

Frederick County Public Schools, VA Rezoning Study

Meeting 1 Option Statistics

Cropper GIS

Enrollment Statistics Assumptions

The following document contains a series of tables and maps that depict statistics for current schools and boundaries, as well as redistricting options that are being evaluated. These options are considered a DRAFT, and could be subject to change or new options created. This information will help inform all stakeholders on how schools could be potentially impacted as a result of potential redistricting adjustments, along with a comparison to current school information.

When estimating enrollment for the redistricting options, a series of assumptions were made. These assumptions help to ensure that actual enrollments will materialize as close to the estimates as possible. The following assumptions were made:

1. The New R. E. Aylor Middle School will have a capacity of 914 students.
2. Any 6th through 5th grade student living within an Middle School Zone is assumed to attend their zoned school.
3. Any student that could not be located in the GIS is assumed to be attending the school they currently attend.

All Student counts are based off of the Student Database received 05/22/2020.

Middle School Options Estimated Enrollment Statistics

For each Option, Estimated Enrollment is calculated by adding all of the 6th through 5th Grade students that live inside each zone, plus any Unmatched students that currently attend that school. These estimates are based off the current student population and where they live. They have not been projected or forecasted into the future.

Middle School	2019-20 Capacity	06	07	08	Total Enrolled	Enrolled Utilization
Admiral R. E. Byrd MS	900	354	345	333	1032	115%
Frederick County MS	900	256	301	275	832	92%
James Wood MS	900	306	307	274	887	99%
R. E. Aylor MS	720	194	221	212	627	87%
Total	3420	1110	1174	1094	3378	99%

		Option 1				
Middle School	Option Capacity	06	07	08	Estimated Enrollment	Estimated Utilization
Admiral R. E. Byrd MS	900	293	282	281	856	95%
Frederick County MS	900	257	305	287	849	94%
James Wood MS	900	306	306	259	871	97%
R. E. Aylor MS	914	254	281	267	802	88%
Total	3614	1110	1174	1094	3378	93%

		Option 2				
Middle School	Option Capacity	06	07	08	Estimated Enrollment	Estimated Utilization
Admiral R. E. Byrd MS	900	295	272	283	850	94%
Frederick County MS	900	257	305	287	849	94%
James Wood MS	900	304	316	257	877	97%
R. E. Aylor MS	914	254	281	267	802	88%
Total	3614	1110	1174	1094	3378	93%

		Option 3				
Middle School	Option Capacity	06	07	08	Estimated Enrollment	Estimated Utilization
Admiral R. E. Byrd MS	900	300	282	291	873	97%
Frederick County MS	900	257	305	287	849	94%
James Wood MS	900	299	306	249	854	95%
R. E. Aylor MS	914	254	281	267	802	88%
Total	3614	1110	1174	1094	3378	93%

Middle School Options Estimated Enrollment Statistics(Continued)

Middle School	Option Capacity	Option 4				
		06	07	08	Estimated Enrollment	Estimated Utilization
Admiral R. E. Byrd MS	900	284	286	275	845	94%
Frederick County MS	900	258	305	287	850	94%
James Wood MS	900	298	299	252	849	94%
R. E. Aylor MS	914	270	284	280	834	91%
Total	3614	1110	1174	1094	3378	93%

Middle School Options Free and Reduced Meals Statistics

Middle School	Enrolled		Option 1		Option 2	
	Free or Reduced Meals %	Non-Free or Reduced Meals %	Free or Reduced Meals %	Non-Free or Reduced Meals %	Free or Reduced Meals %	Non-Free or Reduced Meals %
Admiral R. E. Byrd MS	32%	68%	32%	68%	27%	73%
Frederick County MS	38%	62%	37%	63%	37%	63%
James Wood MS	49%	51%	49%	51%	53%	47%
R. E. Aylor MS	45%	55%	43%	57%	43%	57%
Total	40%	60%	40%	60%	40%	60%

Middle School	Option 3		Option 4	
	Free or Reduced Meals %	Non-Free or Reduced Meals %	Free or Reduced Meals %	Non-Free or Reduced Meals %
Admiral R. E. Byrd MS	29%	71%	28%	72%
Frederick County MS	37%	63%	38%	62%
James Wood MS	52%	48%	49%	51%
R. E. Aylor MS	43%	57%	47%	53%
Total	40%	60%	40%	60%

Middle School Options Race and Ethnicity Statistics

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	5.0%	84.7%	0.6%	3.6%	0.2%	5.9%	78.4%	21.6%
Frederick County MS	1.6%	94.5%	0.7%	0.5%	0.0%	2.8%	91.1%	8.9%
James Wood MS	4.6%	85.9%	0.6%	2.8%	0.0%	6.1%	65.6%	34.4%
R. E. Aylor MS	7.7%	85.3%	0.5%	0.8%	0.2%	5.6%	84.2%	15.8%
Total	4.6%	87.5%	0.6%	2.1%	0.1%	5.1%	79.2%	20.8%

