

Middle School Rezoning Study

Presentation of Rezoning Recommendations

January 15, 2019

CropperGIS

Who We Are

Cropper GIS Consulting, LLC

K-12 school planning is our business and our passion. Our specialty is school realignment.

Cropper works with K-12 school districts to:

- develop redistricting plans,
- facilitate community engagement,
- research, map and write demographic studies,
- prepare long-range facility master plans,
- author site feasibility studies,
- conduct & publish housing impact and yield factor studies, and
- provide GIS implementation & training.

Who We Are

Cropper GIS is an ESRI Authorized Business Partner



Recent Projects:

- Richmond Public Schools, VA
- Henrico County Public Schools, VA
- Alexandria City Public Schools, VA
- Union County Public Schools, NC
- Brunswick County Public Schools, NC
- Frederick County Public Schools, MD
- Baltimore County Public Schools, MD
- Meridian Public School District, MS
- Kershaw County School District, SC
- Calhoun County Public Schools, SC
- Akron Public Schools, OH



Matthew Cropper

- 20 years experience providing GIS mapping and analysis services to school districts and other clients.
- Manages and Facilitates K-12 redistricting and facility planning projects across the U.S.
- Expert consultant for U.S. Department of Justice, Civil Right's Division
- Published numerous papers about using GIS in master planning and educational planning.

Why We're Here

1. Frederick County Public Schools (FCPS) have an imbalance in middle school utilization:
 - a) James Wood Middle School is overcrowded.
 - b) Frederick County Middle School has available capacity.
 - c) Admiral Byrd Middle School is also overcrowded, but it is expected to get relief when R. E. Aylor Middle School is rebuilt, and subsequent rezoning occurs.
 - d) The expectation is that this rezoning will only impact middle schools, with no impact on elementary or high school boundary lines.
2. These factors necessitate a comprehensive look at attendance boundaries.

Project Objectives

1. To explore and develop middle school rezoning options through a community-based process.
2. Focus on developing options that best meet the FCPS rezoning criteria.

Why We're Here

Middle School Rezoning Study

Cropper GIS Consulting were hired by the district to facilitate and manage the project. Our firms are tasked to:

- A. Develop supporting materials to help facilitate the study.
- B. Facilitate a community-based process of developing a middle school rezoning plan.
- C. Empower the community throughout the process.
- D. Leverage expertise to develop logical, efficient, and effective student realignment options with the committee.

Why We're Here

Rezoning Criteria

Rules to Follow

The Frederick County Public Schools has a set of criteria to follow when evaluating middle school rezoning options. These are rules to follow when considering any potential attendance zone adjustment.

The rezoning committee will be oriented on these criteria and will follow them as best as possible as they consider rezoning options.

- **Balance building utilization.**
 - Schools should be at similar percentages of capacity when the next middle school is planned to be opened. Allow for increasing attendance in high growth areas. Keep future capital projects in mind.
 - Building utilization does not include the use of portable or semi-permanent spaces in the total building capacity.
 - Avoid additional rezonings before the next middle school opens.
 - Economic, cultural, and ethnic diversity should be considered to ensure schools are inclusionary and not adversely affected by realignment decisions.
 - Special needs populations should be evenly distributed across all schools in a manner consistent with sound educational practices.

- **Minimize impact on students.**

- Minimize the number of students impacted by a boundary adjustment.
- Students should be assigned to the school closest to their homes when possible.
- Establish a clean feeder pattern system; reduce the number of schools at the next level any single school feeds. When splits are necessary, the attendance zone should be divided in a balanced manner, so that students continue to the next level with their peers. Eliminate existing splits and/or improve split balance.
- Minimize the number of times any single child must be moved by rezonings.

- **Minimize impact on communities.**

- Keep all students from each neighborhood/community together at the same school.
- Minimize the division of clearly identifiable community components (i.e. villages, settled areas, etc.)

- **Maximize student transportation efficiency.**

- Account for school bus routes when determining a boundary adjustment.
- Minimize travel times and costs. Students should be assigned to the school closest to their homes when possible.



- Use major roads and natural boundaries when feasible to define attendance zones. Minimize the number of students crossing major intersections and other barriers to maximize their safety and security. Contain bus routes within natural boundaries to avoid traffic delays and late arrivals.
- Make all effort to establish contiguous attendance zones. Avoid creating satellite zones, which are not connected to the primary attendance zone. Attempt to eliminate existing satellite zones.

