



*Frederick County
Public Schools*

**Frederick County Public Schools, VA
Fall 2020 Middle School Rezoning Study**

**Board Approved 2021-22 Zones
Statistics and Maps**

Cropper GIS

Enrollment Statistics Assumptions

The following document contains a series of maps and statistics for current schools and boundaries, as well as the for the Board Approved 2021-22 Zones, as voted on by the Board at the January 2021 meeting. This final product is the result of months of work by the Rezoning Committee, the district, and the staff at Cropper GIS. As many as seven DRAFT Options were considered during this process, and the Board feels that this option best serves the needs of the district and best adheres to the rezoning criteria and objectives established by the district at the beginning of this process.

When estimating enrollment for the rezoning options, a series of assumptions were made. These assumptions helped to ensure that actual enrollments would 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 8th grade student living within a middle school zone is assumed to attend their zoned school.
3. Any student that could not be located by the GIS is assumed to be attending the school they currently attend, per the student database.

All student counts are based on the FCPS student database received 05/22/2020.

Middle School Options Estimated Enrollment Statistics

Estimated enrollment is calculated by adding all the 6th through 8th grade students that live inside each zone, plus any unmatched students that currently attend that school. These estimates are based on 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	1,032	115%
Frederick County MS	880	256	301	275	832	95%
James Wood MS	840	306	307	274	887	106%
R. E. Aylor MS	713	194	221	212	627	88%
Total	3,333	1,110	1,174	1,094	3,378	101%

Board Approved MS Zones 2021-22						
Middle School	Option Capacity	06	07	08	Estimated Enrollment	Estimated Utilization
Admiral R. E. Byrd MS	900	299	282	296	877	97%
Frederick County MS	880	257	305	287	849	96%
James Wood MS	840	290	298	237	825	98%
R. E. Aylor MS	914	264	289	274	827	90%
Total	3,534	1,110	1,174	1,094	3,378	96%

Middle School Options Free and Reduced Meals Statistics

Middle School	Enrolled		Board Approved	
	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%	29%	71%
Frederick County MS	38%	62%	37%	63%
James Wood MS	49%	51%	53%	47%
R. E. Aylor MS	45%	55%	42%	58%
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	Board Approved MS Zones 2021-22							
	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%	0.6%	3.2%	0.1%	5.6%	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	4.8%	85.7%	0.6%	2.5%	0.0%	6.3%	62.4%	37.6%
R. E. Aylor MS	7.0%	84.3%	0.5%	2.2%	0.2%	5.8%	80.9%	19.1%
Total	4.6%	87.5%	0.6%	2.1%	0.1%	5.1%	79.2%	20.8%






Middle School Enrollment Trends

The following tables depict the trends for current school enrollment as well as the Final Recommendation.

If there are more students in lower grade levels than the higher grade levels this indicates enrollment growth since the lower, larger student groups will move up through the school, while the higher, smaller student groups will move on to the next grade level or graduate. Enrollment growth is symbolized by a green arrow pointing up. If there are fewer students in lower grade levels than higher grade levels, this indicates enrollment decline. This negative trend is symbolized by a red arrow pointing down. If all the grade levels are approximately the same size, then there is enrollment stability, and this is symbolized by a yellow line. See the reference below for each of the symbols. This trend data helps to depict how enrollment will change with the absence of in-migration (i.e. future residential construction).

Enrollment Growth	
Enrollment Stability	
Enrollment Decline	

Middle School	0	1	2	3	4	5	6	7	8	2019-20 Total Live-In Enrollment Trend
Admiral R. E. Byrd MS	279	300	282	276	261	313	347	335	334	
Frederick County MS	195	233	229	214	226	260	254	300	283	
James Wood MS	276	309	302	295	315	290	301	296	258	
R. E. Aylor MS	188	190	198	183	201	207	198	228	213	
Total	938	1,032	1,011	968	1,003	1,070	1,100	1,159	1,088	

Middle School	0	1	2	3	4	5	6	7	8	Board Approved MS Zones Total Live-In Enrollment Trend
Admiral R. E. Byrd MS	237	265	248	253	234	274	299	282	295	
Frederick County MS	195	232	228	213	225	260	253	300	283	
James Wood MS	259	288	277	271	292	268	285	288	236	
R. E. Aylor MS	247	247	258	231	252	268	263	289	274	
Total	938	1,032	1,011	968	1,003	1,070	1,100	1,159	1,088	

Middle School Key Developments

In addition to the trend data, we have provided the number of vacant lots and active building permits issued through the end of August 2020 for future residential development. This will help depict the growth that can be expected from future approved residential development.