Middle School	Option 1							
	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	5.1%	85.0%	0.6%	3.0%	0.1%	6.1%	80.3%	19.7%
Frederick County MS	1.5%	94.5%	0.7%	0.5%	0.0%	2.8%	91.4%	8.6%
James Wood MS	4.5%	86.2%	0.6%	2.9%	0.0%	5.9%	65.1%	34.9%
R. E. Aylor MS	7.2%	84.3%	0.5%	2.0%	0.2%	5.7%	80.7%	19.3%
Total	4.6%	87.5%	0.6%	2.1%	0.1%	5.1%	79.2%	20.8%

Middle School	Option 2							
	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	4.9%	85.6%	0.5%	3.4%	0.1%	5.4%	81.6%	18.4%
Frederick County MS	1.5%	94.5%	0.7%	0.5%	0.0%	2.8%	91.4%	8.6%
James Wood MS	4.7%	85.6%	0.7%	2.5%	0.0%	6.5%	63.9%	36.1%
R. E. Aylor MS	7.2%	84.3%	0.5%	2.0%	0.2%	5.7%	80.7%	19.3%
Total	4.6%	87.5%	0.6%	2.1%	0.1%	5.1%	79.2%	20.8%

Middle School	Option 3							
	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	4.9%	85.5%	0.6%	2.7%	0.1%	6.2%	81.8%	18.2%
Frederick County MS	1.5%	94.5%	0.7%	0.5%	0.0%	2.8%	91.4%	8.6%
James Wood MS	4.7%	85.8%	0.6%	3.2%	0.0%	5.7%	63.2%	36.8%
R. E. Aylor MS	7.2%	84.3%	0.5%	2.0%	0.2%	5.7%	80.7%	19.3%
Total	4.6%	87.5%	0.6%	2.1%	0.1%	5.1%	79.2%	20.8%

Middle School	Option 4							
	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	4.5%	87.2%	0.5%	2.8%	0.1%	4.9%	82.2%	17.8%
Frederick County MS	1.5%	94.5%	0.7%	0.5%	0.0%	2.8%	91.4%	8.6%
James Wood MS	4.6%	86.0%	0.6%	2.9%	0.0%	5.9%	64.8%	35.2%
R. E. Aylor MS	7.7%	82.4%	0.6%	2.2%	0.2%	7.0%	78.5%	21.5%
Total	4.6%	87.5%	0.6%	2.1%	0.1%	5.1%	79.2%	20.8%

Elementary School Option Impacts

The cells colored in green reflect live-in students who are not moved, and the cells colored in tan show the number of live-in students that are moved, where they are currently zoned, and where they will be zoned per the option. The first table shows a sum of all students impacted per the option and the total percentage of Live-In students impacted.

Student Impact Estimates		
Option	Total 6-8th Live-In Students Impacted	Percent 6-8th Live-In Students Impacted
DRAFT Option 1	162	4.1 %
DRAFT Option 2	380	11.4 %
DRAFT Option 3	289	8.6 %
DRAFT Option 4	374	11.2 %

MS Zone 2018-19	MS DRAFT Option 1 Zone	Total 6-8th Live In Students
Admiral R. E. Byrd MS	Admiral R. E. Byrd MS	855
Admiral R. E. Byrd MS	R. E. Aylor MS	161
Frederick County MS	Frederick County MS	836
Frederick County MS	R. E. Aylor MS	1
James Wood MS	James Wood MS	855
R. E. Aylor MS	R. E. Aylor MS	639
R. E. Aylor MS	R. E. Aylor MS	639

MS Zone 2018-19	MS Draft Option 2 Zone	Total 6-8th Live In Students
Admiral R. E. Byrd MS	Admiral R. E. Byrd MS	743
Admiral R. E. Byrd MS	James Wood MS	112
Admiral R. E. Byrd MS	R. E. Aylor MS	161
Frederick County MS	Frederick County MS	836
Frederick County MS	R. E. Aylor MS	1
James Wood MS	Admiral R. E. Byrd MS	106
James Wood MS	James Wood MS	749
R. E. Aylor MS	R. E. Aylor MS	639

MS Zone 2018-19	MS DRAFT Option 3 Zone	Total 6-8th Live In Students
Admiral R. E. Byrd MS	Admiral R. E. Byrd MS	800
Admiral R. E. Byrd MS	James Wood MS	55
Admiral R. E. Byrd MS	R. E. Aylor MS	161
Frederick County MS	Frederick County MS	836
Frederick County MS	R. E. Aylor MS	1
James Wood MS	Admiral R. E. Byrd MS	72
James Wood MS	James Wood MS	783
R. E. Aylor MS	R. E. Aylor MS	639