Review of Timeline (Committee finalized recommendation on 12/12)

Process & Timeline for Rezoning Study					
	Sept. '18	Oct. '18	Nov. '18	Dec. '18	Jan. '19
<i>Redistricting Criteria / Guideline Development</i>					
Rezoning Study					
<i>Data Collection</i>					
<i>Data Analysis / Assimilation</i>					
<i>Internal Logistics Planning with district</i>					
<i>Background Report Development</i>					
<i>Baseline Options Development</i>					
<i>Public Information Session #1: Present Project Process, Criteria, Timeline, and Realignment Objectives to Community. Information meeting to public, without public comments.</i>		10/10			
<u><i>Committee Meeting 1</i></u> <i>- Orientation, Review Background Data, Introduce Baseline Options</i>		10/11			
<u><i>Committee Meeting 2</i></u> <i>- Options Development</i>		10/24			
<u><i>Committee Meeting 3</i></u> <i>- Options Development, Prepare for Public Information Session #2</i>			11/14		
<i>Public Information Session #2: Present Preliminary Realignment Options to Community for Comment/Feedback</i>			11/28		
<u><i>Committee Meeting 4</i></u> <i>- Review public input, modify options</i>				12/12	
<u><i>Committee Meeting 5</i></u> <i>- Finalize Recommendations & Prepare for Board Presentation</i>					1/8
<i>Presentation of Final Recommendations to the Board of Education</i>					1/15

We are here

Work done to date

- Committee met 4 times since October 2018 and has spent many hours between meetings reviewing information
- The committee has reviewed 5 variations of DRAFT options since the process started
 - Started with 2 MS DRAFT options; additional options generated each meeting based on committee and public feedback

Work done to date

- Data and information examined includes: school enrollment and capacity, demographics, feeder pattern data, student impacts, and feedback from members of the public.
- Options are considered DRAFT throughout the process; continued dialog and consideration of data is always encouraged

Work done to date

- The public's feedback has been incorporated into options for the committee's review, but the committee has been advised to only change options per public suggestions if it brings the options closer to adherence to the rezoning criteria.

Help from the Public

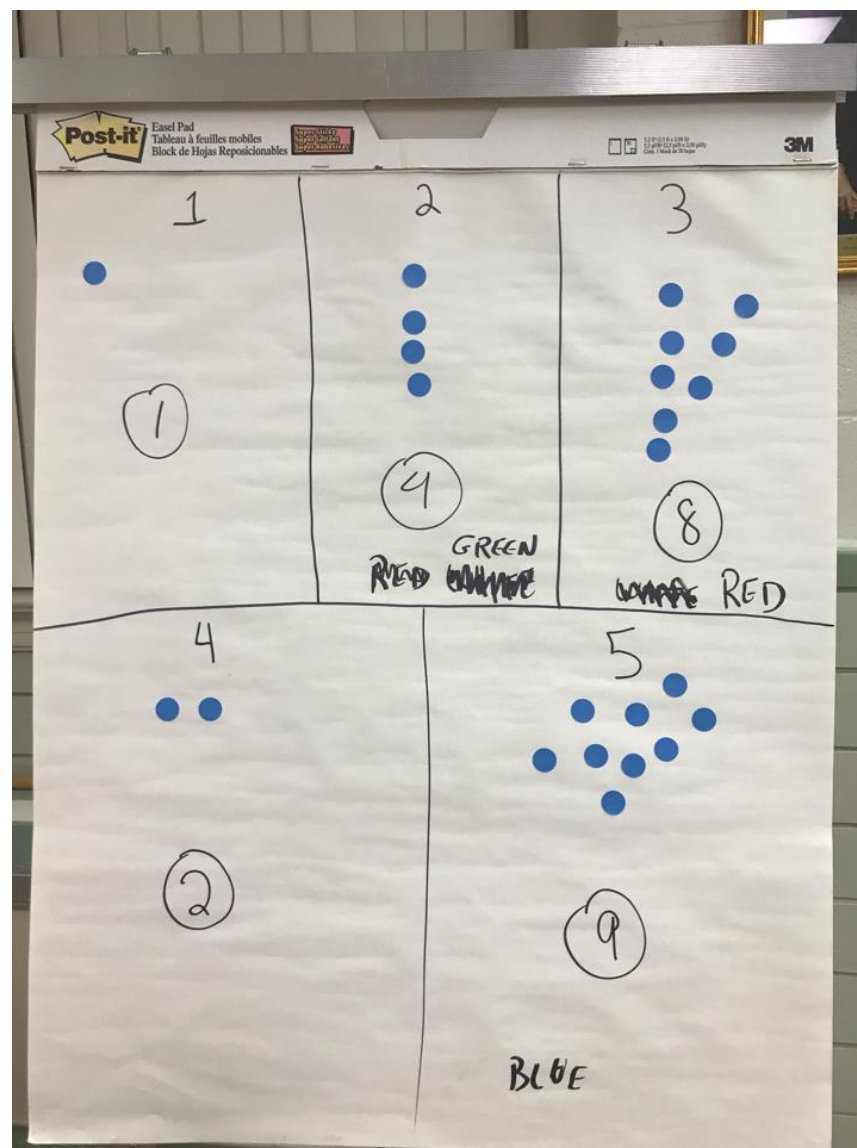
- The public has been engaged during the entire process, and have provided ongoing input since the process began.
 - 100's of emails and comments have been received via the realignment feedback form.
 - All materials shared with the committee have been posted online for anyone to view/download.
 - Interactive map enables all to view options and planning block data.

