	Pro % Util.	Pro % Util.	Pro % Util.	Pro % Util.	Pro % Util.	Pro % Util.	Pro % Util.	Pro % Util.
<b>Columbia - East</b>	487	487	487	487	427	443	445	445	445	445	445	445	445	445	445
Cradlecock ES	487	487	487	487	427	443	445	445	445	445	445	445	445	445	445
Jeffers Hill ES	421	421	421	421	402	404	404	404	404	404	404	404	404	404	404
Phelps Luck ES	640	640	640	640	575	588	588	588	588	588	588	588	588	588	588
Siemens Forest ES	433	433	433	433	401	406.5	406.5	406.5	406.5	406.5	406.5	406.5	406.5	406.5	406.5
Talbot Springs ES	443	443	443	443	421	421	421	421	421	421	421	421	421	421	421
Thunder Hill ES	468	468	468	468	451	451	451	451	451	451	451	451	451	451	451
<b>Region Totals</b>	<b>2892</b>	<b>2892</b>	<b>2892</b>	<b>2892</b>	<b>2780</b>	<b>2853</b>	<b>2866</b>	<b>2866</b>	<b>2866</b>	<b>2866</b>	<b>2866</b>	<b>2866</b>	<b>2866</b>	<b>2866</b>	<b>2866</b>
<b>Columbia - West</b>	355	355	355	355	375	374	393	393	393	393	393	393	393	393	393
Bryant Woods ES	522	522	522	522	504	511	509	509	509	509	509	509	509	509	509
Clemens Crossing ES	418	418	418	418	422	422	419	419	419	419	419	419	419	419	419
Longfellow ES	505	505	505	505	482	482	482	482	482	482	482	482	482	482	482
Running Brook ES	528	528	528	528	512	512	512	512	512	512	512	512	512	512	512
Swanfield ES	2328	2328	2428	2428	2355	2399	2448	2448	2448	2448	2448	2448	2448	2448	2448
<b>Region Totals</b>	<b>2328</b>	<b>2328</b>	<b>2428</b>	<b>2428</b>	<b>2355</b>	<b>2399</b>	<b>2448</b>	<b>2448</b>	<b>2448</b>	<b>2448</b>	<b>2448</b>	<b>2448</b>	<b>2448</b>	<b>2448</b>	<b>2448</b>
<b>Northeastern</b>	762	762	762	762	659	679	724	724	724	724	724	724	724	724	724
Bellevue Spring ES	601	601	701	701	586	604	604	604	604	604	604	604	604	604	604
Deep Run ES	779	779	779	779	822	822	822	822	822	822	822	822	822	822	822
Elkridge ES	617	617	617	617	624	624	624	624	624	624	624	624	624	624	624
Lichester ES	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800
<b>New ES #441</b>	667	667	667	667	887	887	887	887	887	887	887	887	887	887	887
Rockburn ES	788	788	788	788	834	834	834	834	834	834	834	834	834	834	834
Veterans ES	594	594	594	594	594	594	594	594	594	594	594	594	594	594	594
Walden ES	516	516	516	516	562	562	562	562	562	562	562	562	562	562	562
Worthington ES	5924	5924	6024	6024	5922	6138	6264	6264	6264	6264	6264	6264	6264	6264	6264
<b>Region Totals</b>	<b>5924</b>	<b>5924</b>	<b>6024</b>	<b>6024</b>	<b>5922</b>	<b>6138</b>	<b>6264</b>	<b>6264</b>	<b>6264</b>	<b>6264</b>	<b>6264</b>	<b>6264</b>	<b>6264</b>	<b>6264</b>	<b>6264</b>
<b>Northern</b>	628	628	628	628	721	740	740	740	740	740	740	740	740	740	740
Centennial Lane ES	688	688	688	688	703	703	703	703	703	703	703	703	703	703	703
Hollifield Station ES	647	647	647	647	599	608	608	608	608	608	608	608	608	608	608
Manor Woods ES	672	672	672	672	724	727	727	727	727	727	727	727	727	727	727
Northfield ES	597	597	597	597	629	628	628	628	628	628	628	628	628	628	628