MS Zone 2018-19	MS DRAFT Option 4 Zone	Total 6-8th Live In Students
Admiral R. E. Byrd MS	Admiral R. E. Byrd MS	743
Admiral R. E. Byrd MS	R. E. Aylor MS	273
Frederick County MS	Frederick County MS	837
James Wood MS	Admiral R. E. Byrd MS	22
James Wood MS	James Wood MS	833
R. E. Aylor MS	Admiral R. E. Byrd MS	79
R. E. Aylor MS	R. E. Aylor MS	560

Elementary to Middle School Feeder Patterns Statistics

The feeder patterns represent the number of students living within the attendance boundary of both a lower grade cohort (ex. Elementary schools) and a higher grade cohort (i.e. Middle School). This is given as both the number of live-in students, and described as a percentage

2019-20 ES Zone	2019-20 MS Zone	ES Attendance
Apple Pie Ridge ES	Frederick County MS	52%
Apple Pie Ridge ES	James Wood MS	48%
Armel ES	Admiral R. E. Byrd MS	100%
Bass-Hoover ES	R. E. Aylor MS	100%
Evendale ES	Admiral R. E. Byrd MS	100%
Gainesboro ES	Frederick County MS	100%
Greenwood Mill ES	Admiral R. E. Byrd MS	61%
Greenwood Mill ES	James Wood MS	39%
Indian Hollow ES	Frederick County MS	95%
Indian Hollow ES	R. E. Aylor MS	5%
Jordan Springs ES	James Wood MS	100%
Middletown ES	R. E. Aylor MS	100%
Orchard View ES	Admiral R. E. Byrd MS	44%
Orchard View ES	Frederick County MS	19%
Orchard View ES	James Wood MS	33%
Orchard View ES	R. E. Aylor MS	5%
Redbud Run ES	James Wood MS	100%
Stonewall ES	Frederick County MS	52%
Stonewall ES	James Wood MS	48%

2019-20 ES Zone	MS Option 1 Zone	ES Attendance
Apple Pie Ridge ES	Frederick County MS	52%
Apple Pie Ridge ES	James Wood MS	48%
Armel ES	Admiral R. E. Byrd MS	57%
Armel ES	R. E. Aylor MS	43%
Bass-Hoover ES	R. E. Aylor MS	100%
Evendale ES	Admiral R. E. Byrd MS	100%
Gainesboro ES	Frederick County MS	100%
Greenwood Mill ES	Admiral R. E. Byrd MS	61%
Greenwood Mill ES	James Wood MS	39%
Indian Hollow ES	Frederick County MS	95%
Indian Hollow ES	R. E. Aylor MS	5%
Jordan Springs ES	James Wood MS	100%
Middletown ES	R. E. Aylor MS	100%
Orchard View ES	Admiral R. E. Byrd MS	44%
Orchard View ES	Frederick County MS	18%
Orchard View ES	James Wood MS	33%
Orchard View ES	R. E. Aylor MS	6%
Redbud Run ES	James Wood MS	100%
Stonewall ES	Frederick County MS	52%
Stonewall ES	James Wood MS	48%

Elementary to Middle School Feeder Patterns Statistics (Continued)

2019-20 ES Zone	MS Option 2 Zone	ES Attendance
Apple Pie Ridge ES	Frederick County MS	52%
Apple Pie Ridge ES	James Wood MS	48%
Armel ES	Admiral R. E. Byrd MS	57%
Armel ES	R. E. Aylor MS	43%
Bass-Hoover ES	R. E. Aylor MS	100%
Evendale ES	Admiral R. E. Byrd MS	100%
Gainesboro ES	Frederick County MS	100%
Greenwood Mill ES	Admiral R. E. Byrd MS	100%
Indian Hollow ES	Frederick County MS	95%
Indian Hollow ES	R. E. Aylor MS	5%
Jordan Springs ES	James Wood MS	100%
Middletown ES	R. E. Aylor MS	100%
Orchard View ES	Frederick County MS	18%
Orchard View ES	James Wood MS	76%
Orchard View ES	R. E. Aylor MS	6%
Redbud Run ES	James Wood MS	100%
Stonewall ES	Frederick County MS	52%
Stonewall ES	James Wood MS	48%

2019-20 ES Zone	MS Option 3 Zone	ES Attendance
Apple Pie Ridge ES	Frederick County MS	52%
Apple Pie Ridge ES	James Wood MS	48%
Armel ES	Admiral R. E. Byrd MS	57%
Armel ES	R. E. Aylor MS	43%
Bass-Hoover ES	R. E. Aylor MS	100%
Evendale ES	Admiral R. E. Byrd MS	100%
Gainesboro ES	Frederick County MS	100%
Greenwood Mill ES	Admiral R. E. Byrd MS	42%
Greenwood Mill ES	James Wood MS	58%
Indian Hollow ES	Frederick County MS	95%
Indian Hollow ES	R. E. Aylor MS	5%
Jordan Springs ES	James Wood MS	100%
Middletown ES	R. E. Aylor MS	100%
Orchard View ES	Admiral R. E. Byrd MS	76%
Orchard View ES	Frederick County MS	18%
Orchard View ES	R. E. Aylor MS	6%
Redbud Run ES	James Wood MS	100%
Stonewall ES	Frederick County MS	52%
Stonewall ES	James Wood MS	48%