Help from the Public

- Two Public Information Sessions were hosted throughout the process to keep the public informed and to solicit feedback.
 - October 10th session held to inform public on upcoming process.
 - November 28th session held to update public on DRAFT options that were being considered.
 - 75 attended session, and over 240 respondents participated in online survey.

Committee's Progress

- The committee narrowed down to 3 options to present at the November 28th Public Information Session



Committee's Recommendation

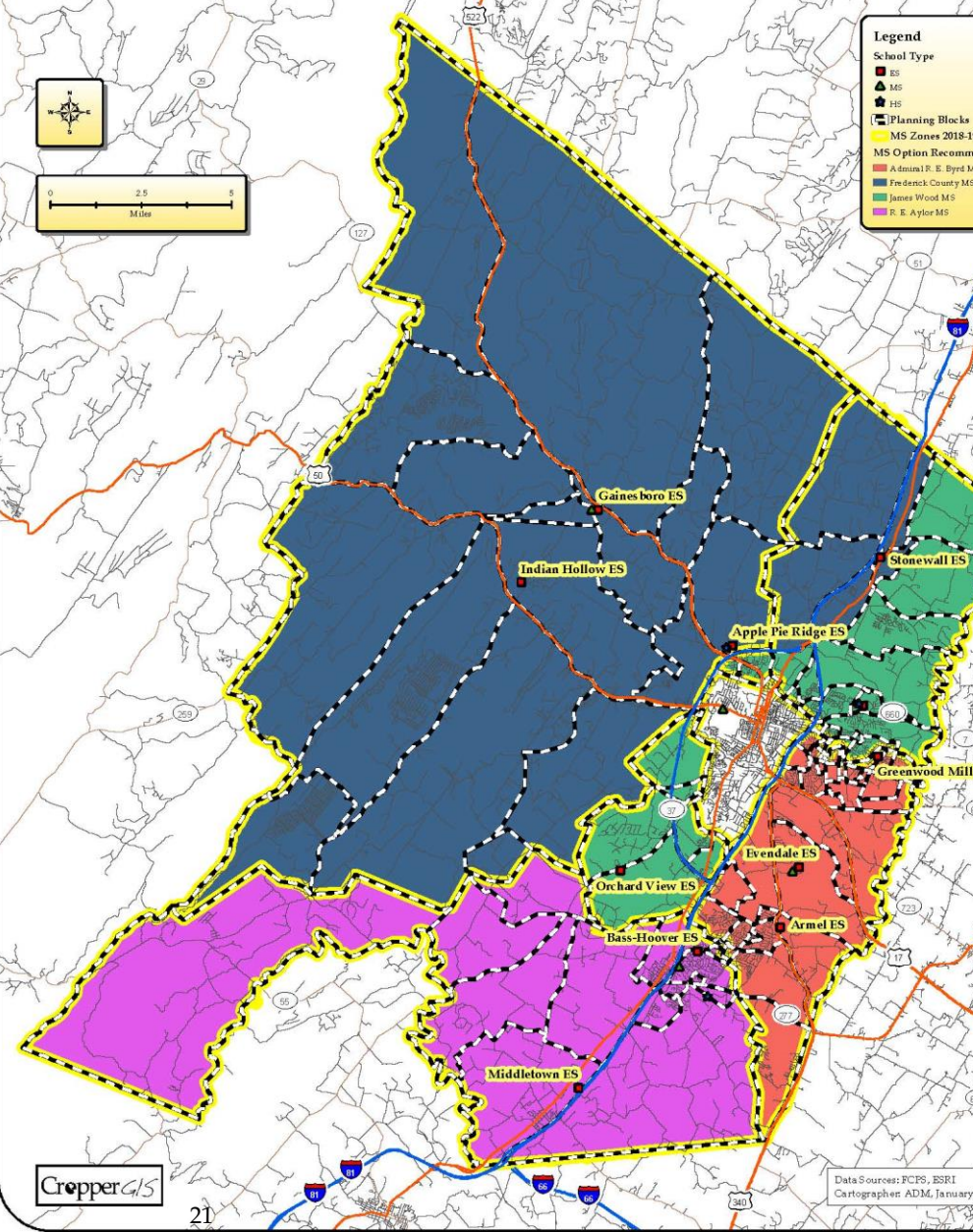
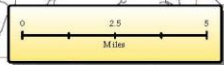
- At the committee's 4th meeting, they reviewed the input from the public and determined that they were ready to make a recommendation.



