

# **Evaluation for the Sachem CSD**

## **INTRODUCTION**

The objective of this evaluation is to present alternative plans for closing two elementary and one middle school. It was originally proposed to present two plans from which one would be selected by the Board of Education (BOE) for detailed reassignments. The final plan would include a detailed district map identifying the 'new' elementary and middle school attendance zones.

Each of the two plans includes minimum disruption by minimizing the number of students reassigned. In order to maintain an acceptable enrollment balance, students were reassigned to three contiguous schools. The detailed reassignments for the two plans are being prepared to share the redistricting among all attendance areas as per BOE request.

For each of the plans, two different elementary schools were chosen – one on the east side and the other on the north side. Criteria for choosing the school included the lowest capacity and lowest enrollment. As part of the proposed effort outlined by Applied Data Services (ADS), a set of criteria for selecting, creating and evaluating these plans are included below.

## **CRITICAL COMPONENTS FOR CLOSING TWO ELEMENTARY SCHOOLS AND ONE MIDDLE SCHOOL**

### **Criteria**

The criteria shown were used to choose and reassign students presented in the 'options' described herein. The criteria can be used to evaluate the options to help choose the 'best' plan.

- Maintain the K-5 grade structure
- Maintain the elementary to high school feeder structure based on the existing North/East boundary
- Minimize transportation costs
- Minimize disruption by minimizing reassignments
- Attempt to maintain neighborhoods
- Choose a plan that is sustainable for five years

### **Facility Utilization**

The utilization of each elementary and middle school facility was thoroughly reviewed by central administration in the fall of 2015. The results of classroom usage of each school, is shown on pages 2 and 3; Elementary School Utilization and Middle School Facility Utilization, respectively.



The number general usage classrooms used for the calculation of capacity but (using an average pupil teacher ratio of 27) is shown as the last column on the Elementary Facility Utilization.

Likewise, the classroom usage and capacity for each Middle School is detailed, with three sets of capacities calculated for each school based on pupil teacher ratios of 27, 30 and 35 students. This analysis used the capacities calculated for the middle schools using a pupil teacher ratio of 30.

### Enrollment Statistics

The district provided a K-12 computerized student file of 13,697 records, which was geographically coded (Geocoded) to the Sachem District Map.

Of the 13,697 records, 99 were PO Box numbers and are not included. One hundred fifty seven (157) students were outside the Sachem district (O/D) boundary; approximately 40 O/D students were assigned to their attending school. of which ninety-nine percent (99%) of the student population has been correctly geocoded. This data will be used in the redistricting process.

These geocoded enrollment totals for each school attendance areas including grades 6-8 are presented on page 5. The current feeder structure from elementary to middle to high school is also identified.

Since these school closings will not be implemented until 2016/17, the enrollments shown in this analysis will be slightly lower in 2016/17 based on a lower projected enrollment.



## Elementary Facility Utilization

Elementary School Name (K-5)	Classrooms										Other (small) <sup>G</sup>	Classrooms for Capacity <sup>H</sup>	Maximum Operational Capacity (27)
	Total Full Size	Current General Usage Rooms	Special Purpose Full Size <sup>A</sup>							Other Full Size <sup>F</sup>			
			Art	Music <sup>B</sup>	Computer	UPK <sup>C</sup>	Support Services <sup>D</sup>	SCSE	Faculty Full Size <sup>E</sup>				
Cayuga	36	21	1	2	1	0	2	1	0	8	4	29	783
Chippewa	35	17	1	2	1	2	2	3	0	7	4	24	648
Gatelot	37	19	1	2	0 <sup>I</sup>	2	2	4	0	7	3	26	702
Grundy	38	18	1	2	1	0	2	3	1	10	4	28	756
Hiawatha	40	19	1	2	1	1	2	3	0	11	5	30	810
Lynwood	37	18	1	2	1	0	2	4	0	9	5	27	729
Merrimac	35	17	1	2	1	1	2	3 <sup>J</sup>	0	8	6 <sup>K</sup>	25	675
Nokomis	38	19	1	2	1	1	2	0	1	11	4	30	810
Tamarac	38	21	1	2	1	1	2	1	0	9	4	30	810
Tecumseh	35	17	1	2	1	0	2	5	0	7	4	24	648
Waverly	37	20	1	2	1	1	2	4	0	6	6	26	702
Wenonah	37	19	1	2	1	1	2	3	0	8	7	27	729
Total	443	225	12	24	11	10	24	34	2	101	56	326	8802