Elementary to Middle School Feeder Patterns Statistics (Continued)

2019-20 ES Zone	MS Option 4 Zone	ES Attendance
Apple Pie Ridge ES	Frederick County MS	52%
Apple Pie Ridge ES	James Wood MS	48%
Armel ES	Admiral R. E. Byrd MS	57%
Armel ES	R. E. Aylor MS	43%
Bass-Hoover ES	R. E. Aylor MS	100%
Evendale ES	Admiral R. E. Byrd MS	100%
Gainesboro ES	Frederick County MS	100%
Greenwood Mill ES	Admiral R. E. Byrd MS	61%
Greenwood Mill ES	James Wood MS	39%
Indian Hollow ES	Admiral R. E. Byrd MS	5%
Indian Hollow ES	Frederick County MS	95%
Jordan Springs ES	James Wood MS	100%
Middletown ES	Admiral R. E. Byrd MS	13%
Middletown ES	R. E. Aylor MS	87%
Orchard View ES	Admiral R. E. Byrd MS	17%
Orchard View ES	Frederick County MS	19%
Orchard View ES	James Wood MS	20%
Orchard View ES	R. E. Aylor MS	53%
Redbud Run ES	James Wood MS	100%
Stonewall ES	Frederick County MS	52%
Stonewall ES	James Wood MS	48%

Middle to High School Feeder Patterns Statistics

2019-20 MS Zone	2019-20 HS Zone	MS Attendance
Admiral R. E. Byrd MS	Millbrook High School	51%
Admiral R. E. Byrd MS	Sherando High School	49%
Frederick County MS	James Wood High School	100%
Frederick County MS	Sherando High School	0%
James Wood MS	James Wood High School	25%
James Wood MS	Millbrook High School	69%
James Wood MS	Sherando High School	6%
R. E. Aylor MS	Sherando High School	100%

MS Option 1 Zone	2019-20 HS Zone	MS Attendance
Admiral R. E. Byrd MS	Millbrook High School	61%
Admiral R. E. Byrd MS	Sherando High School	39%
Frederick County MS	James Wood High School	100%
James Wood MS	James Wood High School	25%
James Wood MS	Millbrook High School	69%
James Wood MS	Sherando High School	6%
R. E. Aylor MS	Sherando High School	100%

MS Option 2 Zone	2019-20 HS Zone	MS Attendance
Admiral R. E. Byrd MS	Millbrook High School	74%
Admiral R. E. Byrd MS	Sherando High School	26%
Frederick County MS	James Wood High School	100%
James Wood MS	James Wood High School	25%
James Wood MS	Millbrook High School	56%
James Wood MS	Sherando High School	19%
R. E. Aylor MS	Sherando High School	100%

MS Option 3 Zone	2019-20 HS Zone	MS Attendance
Admiral R. E. Byrd MS	James Wood High School	2%
Admiral R. E. Byrd MS	Millbrook High School	53%
Admiral R. E. Byrd MS	Sherando High School	44%
Frederick County MS	James Wood High School	100%
James Wood MS	James Wood High School	23%
James Wood MS	Millbrook High School	77%
R. E. Aylor MS	Sherando High School	100%

MS Option 4 Zone	2019-20 HS Zone	MS Attendance
Admiral R. E. Byrd MS	Millbrook High School	62%
Admiral R. E. Byrd MS	Sherando High School	38%
Frederick County MS	James Wood High School	100%
Frederick County MS	Sherando High School	0%
James Wood MS	James Wood High School	26%
James Wood MS	Millbrook High School	71%
James Wood MS	Sherando High School	4%
R. E. Aylor MS	Sherando High School	100%

Glossary of Terms

Capacity – the number of students that an individual school has the physical capacity to enroll and can be reasonably accommodated in a facility.

Utilization - Utilization is the enrollment divided by the capacity, described as a percentage.

Live-in students – Students residing inside of a school attendance boundary, regardless of where that student attends school.

Unmatched – Students whose home address was not able to be placed on the map.

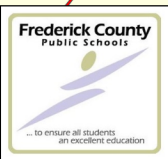
Out of District students – Students that live outside of New Kent County Schools boundary.

Estimated Enrollment – Estimated Enrollment is calculated by adding the Live-In students plus Unmatched students.