Frederick County Public Schools, VA Middle School Option Recommendation DRAFT



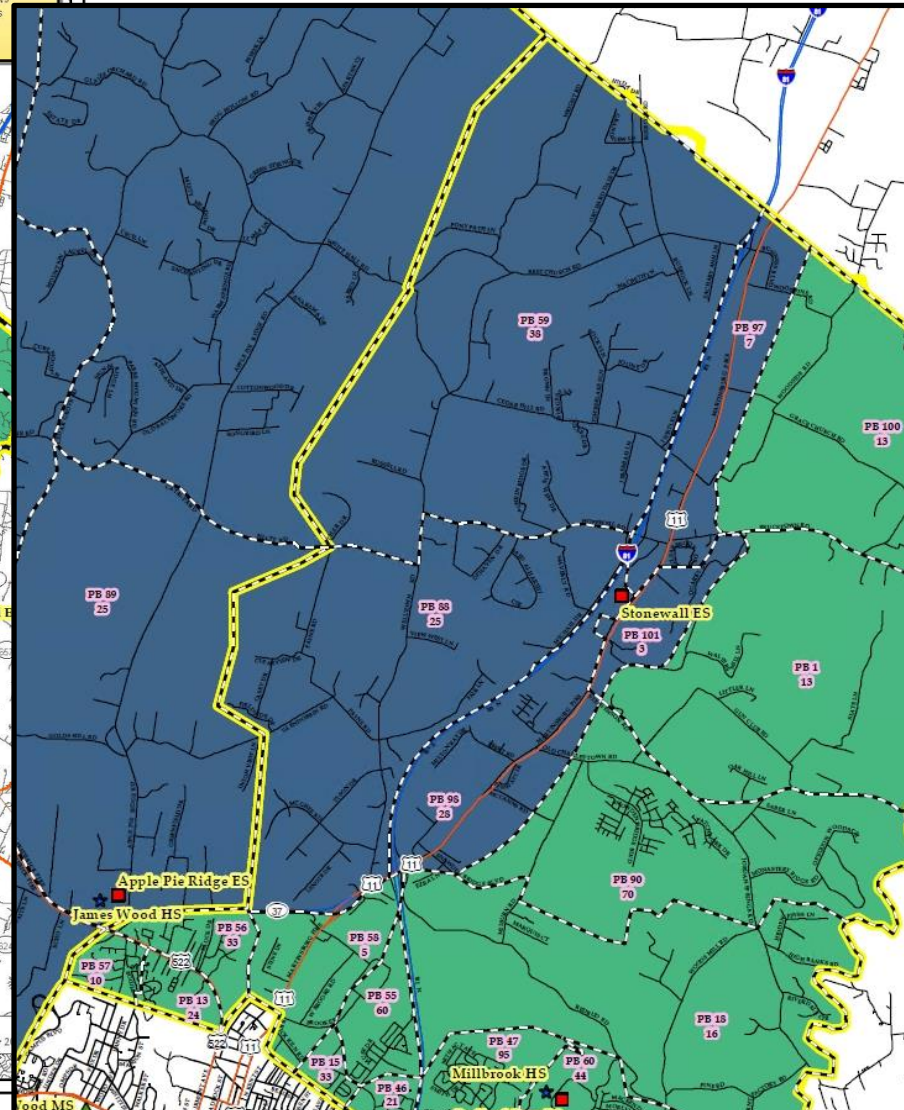
- Legend**
- School Type
 - ES
 - MS
 - HS
 - Planning Blocks
 - MS Zones 2018-19
 - MS Option Recommendation
 - Admiral R. E. Byrd MS
 - Frederick County MS
 - James Wood MS
 - R. E. Aylor MS