Black = North Feeder    Red= East Feeder

The K – 5 maximum pupil/teacher ratio set by the 2015-2016 BOE is Kindergarten 26, 1<sup>st</sup> grade 27, 2<sup>nd</sup> grade 27, 3<sup>rd</sup> grade 28, 4<sup>th</sup> grade 29, and 5<sup>th</sup> grade 30

<sup>A</sup> each building also contains 1 large Multipurpose Room and 1 Library not reflected in the chart. The special purpose classrooms are removed from the operational capacity

<sup>B</sup> Currently elementary uses 3-4 music rooms, optimal utilization would set aside two full rooms for music use for the remaining buildings

<sup>C</sup> Optimal Utilization would set aside 1 classroom for UPK in each of the remaining buildings

<sup>D</sup> Optimal Utilization would require setting aside two full sized classrooms for support services in the remaining buildings

<sup>E</sup> Grundy and Nokomis do not have small spaces for faculty dining and would need to set aside full size rooms for that purpose.

<sup>F</sup> Other full sized rooms are used for storage, additional services, book rooms, additional music rooms etc.

<sup>G</sup> Rooms are not full sized and not included in the capacity calculation. These rooms are appropriate for small group instruction. Faculty dining was removed from the small space counts.

<sup>H</sup> Classrooms used for capacity equals the total full size classrooms minus the special purpose full size classrooms

<sup>I</sup> The computer room is part of the Multipurpose room

<sup>J</sup> BOCES program and can be reassigned to the usage if necessary

<sup>K</sup> BOCES utilizes a small space for a therapy room.

## Middle School Facility Utilization

		Classrooms											
				Special Purpose Full Size									
Middle School Name	Grade s	Total Full Size	General Usage Rooms	Art	Music	Computer	Tech	FCS	PE	*Other small	Maximum Operational Capacity (35)	Maximum Operational Capacity (30)	Maximum Operational Capacity (27)
Sagamore	6-8	59	42	2	3	4	3	2	3	*6	1470	1260	1134
Samoset	6-8	63	47	2	4	2	2	2	4	*3	1645	1410	1269
Seneca	6-8	62	47	2	3	3	2	2	3	*1	1645	1410	1269
Sequoia	6-8	57	40	2	3	4	3	2	3	*12	1400	1200	1080

- Smaller classrooms listed as "other " are typically used for resource room, hearing and vision services. These rooms are not included in the total rooms or general usage rooms count.
- The Maximum Operational Capacity equals the number of general usage rooms x pupil/teacher ratio.
- Please note: BOCES is currently using 13 classrooms in Seneca and these rooms are included in the count.
- At Samoset, BOCES is using 10 classrooms in a separate wing of the building. There are 10 total rooms, 5 are "regular" size rooms and 5 are smaller rooms. These rooms are not included in the count. District office also is currently using approximately 32 classroom spaces which include payroll, personnel, curriculum and instruction, special education, federal funds, IT, security, central registration and child care.

## Geocoded Enrollments 2015/16

The table below identifies the current geocoded enrollments for 2015/16. Specifically, all students living within the existing attendance zones are counted as attending that 'home' school. The mandated feeder structure from elementary to high school is identified in the last column.