Option Impact – The number of Live and Attend-In students that change attendance boundaries from the 2018-19 attendance boundaries given each option. In other words, an estimate of the total number of students that could be impacted per any of the options.

Feeder Pattern – The number of students living within the attendance boundary of both a lower grade cohort (ex. Elementary schools) and a higher grade cohort (i.e. Middle School). This is given as both the number of live-in students, and described as a percentage

Frederick County Public Schools, VA Middle School Zones 2020-21



Legend

Type



MS



HS



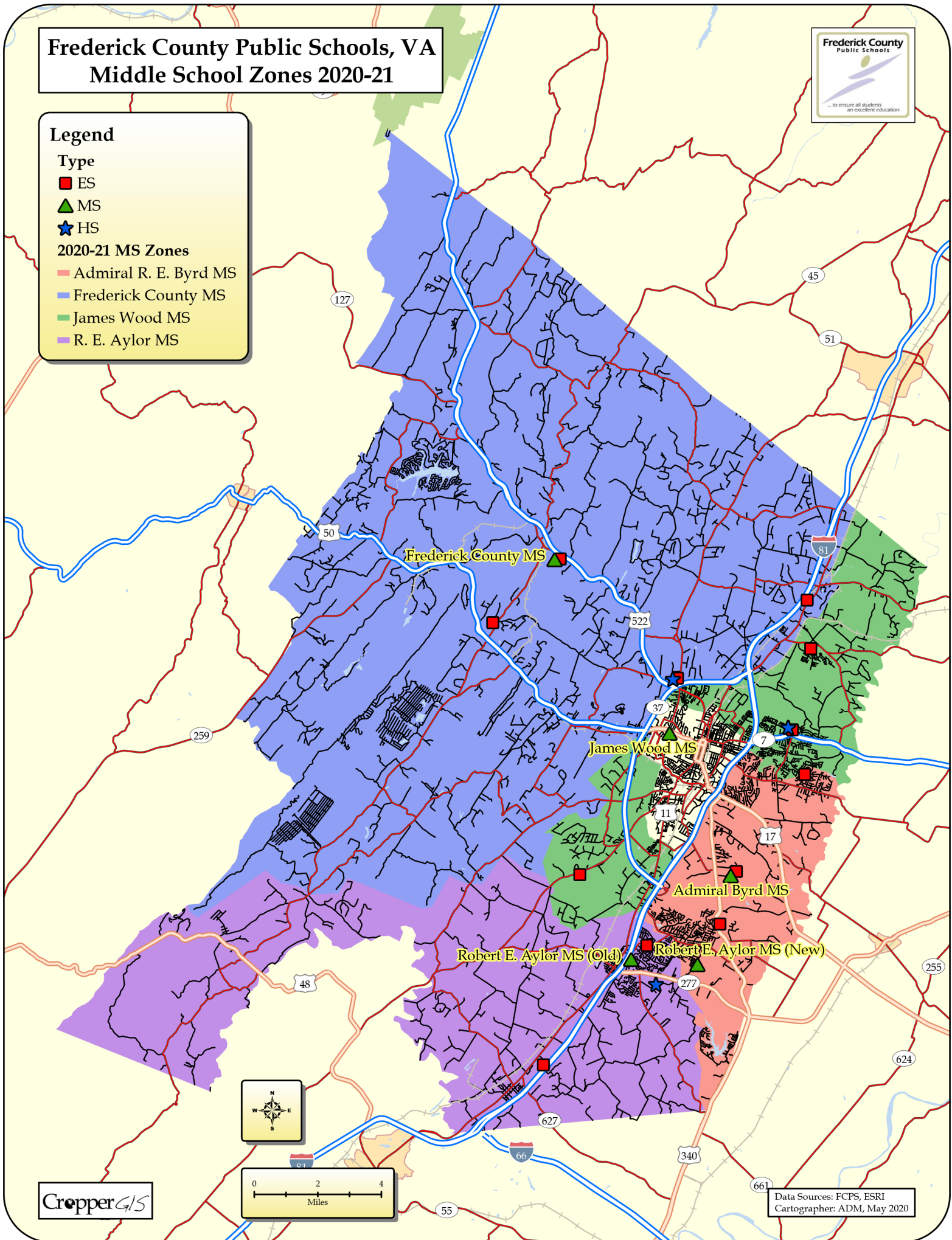
2020-21 MS Zones

Admiral R. E. Byrd MS

Frederick County MS

James Wood MS

R. E. Aylor MS



Frederick County Public Schools, VA Middle School Zones DRAFT Option 1



Legend