CropperGIS

Data Sources: FCPS, ESRI
Cartographer: ADM, January 2019

Committee's Recommendation



Committee's Recommendation

Middle School	2018-19 Capacity	Total Enrolled	MS DRAFT Option Recommendation Estimated Enrollment ¹
Admiral R. E. Byrd MS	900	970	953
Frederick County MS	900	713	820
James Wood MS	900	953	845
R. E. Aylor MS	720	609	627
Total	3420	3245	3245

Student counts are based on the 9/14/2018 FCPS student database.

¹ Estimated enrollment is calculated by adding the 2018-19 Unmatched students to their currently enrolled school plus the 6-8th grade live-in totals within each option.

Middle School	2019-20 Capacity	MS DRAFT Option Recommendation Projected Enrollment ²
Admiral R. E. Byrd MS	900	959
Frederick County MS	900	818
James Wood MS	900	855
R. E. Aylor MS	720	616
Total	3420	3248

Student counts are based on the 9/14/2018 FCPS student

² Projected enrollment is calculated by adding the 2018-19 Unmatched students to their currently enrolled school plus the 5-7th grade live-in totals within each option.

Middle School	2018-19 Capacity	Enrolled Utilization	MS DRAFT Option Recommendation Estimated Utilization
Admiral R. E. Byrd MS	900	107.8%	105.9%
Frederick County MS	900	79.2%	91.1%
James Wood MS	900	105.9%	93.9%
R. E. Aylor MS	720	84.6%	87.1%
Total	3420	94.9%	94.9%

Student counts are based on the 9/14/2018 FCPS student database.

Estimated enrollment is calculated by adding the 2018-19 Unmatched students to their currently enrolled school plus the 6-8th grade live-in totals within each option.

Middle School	2019-20 Capacity	MS DRAFT Option Recommendation Projected Utilization
Admiral R. E. Byrd MS	900	106.6%
Frederick County MS	900	90.9%
James Wood MS	900	95.0%
R. E. Aylor MS	720	85.6%
Total	3420	95.0%

Student counts are based on the 9/14/2018 FCPS

Projected enrollment is calculated by adding the 2018-19 Unmatched students to their currently enrolled school plus the 5-7th grade live-in totals within each option.

Committee's Recommendation

Middle School	Enrolled							
	Percent Black	Percent White	Percent American Indian/ Alaskan Native	Percent Asian	Percent Native Hawaiian/ Pacific Islander	Percent Two Or More Races	Percent Non-Hispanic	Percent Hispanic
Admiral R. E. Byrd MS	6.2 %	84.1 %	0.4 %	2.5 %	0.3 %	6.5 %	82.1 %	17.9 %
Frederick County MS	2.0 %	94.1 %	0.8 %	0.4 %	0.0 %	2.7 %	91.9 %	8.1 %
James Wood MS	5.9 %	85.1 %	0.5 %	2.2 %	0.0 %	6.3 %	72.8 %	27.2 %
R. E. Aylor MS	4.9 %	88.0 %	0.2 %	1.0 %	0.0 %	5.9 %	86.4 %	13.6 %
Total	4.9%	87.3%	0.5%	1.7%	0.1%	5.5%	82.3%	17.7%

Middle School	MS DRAFT Option Recommendation Estimated Enrollment							
	Percent Black	Percent White	Percent American Indian/ Alaskan Native	Percent Asian	Percent Native Hawaiian/ Pacific Islander	Percent Two Or More Races	Percent Non-Hispanic	Percent Hispanic
Admiral R. E. Byrd MS	6.1 %	84.1 %	0.4 %	2.7 %	0.3 %	6.4 %	82.3 %	17.7 %
Frederick County MS	1.8 %	93.5 %	0.7 %	0.5 %	0.0 %	3.4 %	92.0 %	8.0 %
James Wood MS	6.6 %	84.5 %	0.6 %	2.4 %	0.0 %	5.9 %	70.3 %	29.7 %
R. E. Aylor MS	4.9 %	88.0 %	0.2 %	0.6 %	0.0 %	6.2 %	86.0 %	14.0 %
Total	4.9%	87.3%	0.5%	1.7%	0.1%	5.5%	82.3%	17.7%

Student counts are based on the 9/14/2018 FCPS student database.