School	Grades		Attending	
	K-5	6-8	MS	HS
Cayuga	513	304	Samoset	North
Chippewa	441	260	Sagamore	East
Gatelot	493	293	Samoset	North
Grundy	443	236	Seneca	North
Hiawatha	465	248	Seneca	North
Lynwood	445	235	Sagamore	East
Merrimac	437	227	Sequoia	East
Nokomis	475	276	Seneca	North
Tamarac	523	328	Sequoia	East
Tecumseh	421	243	Sagamore	East
Waverly	476	282	Sequoia	East
Wenonah	464	244	Samoset	North
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TOTAL	5,596			
<hr/>				
Sagamore		738		East
Samoset		841		North
Seneca		760		North
Sequoia		837		East
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TOTAL		3,176		



## REASSIGNMENT PROCESS

Maintaining the guideline of the North/East boundary for elementary to high school, the elementary school chosen for closing on the East Side assigns its students to the remaining elementary schools on the 'East Side'. Likewise, for any elementary school chosen on the 'North Side'; the students are reassigned to schools on the North Side.

### North Side

#### Close Gatelot

Closing Gatelot would leave 3,888 seats available, the maximum of seats in the North Side, to accommodate the projected 2,853 (North Side) student enrollment. Reassignments were made to assign students to their closest schools, thereby minimizing transportation costs and minimizing students reassigned.

Reassign the 493 students from Gatelot as follows. Assign 193 students to Cayuga (northern section). Assign the remaining 300 students to Hiawatha. Reassign 55 students from Hiawatha to Grundy. Reassign 100 Students from Cayuga to Wenonah. Reassign 100 students from Hiawatha to Nokomis; while maintaining contiguous attendance areas. The resulting enrollments after the reassignments are shown below.

School	Capacity	Geocoded	Resulting Enrollments
		15/16 Enr.	
Cayuga	783	513	606
Gatelot	702	493	0
Grundy	756	443	498
Hiawatha	810	465	610
Nokomis	810	475	575
Wenonah	729	464	564
TOTAL		2,853	2,853

**Total students affected 748.**



### Close Nokomis

Closing Nokomis would leave 1,402 available seats on the North side to accommodate the 2,853 North side enrollments. The Nokomis enrollment of 475 students are reassigned to result in the minimum number of students disrupted.

Reassign the 475 students from Nokomis as follows. Assign 475 students to Hiawatha. Reassign 150 Hiawatha students to Gatelot. Reassign 90 Hiawatha students to Grundy; while maintaining contiguous attendance areas. The resulting enrollments are as shown below.

<b>School</b>	<b>Capacity</b>	<b>Geocoded 15/16 Enr.</b>	<b>Resulting Enrollments</b>
Cayuga	783	513	513
Gatelot	702	493	<b>643</b>
Grundy	756	443	<b>533</b>
Hiawatha	810	465	<b>700</b>
Nokomis	810	475	0
Wenonah	729	464	464
	----- 4,590	----- 2,853	----- 2,853

**Total students impact 715.**



## East Side

### Close Tecumseh

Closing Tecumseh would leave 3,524 seats to accommodate 2,743 students. Note that Tecumseh has lowest enrollments and second in lowest capacity.

Reassign 421 students from Tecumseh as follows. Reassign 75 Lynwood students to Chippewa. Reassign students to Lynwood and Waverly; while maintaining contiguous attendance areas. The resulting enrollments are shown below.

School	Capacity	Geocoded	Resulting Enrollments
		15/16 Enr.	
Chippewa	648	441	516
Lynwood	729	445	620
Merrimac	675	437	437
Tamarac	810	523	523
Tecumseh	648	421	0
Waverly	702	476	647
TOTAL	4,212	2,743	2,743

**Total student impact 496.**

### Close Lynwood

Closing Lynwood will reassign 445 students to Tecumseh, Waverly and Chippewa with the resulting enrollments shown below.