Middle School	2019-201 MS Zones		Board Approved MS Zones 2021-22	
	Vacant Lots	Active 2020 Building Permits Issued	Vacant Lots	Active 2020 Building Permits Issued
Admiral R. E. Byrd MS	1,180	179	1,175	141
Frederick County MS	2,048	15	2,048	15
James Wood MS	97	69	97	69
R. E. Aylor MS	20	32	25	70
Total	3,345	295	3,345	295

Middle School Option Impacts

The cells colored in green depict the number of live-in students that are not moved, and the cells colored in tan depict the number of live-in students that are moved, where they are currently zoned, and where they will be zoned per the Final Recommendation. The first table shows a sum of live-in students impacted 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
Board Approved	354	10.6%

MS Zone 2019-20	Board Approved MS Zones 2021-22	Total 6-8th Live In Students
Admiral R. E. Byrd MS	Admiral R. E. Byrd MS	770
Admiral R. E. Byrd MS	James Wood MS	60
Admiral R. E. Byrd MS	R. E. Aylor MS	186
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	748
R. E. Aylor MS	James Wood MS	1
R. E. Aylor MS	R. E. Aylor MS	639

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 (i.e. elementary schools) and a higher-grade cohort (i.e. middle schools). The first table below depicts the number of splits from lower grade cohort schools to higher grade cohort schools in the “Schools Split” column. For example, Apple Pie Ridge ES feeds into both Frederick County MS and James Wood MS, and that is considered one split. The “Splits Less than 25%” column depicts the number of relatively small splits, a small split being one where a relatively small percentage (under 25% in this case) of students at a given school breaks away from peers upon graduating from one grade cohort to the next. The following tables show each school and each split by percentage by higher grade cohort attendance zones.

ES to MS Splits by Option		
Option	Elementary Schools Split	Splits Less than 25%
2019-20 MS Zones	5	3
Board Approved	5	4

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	Board Approved MS Zones 2021-22	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	50%
Armel ES	R. E. Aylor MS	50%
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	Admiral R. E. Byrd MS	19%
Orchard View ES	Frederick County MS	18%
Orchard View ES	James Wood MS	58%
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%

Middle to High School Feeder Patterns Statistics

MS to HS Splits by Option		
Option	Middle Schools Split	Splits Less than 25%
2019-20 MS Zones	3	2
Board Approved	2	1

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%

Board Approved MS Zones 2021-22	2019-20 HS Zone	MS Attendance
Admiral R. E. Byrd MS	Millbrook High School	71%
Admiral R. E. Byrd MS	Sherando High School	29%
Frederick County MS	James Wood High School	100%
James Wood MS	James Wood High School	26%
James Wood MS	Millbrook High School	60%
James Wood MS	Sherando High School	14%
R. E. Aylor MS	Sherando High School	100%

Glossary of Terms

Capacity - The number of students that an individual school can physically enroll.

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

Live-In students - Students that reside in a given attendance zone, regardless of actual school attendance.

Live and Attend-In students - Students that both reside in a given attendance zone and attend that zoned school.

Unmatched - Students not able to be located by the GIS by home address.

Out of District students - Students that live outside of Frederick County Public Schools' district boundary.

Estimated Enrollment - Estimated enrollment is calculated by adding the live-in students and the unmatched students.

Option Impact - The number of live and attend-in students that change attendance zones from the 2019-20 attendance zones in each option. In other words, an estimate of the total number of students that would be impacted in each option.