Estimated enrollment is calculated by adding the 2018-19 Unmatched students to their currently enrolled school plus the 6-8th grade live-in totals within each option.

Committee's Recommendation

2018-19 ES Zone	2018-19 MS Zone	Total K-5th Live-In	ES Attendance
Apple Pie Ridge ES	Frederick County MS	207	53%
Apple Pie Ridge ES	James Wood MS	186	47%
Armel ES	Admiral R. E. Byrd MS	628	100%
Bass-Hoover ES	R. E. Aylor MS	600	100%
Evendale ES	Admiral R. E. Byrd MS	516	100%
Gainesboro ES	Frederick County MS	429	100%
Greenwood Mill ES	Admiral R. E. Byrd MS	381	63%
Greenwood Mill ES	James Wood MS	225	37%
Indian Hollow ES	Frederick County MS	430	95%
Indian Hollow ES	R. E. Aylor MS	24	5%
Middletown ES	R. E. Aylor MS	497	100%
Orchard View ES	Admiral R. E. Byrd MS	183	43%
Orchard View ES	Frederick County MS	88	20%
Orchard View ES	James Wood MS	142	33%
Orchard View ES	R. E. Aylor MS	17	4%
Redbud Run ES	James Wood MS	694	100%
Stonewall ES	James Wood MS	668	100%

Option	Total 6-8th Live-In Students Impacted
DRAFT Option Recommendation	101

2018-19 MS Zone	2018-19 HS Zone	Total 6-8th Live-In	MS Attendance
Admiral R. E. Byrd MS	Millbrook High School	518	54%
Admiral R. E. Byrd MS	Sherando High School	435	46%
Frederick County MS	James Wood High School	713	100%
James Wood MS	James Wood High School	286	30%
James Wood MS	Millbrook High School	601	64%
James Wood MS	Sherando High School	54	6%
R. E. Aylor MS	Sherando High School	622	100%

MS DRAFT Option Recommendation Zone	2018-19 HS Zone	Total 6-8th Live-In	MS Attendance
Admiral R. E. Byrd MS	Millbrook High School	518	54%
Admiral R. E. Byrd MS	Sherando High School	435	46%
Frederick County MS	James Wood High School	814	100%
James Wood MS	James Wood High School	185	22%
James Wood MS	Millbrook High School	601	72%
James Wood MS	Sherando High School	54	6%
R. E. Aylor MS	Sherando High School	622	100%

2018-19 ES Zone	MS DRAFT Option Recommendation Zone	Total K-5th Live-In	ES Attendance
Apple Pie Ridge ES	Frederick County MS	207	53%
Apple Pie Ridge ES	James Wood MS	186	47%
Armel ES	Admiral R. E. Byrd MS	628	100%
Bass-Hoover ES	R. E. Aylor MS	600	100%
Evendale ES	Admiral R. E. Byrd MS	516	100%
Gainesboro ES	Frederick County MS	429	100%
Greenwood Mill ES	Admiral R. E. Byrd MS	381	63%
Greenwood Mill ES	James Wood MS	225	37%
Indian Hollow ES	Frederick County MS	430	95%
Indian Hollow ES	R. E. Aylor MS	24	5%
Middletown ES	R. E. Aylor MS	497	100%
Orchard View ES	Admiral R. E. Byrd MS	183	43%
Orchard View ES	Frederick County MS	88	20%
Orchard View ES	James Wood MS	142	33%
Orchard View ES	R. E. Aylor MS	17	4%
Redbud Run ES	James Wood MS	694	100%
Stonewall ES	Frederick County MS	202	30%
Stonewall ES	James Wood MS	466	70%

Next Steps:

- Cropper GIS Consulting will assist the School Board and staff in further understanding the recommendation, if necessary.
- When ready, the School Board can vote on a plan.
 - The public has been told that it is still TBD, but the Board vote is expected to be on February 5, 2019.
 - Implementation is expected to be Fall 2019, so it would be best if a plan is approved as soon as possible. This allows the FCPS staff to begin preparations for the boundary changes (notifying parents, staffing, bus routing).

Questions?