School	Capacity	Geocoded	Resulting Enrollments
		15/16 Enr.	
Chippewa	648	441	586
Lynwood	729	445	0
Merrimac	675	437	437
Tamarac	810	523	533
Tecumseh	648	421	571
Waverly	702	476	626
	4,212	2,743	2,753

**Total student impact 445.**





### Summary Plan 1 Close Tecumseh, Gatelot and Sequoya

School	Enrollments	Feeds MS	Enrollments
	K-5		6-8
Cayuga	606	Samoset	304
Gatelot	0	Samoset	<293>
Hiawatha	610	Samoset	248
Wenonah	564	Samoset	244
Samoset	-	-	1,089
Chippewa	516	Sagamore	260
Lynwood	620	Sagamore	235
Tecumseh	0	Sagamore	< 243>
Waverly	647	Sagamore	282
Sagamore	-	-	1,020
Grundy	498	Seneca	236
Merrimac	437	Seneca	227
Nokomis	575	Seneca	276
Tamarac	523	Seneca	328
Seneca	-	-	1,067

### Summary Plan 2 Close Lynwood, Nokomis and Seneca

School	Enrollments	Feeds MS	Enrollments
	K-5		6-8
Cayuga	606	Samoset	304
Gatelot	643	Samoset	293
Nokomis	0	Samoset	< 276>
Wenonah	564	Samoset	244
Samoset	-	-	1,117
Chippewa	516	Sagamore	260
Lynwood	0	Sagamore	<235>
Tecumseh	571	Sagamore	243
Waverly	647	Sagamore	282
Sagamore	-	-	1,020
Grundy	533	Sequoya	236
Hiawatha	700	Sequoya	248
Merrimac	437	Sequoya	227
Tamarac	523	Sequoya	328
Sequoya	-	-	1,039



## **MIDDLE SCHOOL REASSIGNMENTS**

The middle school feeder structure, hence its enrollment is shown in the Summary Plans 1 and 2.

### **Plan 1 – Close Tecumseh, Gatelot and Sequoya**

The middle school enrollment for Samoset will now accept 238 students living in the Hiawatha attendance area. All middle school students in the (former) Gatelot, Cayuga and Wenonah will remain at Samoset. **Students impacted – 238**

The Sagamore assignments include the current Chippewa, Lynwood and Tecumseh students. The 282 middle school students living in the Waverly attendance area are reassigned to Sagamore. **Students impacted – 282**

Seneca maintains its middle school enrollments from Grundy and Nokomis. All grade 6-8 students living in the Merrimac and Tamarac attendance areas are reassigned to Seneca. **Student impact – 555**

**The total number of middle school students impacted by Plan 1 is 1,075**

### **Plan 2 – Close Lynwood, Nokomis and Seneca**

The 276 (Seneca) middle school students living in the Nokomis attendance area are now reassigned to Samoset. **Students impacted – 276**

The 282 for those Waverly students now attending Sequoya will be reassigned to Sagamore. **Students impacted – 282**

The current Seneca middle school students living in the Grundy and Hiawatha attendance areas will be reassigned to Sequoya. **Students impacted – 484**

**The total number of middle school students impacted by Plan 2 is 1,042**



## **Redistricting Evaluation Sachem CSD**

### **Complete Redistricting**

This complete redistricting will target an approximate enrollment balance for the elementary schools. In essence all attendance areas will be redistricted to the enrollments that would result in the same equitable space in each facility (free classrooms). In addition it will affect all elementary attendance areas.

### **Approach**

The actual counts of geocoded K-5 students in the 1/8 mile grids on the computer map were tabulated for each elementary attendance area. These 'resolved' enrollments are shown in the table below and should be still considered as approximate. These K-5 student counts are those students actually living in each attendance area, including special education students. Based on the grid counts there are a total of 5,616 K-5 students in the current attendance areas, there are with 57 (unresolved) K-5 students not geocoded.

A percentage of the 2015/16 geocoded enrollments and the capacity of the facilities provides the "target enrollments", resulting in a balance in each facility. A target enrollment of 75% of the capacity of each facility will be used for the North and East side.

### **North**

Complete Redistricting for North Side uses the Plan 1 profile as a base.

Approximately 40 students are reassigned from Cayuga to Hiawatha. Nokomis received 60 students from Hiawatha and reassigns 44 students to Grundy.

The resulting balanced enrollments are shown in the table below.

### **East**

Complete Redistricting for East Side uses the Plan 1 profile as a base.