Feeder Pattern - The number of students living within the attendance zone of both a given lower grade cohort (i.e. elementary school) and a given higher-grade cohort (i.e. middle school). This is presented as both the number of live-in students and as a percentage

Frederick County Public Schools, VA Middle School Zones Board Approved 2021-22 Zones



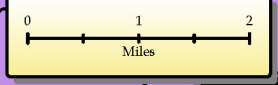
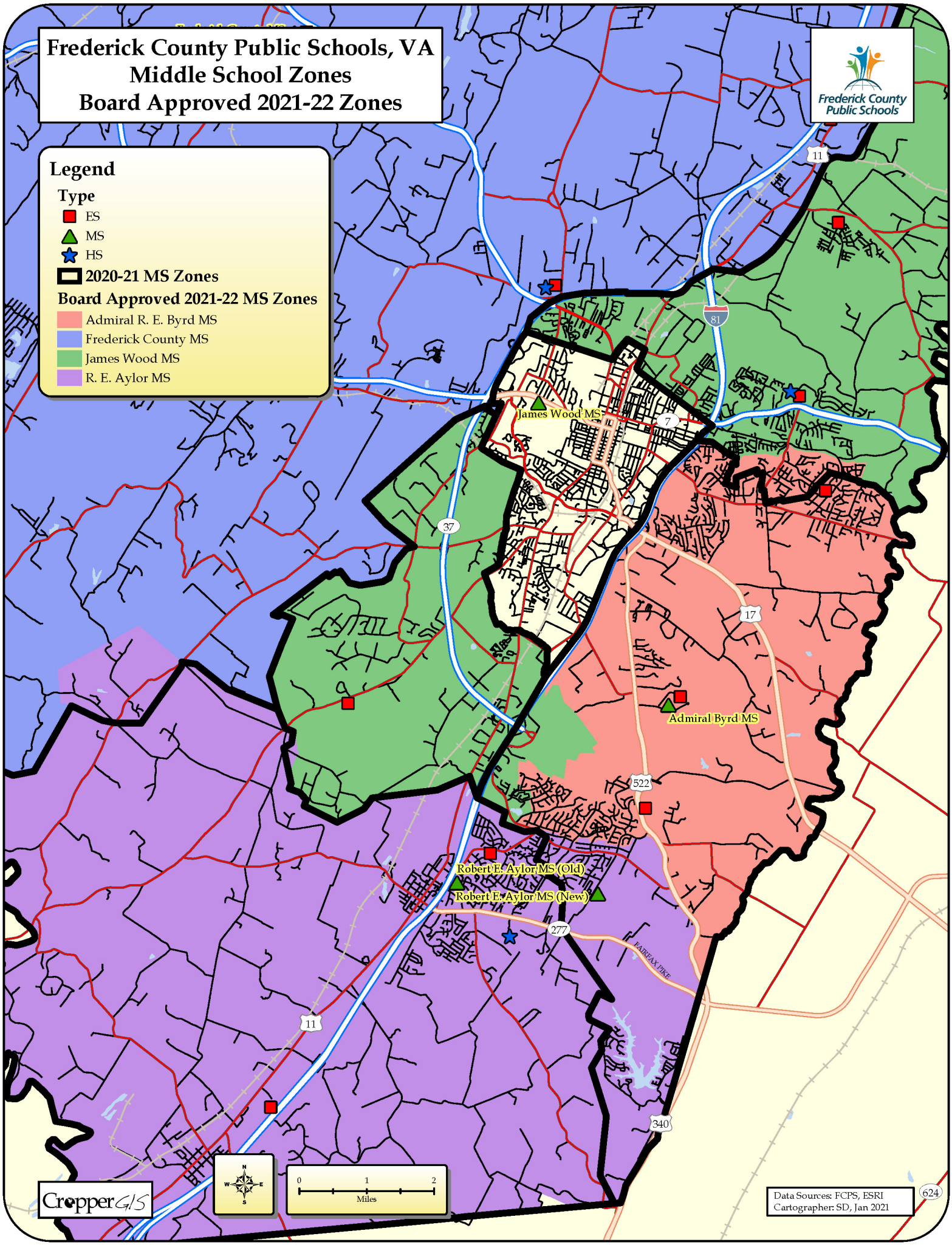
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Type

- ES
- ▲ MS
- ★ HS
- ▭ 2020-21 MS Zones

Board Approved 2021-22 MS Zones

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



Data Sources: FCPS, ESRI
Cartographer: SD, Jan 2021

Frederick County Public Schools, VA Board Approved 2021-22 MS Zones Primary Impact Area