St Johns Lane ES	675	675	675	675	708	704	704	704	704	704	704	704	704	704	704
Valeriy ES	3907	3907	3907	4007	4084	4119	4077	4077	4077	4077	4077	4077	4077	4077	4077
<b>Region Totals</b>	<b>3907</b>	<b>3907</b>	<b>3907</b>	<b>4007</b>	<b>4084</b>	<b>4119</b>	<b>4077</b>	<b>4077</b>	<b>4077</b>	<b>4077</b>	<b>4077</b>	<b>4077</b>	<b>4077</b>	<b>4077</b>	<b>4077</b>
<b>Southeastern</b>	387	387	387	387	374	375	384	384	384	384	384	384	384	384	384
Atholton ES	683	683	683	683	691	740	806	806	806	806	806	806	806	806	806
Bolham Bridge ES	626	626	626	626	761	805	821	821	821	821	821	821	821	821	821
Forest Ridge ES	713	713	713	713	648	90.9	91.7	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
Gorman Crossing ES	462	462	462	462	478	480	489	489	489	489	489	489	489	489	489
Gaulford ES	597	597	597	597	607	607	591	591	591	591	591	591	591	591	591
Hammond ES	540	540	540	540	586	586	577	577	577	577	577	577	577	577	577
Laurel Woods ES	NS	0	0	0	NS	0	0	0	0	0	0	0	0	0	0
<b>New ES #442</b>	3988	4088	4088	4088	4145	4237	4358	4358	4358	4358	4358	4358	4358	4358	4358
<b>Region Totals</b>	<b>3988</b>	<b>4088</b>	<b>4088</b>	<b>4088</b>	<b>4145</b>	<b>4237</b>	<b>4358</b>	<b>4358</b>	<b>4358</b>	<b>4358</b>	<b>4358</b>	<b>4358</b>	<b>4358</b>	<b>4358</b>	<b>4358</b>
<b>Western</b>	788	788	788	788	523	503	490	486	486	486	486	486	486	486	486
Bustny Park ES	634	634	634	634	425	389	355	355	355	355	355	355	355	355	355
Clarksville ES	788	788	788	788	524	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5
Dayton Oaks ES	772	772	772	772	695	752	814	814	814	814	814	814	814	814	814
Fulton ES	553	553	553	553	384	390.4	370	369.4	369.4	369.4	369.4	369.4	369.4	369.4	369.4
Lisbon ES	776	776	776	776	639	623.3	570	570	570	570	570	570	570	570	570
Pointers Run ES	544	544	544	544	451	448	448	448	448	448	448	448	448	448	448
Triadelphia Ridge ES	396	396	396	396	367	366	241	241	241	241	241	241	241	241	241
West Friendship ES	6251	6251	6251	6251	3940	3812	3769	3769	3769	3769	3769	3769	3769	3769	3769
<b>Region Totals</b>	<b>6251</b>	<b>6251</b>	<b>6251</b>	<b>6251</b>	<b>3940</b>	<b>3812</b>	<b>3769</b>	<b>3769</b>	<b>3769</b>	<b>3769</b>	<b>3769</b>	<b>3769</b>	<b>3769</b>	<b>3769</b>	<b>3769</b>
<b>Countywide Totals</b>	<b>24290</b>	<b>24390</b>	<b>24590</b>	<b>24690</b>	<b>23286</b>	<b>23558</b>	<b>23782</b>	<b>23782</b>	<b>23782</b>	<b>23782</b>	<b>23782</b>	<b>23782</b>	<b>23782</b>	<b>23782</b>	<b>23782</b>
<b>A:</b> Includes additions as reflected in FY 2015 CIP for grades K-5															
<b>NS:</b> New School proposed in FY 2015 Capital Budget															

**MIDDLE SCHOOLS - Data for Demonstrative Purposes Only**

Capacity Utilization Rates with Proposed FY 2015 Capital Budget Projects - Not Test for APFO

Chart reflects May 2013 Projections, Board of Education's FY 2015 Requested capacities, and restructuring as listed in June 2013 Feasibility Study.