Assign approximately 90 students from Lynwood to Waverly and then approximately 180 students from Waverly to Tamarac. Then reassign approximately 8 students from Tamarac to Merrimac.

**Plan 1 Complete Redistricting**  
**Close Tecumseh, Gatelot and Sequoya**

**Please note:** The complete redistricting profile used the Plan 1 profile as the base.

<b>North Side Schools Close Gatelot</b>	<b>Capacity</b>	<b>Resolved Plan 1 Enr. (Grid Counts)</b>	<b>Approx. 75% Target Enr.</b>	<b>Plan 1 Enr. Complete Redistricting</b>
Wenonah	729	558	550	558
Cayuga	783	624	590	584
Gatelot	702	--	-	--
Hiawatha	810	618	600	598
Nokomis	810	564	600	580
Grundy	756	499	560	543
<b>Total</b>	<b>4,590</b>	<b>2,863</b>		<b>2,863</b>
<b>Gatelot</b>	<b>-702</b>			
<b>Avail.</b>	<b>3,888</b>			

Target Enrollment versus Capacity =  $2,863/3,888 = \rightarrow 75\%$

<b>East Side Close Tecumseh</b>	<b>Capacity</b>	<b>Resolved Plan 1 Enr. (Grid Counts)</b>	<b>Approx. 75% Target Enr.</b>	<b>Plan 1 Enr. Complete Redistricting</b>
Chippewa	648	502	490	502
Lynwood	728	653	550	563
Tecumseh	648	--	-	--
Waverly	702	638	530	548
Tamarac	810	523	600	623
Merrimac	675	437	500	517
<b>Total</b>	<b>4,211</b>	<b>2,753</b>		<b>2,753</b>
<b>Tecumseh</b>	<b>-648</b>			
<b>Avail.</b>	<b>3,563</b>			

Target Enrollment versus Capacity =  $2,753/3,563 = \rightarrow 75\%$

## **Redistricting Evaluation Sachem CSD**

### **Complete Redistricting**

This complete redistricting will target an approximate enrollment balance for the elementary schools. In essence all attendance areas will be redistricted to the enrollments that would result in the same equitable space in each facility (free classrooms). In addition it will affect all elementary attendance areas.

### **Approach**

The actual counts of geocoded K-5 students in the 1/8 mile grids on the computer map were tabulated for each elementary attendance area. These 'resolved' enrollments are shown in the table below and should be still considered as approximate. These K-5 student counts are those students actually living in each attendance area, including special education students. Based on the grid counts there are a total of 5,616 K-5 students in the current attendance areas, there are with 57 (unresolved) K-5 students not geocoded.

A percentage of the 2015/16 geocoded enrollments and the capacity of the facilities provides the "target enrollments", resulting in a balance in each facility. The Plan 2 Complete Redistricting for uses the former Plan 2 profile as a base.

### **North**

The results of the Complete Redistricting for Plan 2 are shown in the last column in the table below. All attendance areas were affected by the reassignments. Reassigned areas are identified by comparing the current, attendance zones overlay (solid black line) to the Plan 2 colorized attendance zones, as shown on the attached map.

### **East**

The reassignments on the East Side affected all attendance zones.

These reassignments affect attendance zones can be identified via a comparison of the colorized Plan 2 zones against the current zones identified by the solid black line, as shown on the attached map.

**Plan 2 Complete Redistricting**  
**Close Nokomis, Lynwood and Seneca**

Please note: The complete redistricting profile used the Plan 2 profile as the base.