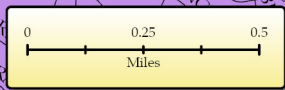
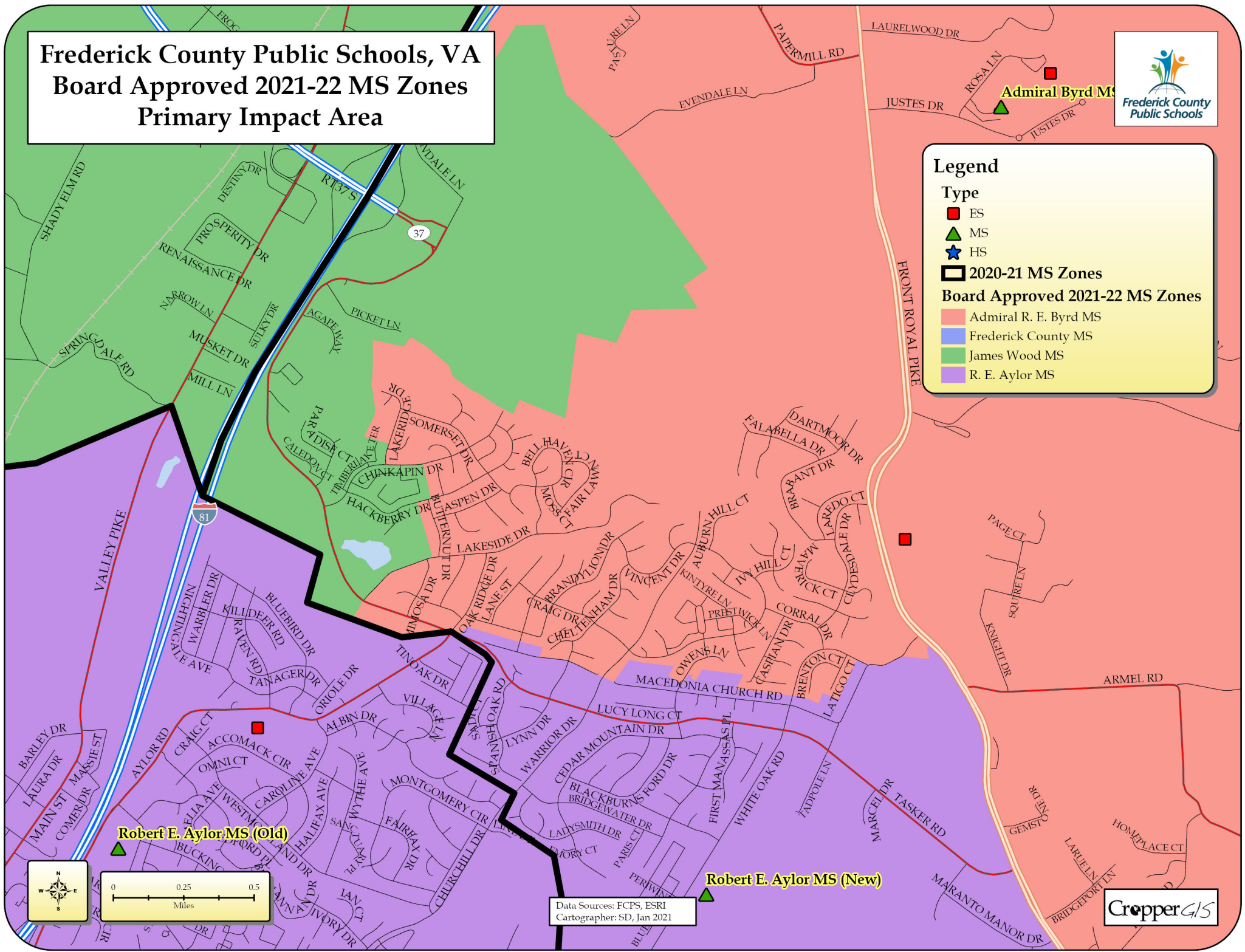
Legend

Type

- ES
- ▲ MS
- ★ HS
- 2020-21 MS Zones

Board Approved 2021-22 MS Zones

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



Data Sources: FCPS, ESRI
Cartographer: SD, Jan 2021