Aggregate Plan	Capacity			2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25			
	2014	2015	2016	2017	Proj % Util.	2015	Proj % Util.	2016	Proj % Util.	2017	Proj % Util.	2018	Proj % Util.	2019	Proj % Util.	2020	Proj % Util.	2021	Proj % Util.	2022	Proj % Util.	2023	Proj % Util.	2024	Proj % Util.		
<b>Post-Measures</b>																											
<b>Aggregate Plan</b>																											
Columbia - East	506	506	506	506	108.7	566	111.9	597	118.0	606	119.8	611	120.8	606	119.8	605	119.6	620	122.5	608	120.2	603	119.2	610	120.6	610	120.6
Lake Elkhorn MS	543	543	543	463	72.0	467	71.5	459	71.4	475	73.9	486	75.4	500	77.8	500	77.8	505	78.5	501	77.9	509	79.2	516	80.2	522	83.4
Oakland Mills MS	506	506	506	481	95.1	503	99.4	502	99.2	508	100.4	554	109.5	570	112.6	566	111.9	544	107.5	547	108.1	554	109.5	560	110.7	560	110.7
<b>Region MS Totals</b>	1149	1149	1149	944	82.2	963	83.6	961	83.6	983	89.6	1039	90.4	1070	93.1	1086	92.8	1049	91.3	1048	91.2	1053	92.5	1076	93.6	1076	93.6
<b>Columbia - West</b>																											
Harpers Choice MS	506	506	506	506	108.7	566	111.9	597	118.0	606	119.8	611	120.8	606	119.8	605	119.6	620	122.5	608	120.2	603	119.2	610	120.6	610	120.6
Wildie Lake MS	467	467	623	623	136.5	636	136.2	645	138.5	691	147.9	707	151.5	736	157.5	720	154.6	740	158.8	764	163.3	818	178.1	857	187.6	857	187.6
<b>Region MS Totals</b>	973	973	1129	1129	118.2	1202	123.5	1242	126.0	1297	132.7	1318	136.7	1342	138.9	1325	137.4	1360	140.5	1372	141.5	1421	145.9	1477	150.8	1477	150.8
<b>Northwestern</b>																											
Bonne Branch MS	662	662	662	590	89.1	616	93.1	623	94.1	659	99.5	672	101.5	686	103.6	641	96.8	631	95.3	594	89.7	623	94.1	620	93.7	620	93.7
Elkridge Landing MS	779	779	779	704	90.4	721	92.6	716	91.9	747	95.9	733	94.1	739	94.9	737	94.6	757	98.5	777	99.7	783	100.5	782	100.4	782	100.4
Ellicott Mills MS	662	662	662	662	113.7	812	122.7	842	127.2	873	131.9	876	132.3	889	135.8	933	140.9	970	146.5	967	146.1	969	144.9	953	144.0	953	144.0
Mayfield Woods MS	798	798	798	798	100.0	756	96.0	804	100.8	861	107.9	881	110.4	912	114.3	909	113.9	942	118.0	960	120.3	999	125.2	1037	129.9	1037	129.9
<b>New MS #20</b>	NS	662	662	662	75.7	537	81.1	554	85.2	585	88.4	596	90.0	607	91.7	611	92.3	632	95.5	653	98.6	684	103.3	709	107.1	709	107.1
<b>Region MS Totals</b>	3563	3563	3563	3269	91.7	3452	96.9	3549	99.6	3725	104.5	3758	105.5	3843	107.9	3831	107.5	3942	110.6	3951	110.9	4048	113.6	4101	115.1	4101	115.1
<b>Northern</b>																											
Burleigh Manor MS	779	779	779	751	96.4	762	97.8	777	99.7	768	98.6	770	98.8	780	100.1	782	100.4	818	105.0	856	109.8	904	116.0	922	118.4	922	118.4
Dunthorpe MS	565	565	565	565	110.1	646	114.3	676	119.6	674	119.3	667	118.1	665	117.7	664	117.5	682	122.5	683	120.9	682	122.5	689	121.9	689	121.9