North Side Schools Close Nokomis	Capacity	Resolved Plan 2 Enr. (Grid Counts)	Approx. 75% Target Enr.	Plan 2 Enr. Complete Redistricting
Wenonah	729	464	550	560
Cayuga	783	519	590	587
Gatelot	702	628	525	547
Hiawatha	810	681	600	553
Nokomis	810	--	--	--
Grundy	756	568	560	613
Total	4,590	2,860		2,860
Nokomis	-810			
Avail.	3,780			

Target Enrollment versus Capacity =  $2,860/3,780 = \rightarrow 75\%$

East Side Close Lynwood	Capacity	Resolved Plan 2 Enr. (Grid Counts)	Approx. 80% Target Enr.	Plan 2 Enr. Complete Redistricting
Chippewa	648	560	520	528
Lynwood	728	--	--	--
Tecumseh	648	595	520	525
Waverly	702	628	560	510
Tamarac	810	528	650	638
Merrimac	675	437	540	555
Total	4,211	2,756		2,756
Lynwood	-728			
Avail.	3,483			

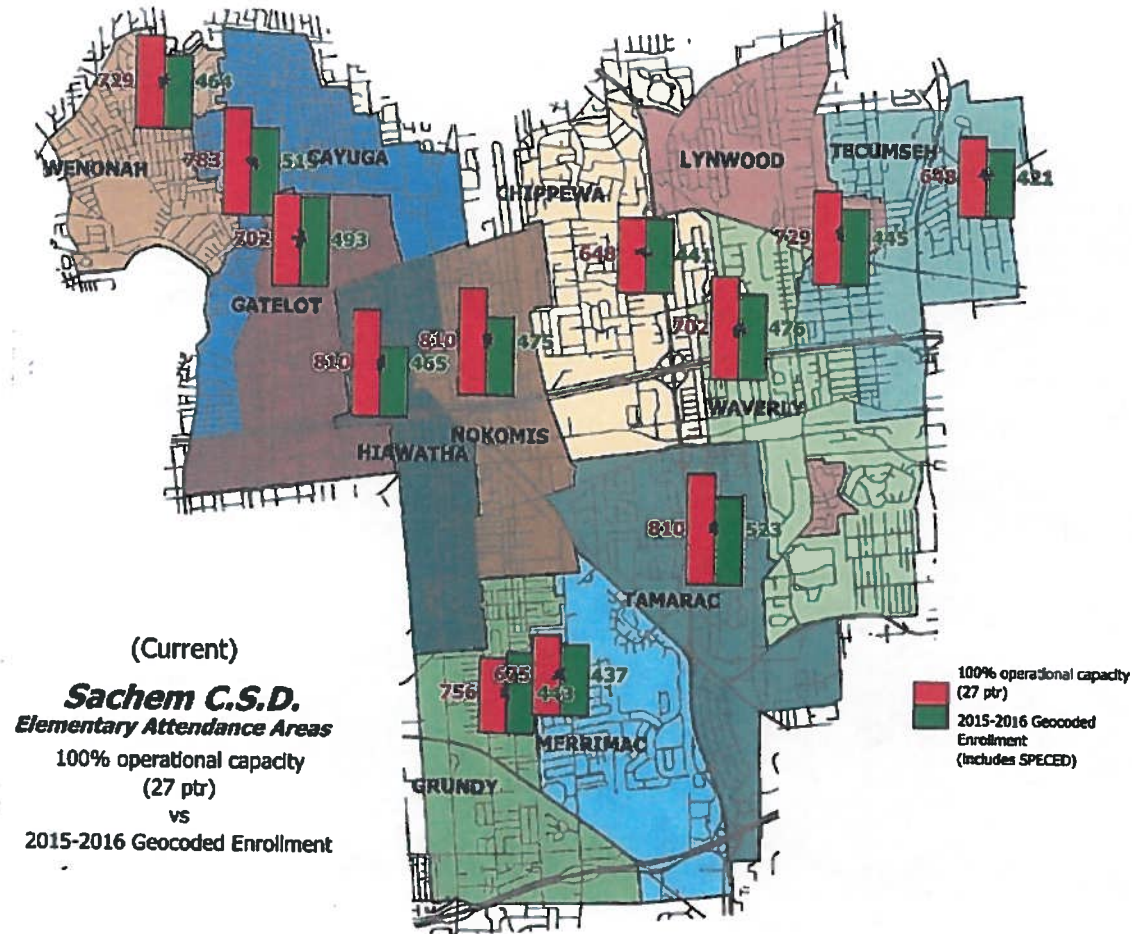
Target Enrollment versus Capacity =  $2,756/3,483 = \rightarrow 80\%$