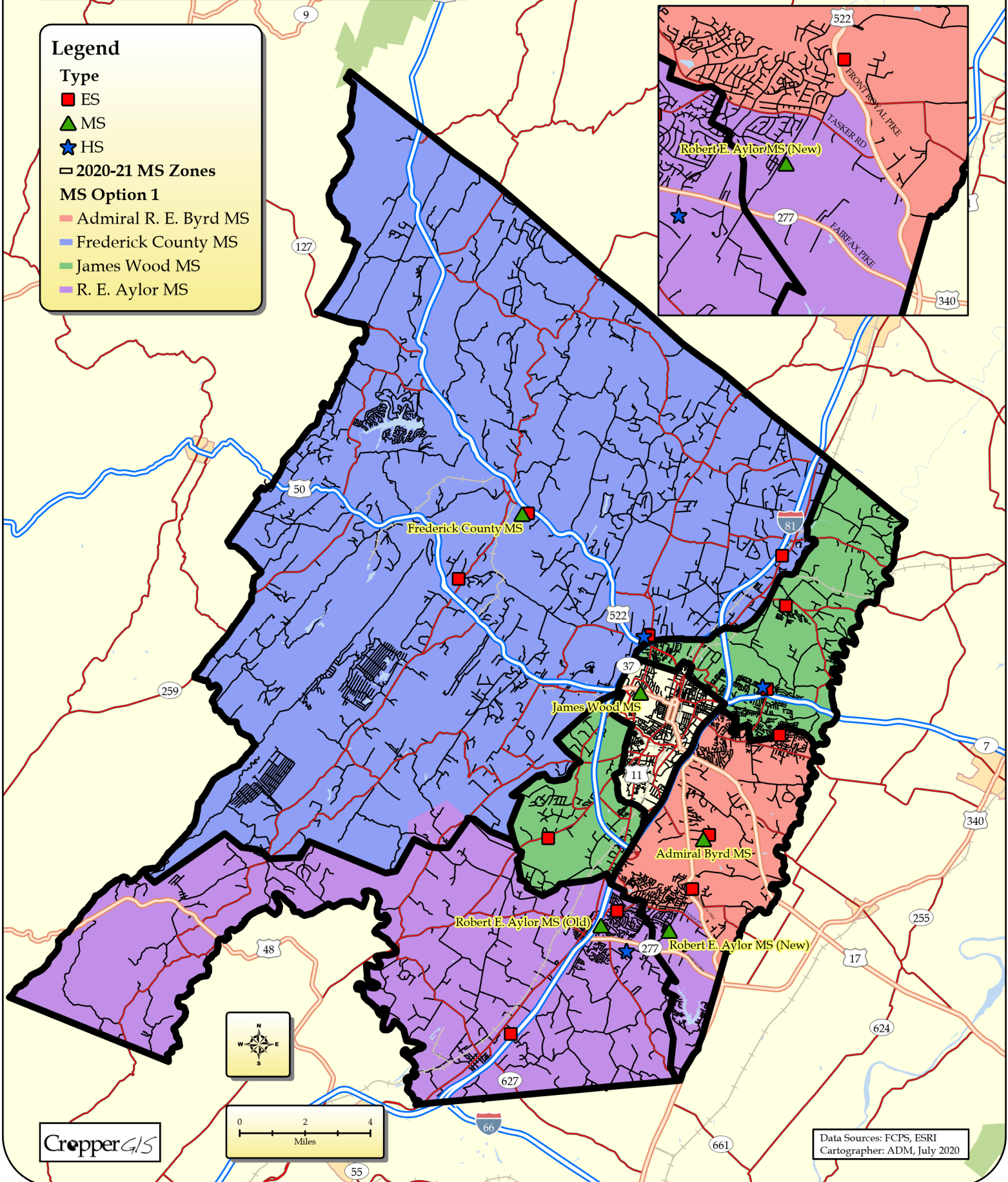
Type

- ES
- MS
- HS

2020-21 MS Zones

MS Option 1

- Admiral R. E. Byrd MS
- Frederick County MS
- James Wood MS
- R. E. Aylor MS



Frederick County Public Schools, VA Middle School Zones DRAFT Option 2



Legend

Type

■ ES

▲ MS

★ HS

▭ 2020-21 MS Zones

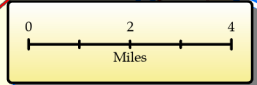
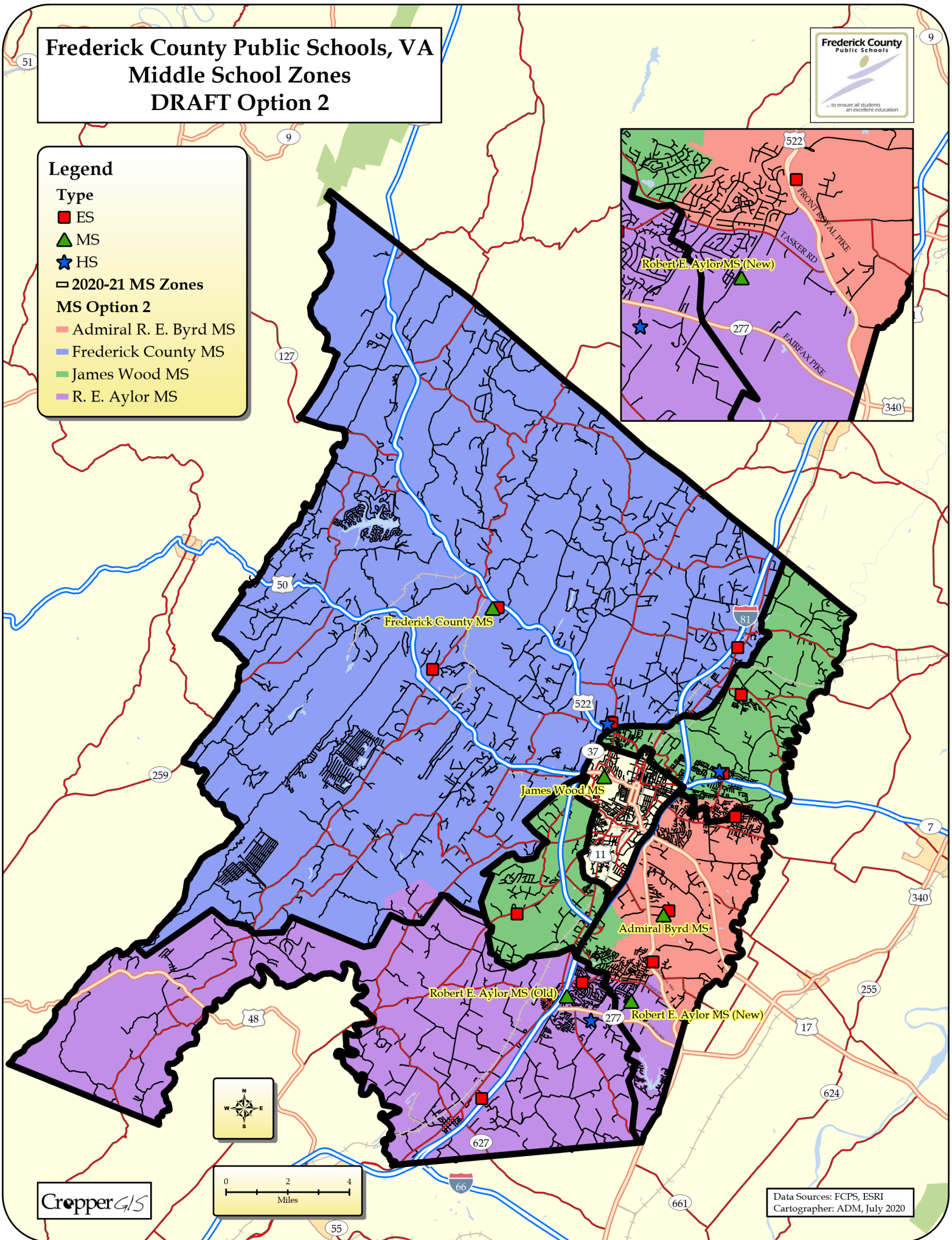
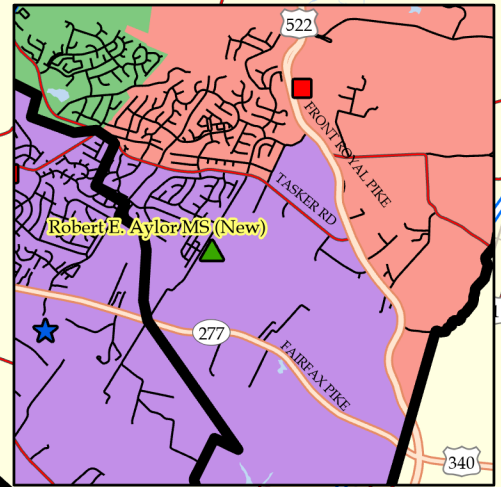
MS Option 2