Palapasco MS	643	643	643	659	102.5	721	112.1	747	116.2	760	118.2	761	118.4	719	111.8	688	107.0	662	106.1	678	105.4	686	108.6	716	111.4	716	111.4
<b>Region MS Totals</b>	1987	1987	1987	1987	102.3	2129	107.1	2200	110.7	2202	110.8	2198	110.6	2164	108.9	2134	107.4	2192	110.3	2216	111.5	2294	115.5	2327	117.1	2327	117.1
<b>Southeastern</b>																											
Hammond MS	604	604	604	471	78.0	466	80.5	505	83.6	483	80.0	497	82.3	508	84.1	530	87.7	539	89.2	565	93.5	592	98.0	615	101.8	615	101.8
Murray Hill MS	662	662	662	622	94.0	656	99.1	706	106.8	731	110.4	760	114.8	776	117.2	807	121.9	789	119.2	775	117.1	789	119.2	805	121.6	805	121.6
Patuxent Valley MS	760	760	760	635	83.6	655	87.5	719	94.6	732	96.3	702	92.2	800	105.3	833	109.6	851	112.0	888	116.8	955	125.7	997	131.2	997	131.2
<b>Region MS Totals</b>	2026	2026	2026	1728	85.3	1807	89.2	1946	95.3	1946	96.1	2029	100.1	2084	102.9	2170	107.1	2179	107.6	2228	110.0	2336	115.3	2417	119.3	2417	119.3
<b>Western</b>																											
Clarksville MS	643	643	643	593	92.2	562	87.4	536	83.4	511	79.5	499	76.0	449	69.8	381	59.3	325	50.5	320	49.8	339	52.7	350	54.4	350	54.4
Folly Quarter MS	662	662	662	542	81.9	582	87.9	577	87.2	605	91.4	596	90.0	592	89.4	557	84.1	531	80.2	523	79.0	554	83.7	562	83.4	562	83.4
Glenwood MS	545	545	545	534	98.0	536	98.3	517	94.9	494	90.6	466	85.5	462	84.8	449	82.4	443	81.3	418	76.7	432	79.3	427	78.3	427	78.3
Lime Kiln MS	701	701	701	781	111.4	799	114.0	794	113.3	777	110.8	774	110.4	794	113.3	789	112.6	769	109.7	768	109.6	792	113.0	817	116.5	817	116.5
Mount View MS	798	798	798	727	91.1	683	85.6	688	86.2	687	86.1	726	91.0	715	89.6	665	86.8	659	82.6	665	83.3	712	89.2	754	94.5	754	94.5
<b>Region MS Totals</b>	3349	3349	3349	3177	94.9	3162	94.4	3112	92.9	3074	91.8	3051	91.1	3012	89.9	2861	85.4	2727	81.4	2694	80.4	2829	84.5	2900	86.6	2900	86.6
<b>Countywide Totals</b>	13047	13047	13203	13203	94.3	12715	97.5	12994	98.4	13227	100.2	13383	101.4	13515	102.4	13887	101.4	13449	101.9	13509	102.3	13891	106.0	14288	108.3	14288	108.3

A) Includes additions as reflected in FY 2015 CIP for grades 6-8

N/S: New School proposed in FY 2015 Capital Budget

Post-Measures		HIGH SCHOOLS - Data for Demonstrative Purposes Only																										
Aggregate Plan		Capacity Utilization Rates with Proposed FY 2015 Capital Budget Projects - Not Test for APFO																										
Chart reflects May 2013 Projections, Board of Education's FY 2015 Requested capacities, and redistricting as listed in June 2013 Feasibility Study.																												
		Capacity					2014-15		2015-16		2016-17		2017-18		2018-19		2019-20		2020-21		2021-22		2022-23		2023-24		2024-25	
		2014	2015	2016	2017	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.	Proj % Util.