Comments

The close geographic proximity of Wenonah, Cayuga and Gatelot elementary schools result in 'not so acceptable' attendance areas for those 3 schools. A modification to the redistricting approach would be to increase the capacities of Gatelot and Hiawatha by

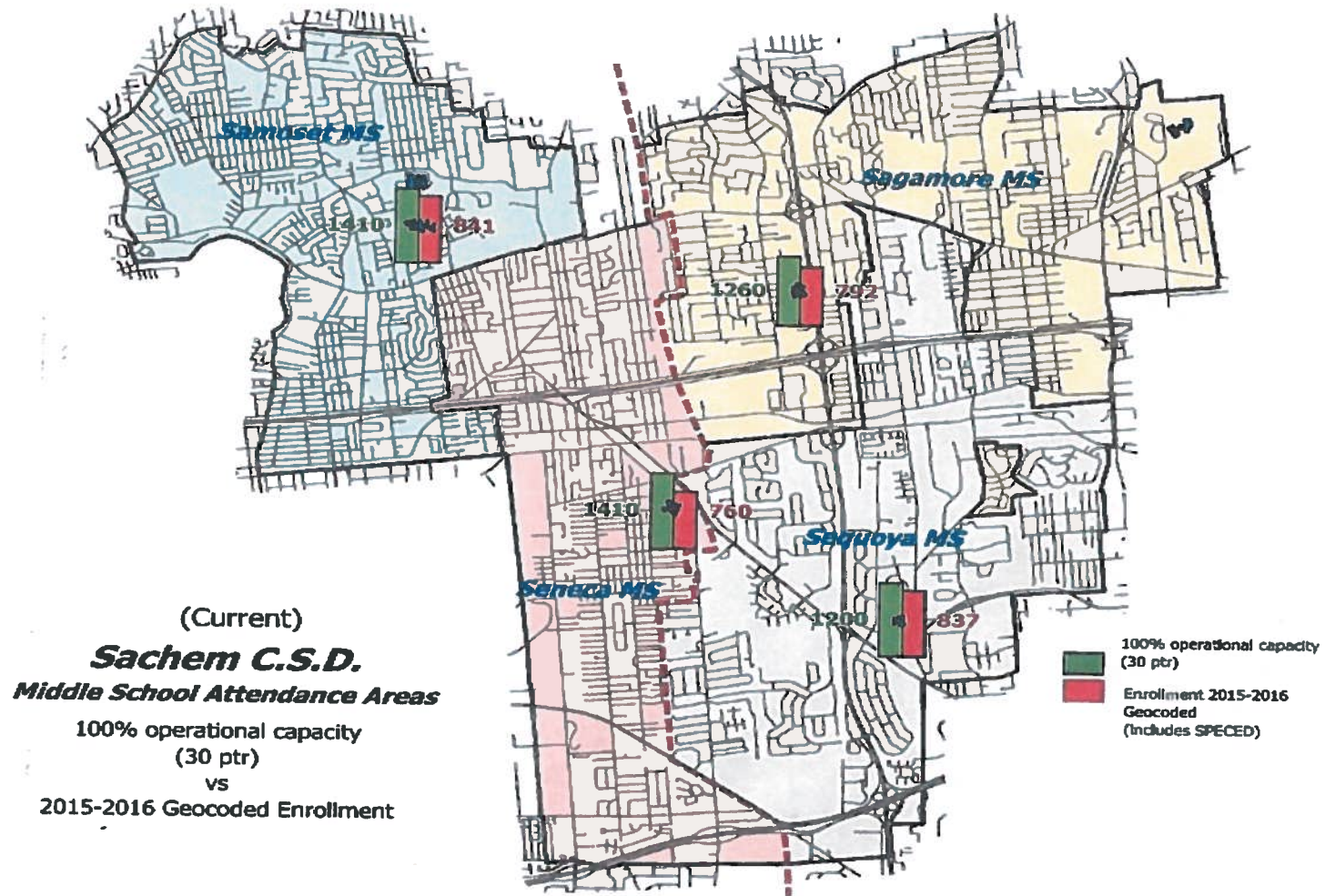
reclaiming available 'other' rooms and special program rooms in Gatelot and Hiawatha; then assign the maximum number of students to the schools allowing for a better attendance area configuration for Cayuga. Students could be reassigned from Cayuga to Gatelot, specifically the 'finger' east and closer to the Gatelot attendance area. More space would be available to Cayuga for accepting special programs.