■ Admiral R. E. Byrd MS

■ Frederick County MS

■ James Wood MS

■ R. E. Aylor MS



CropperGIS

Data Sources: FCPS, ESRI
Cartographer: ADM, July 2020

Frederick County Public Schools, VA Middle School Zones DRAFT Option 3



Legend

Type

■ ES

▲ MS

★ HS

▭ 2020-21 MS Zones

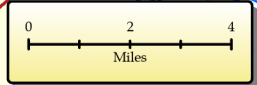
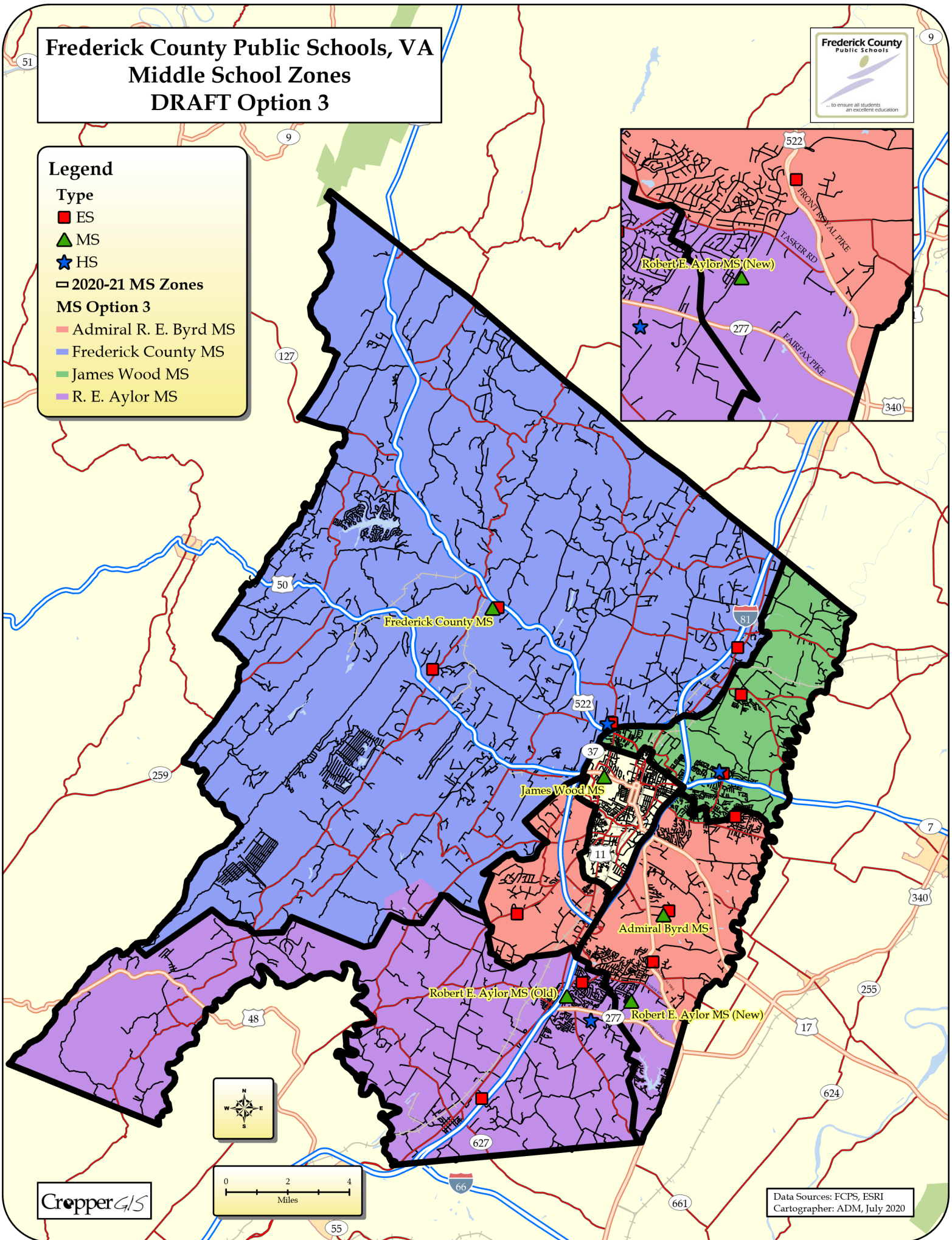
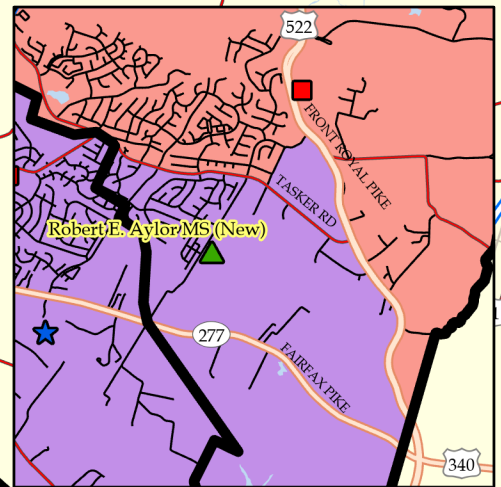
MS Option 3

Admiral R. E. Byrd MS

Frederick County MS

James Wood MS

R. E. Aylor MS



CropperGIS

Data Sources: FCPS, ESRI
Cartographer: ADM, July 2020

Frederick County Public Schools, VA Middle School Zones DRAFT Option 4



Legend

Type

- ES
- MS
- HS

2020-21 MS Zones

MS Option 4

- Admiral R. E. Byrd MS
- Frederick County MS
- James Wood MS
- R. E. Aylor MS