Columbia - East	1400	1400	1400	1400	1400	1107	79.1	1124	80.3	1169	83.5	1224	87.4	1211	86.5	1263	90.2	1272	90.9	1320	94.3	1378	98.4	1373	98.1	1379	98.5	
Oakland Mills HS																												
Columbia - West	1424	1424	1424	1424	1424	1317	92.5	1366	95.2	1429	100.4	1524	107.0	1579	110.9	1649	115.8	1710	120.1	1707	119.9	1744	122.5	1750	122.9	1748	122.8	
White Lake HS																												
Northwestern	1420	1420	1420	1420	1420	1749	123.2	1806	127.2	1860	130.3	1925	135.6	2006	141.3	2059	145.0	2127	149.8	2168	152.7	2194	154.5	2216	156.1	2207	155.4	
Howard HS	1488	1488	1488	1488	1437	96.6	1447	97.2	1526	102.6	1600	107.5	1664	111.8	1746	117.3	1819	122.2	1869	124.3	1893	127.2	1907	128.2	1917	128.8		
Long Reach HS	2908	2908	2908	2908	3186	109.6	3263	111.9	3376	116.1	3526	121.2	3670	126.2	3805	130.8	3946	135.7	4017	138.1	4087	140.6	4123	141.8	4124	141.8		
Region HS Totals																												
Northern	1360	1360	1360	1360	1349	99.2	1390	102.2	1429	105.1	1504	110.6	1565	115.1	1591	117.0	1622	119.3	1638	120.4	1660	121.3	1663	122.3	1663	122.3		
Centennial HS	1615	1615	1615	1615	1192	73.8	1249	77.3	1264	78.3	1305	80.6	1332	81.9	1299	80.4	1325	82.0	1337	82.8	1333	82.5	1333	82.5	1298	80.4		
Merritts Ridge HS	1400	1400	1400	1400	1484	106.0	1453	103.8	1536	109.7	1599	114.2	1654	118.1	1779	127.1	1805	128.9	1815	129.6	1816	129.7	1777	128.9	1789	127.8		
Mt Hebron HS	4375	4375	4375	4375	4025	92.0	4092	93.5	4229	96.7	4408	100.8	4541	103.8	4669	106.7	4752	108.6	4790	109.5	4799	109.7	4738	108.3	4808	109.9		
Region HS Totals																												
Southeastern	1220	1220	1220	1220	1243	101.9	1217	99.8	1194	97.9	1206	98.9	1217	99.8	1276	104.6	1314	107.7	1363	111.7	1436	117.7	1454	119.2	1522	124.8		
Harmond HS																												
Western	1360	1360	1360	1360	1419	104.3	1442	106.0	1444	106.2	1486	109.2	1529	112.4	1525	112.1	1554	114.3	1561	114.8	1547	113.8	1549	113.9	1531	112.6		
Alphton HS	1420	1420	1420	1420	1237	87.1	1229	86.5	1189	82.3	1143	80.5	1172	82.5	1148	80.8	1127	79.4	1131	79.6	1077	75.8	1049	73.9	1041	73.3		
Glennville HS	1561	1561	1561	1561	1493	96.3	1571	101.3	1612	103.9	1719	110.8	1837	118.4	1892	121.3	1924	124.0	1981	127.7	2033	131.1	2076	133.8	2115	136.4		
Reservoir HS	1488	1488	1488	1488	1349	90.7	1325	89.0	1303	87.6	1310	88.0	1286	87.1	1241	83.4	1226	82.4	1206	81.0	1137	76.4	1098	73.8	1044	70.2		
River Hill HS	5819	5819	5819	5819	5498	94.5	5567	95.7	5528	95.0	5667	97.2	5834	100.3	5796	99.6	5831	100.2	5879	101.0	5794	99.6	5772	99.2	5731	98.5		
Region HS Totals	17146	17146	17146	17146	16376	95.5	16609	96.9	16925	98.7	17544	102.3	18062	105.3	18458	107.7	18825	109.8	19076	111.3	19238	112.2	19210	112.0	19312	112.6		