# Sachem Central School District

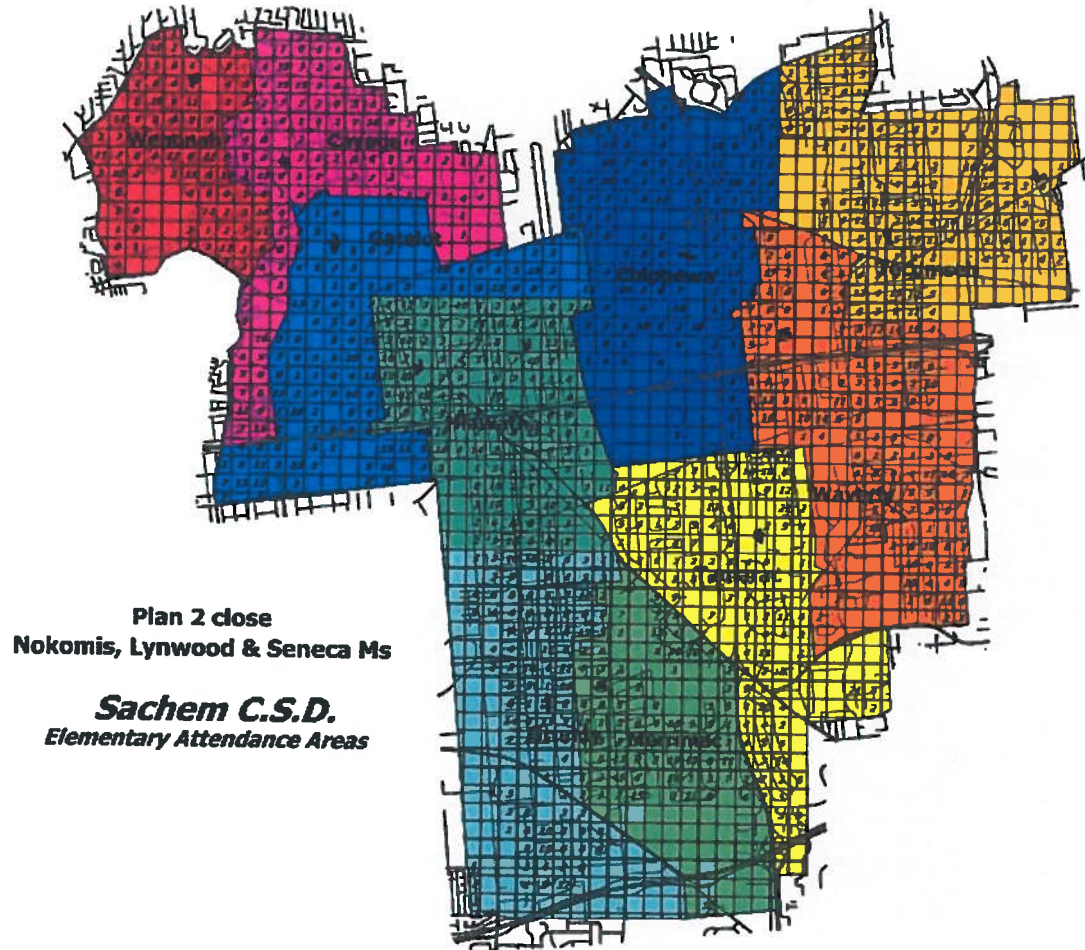




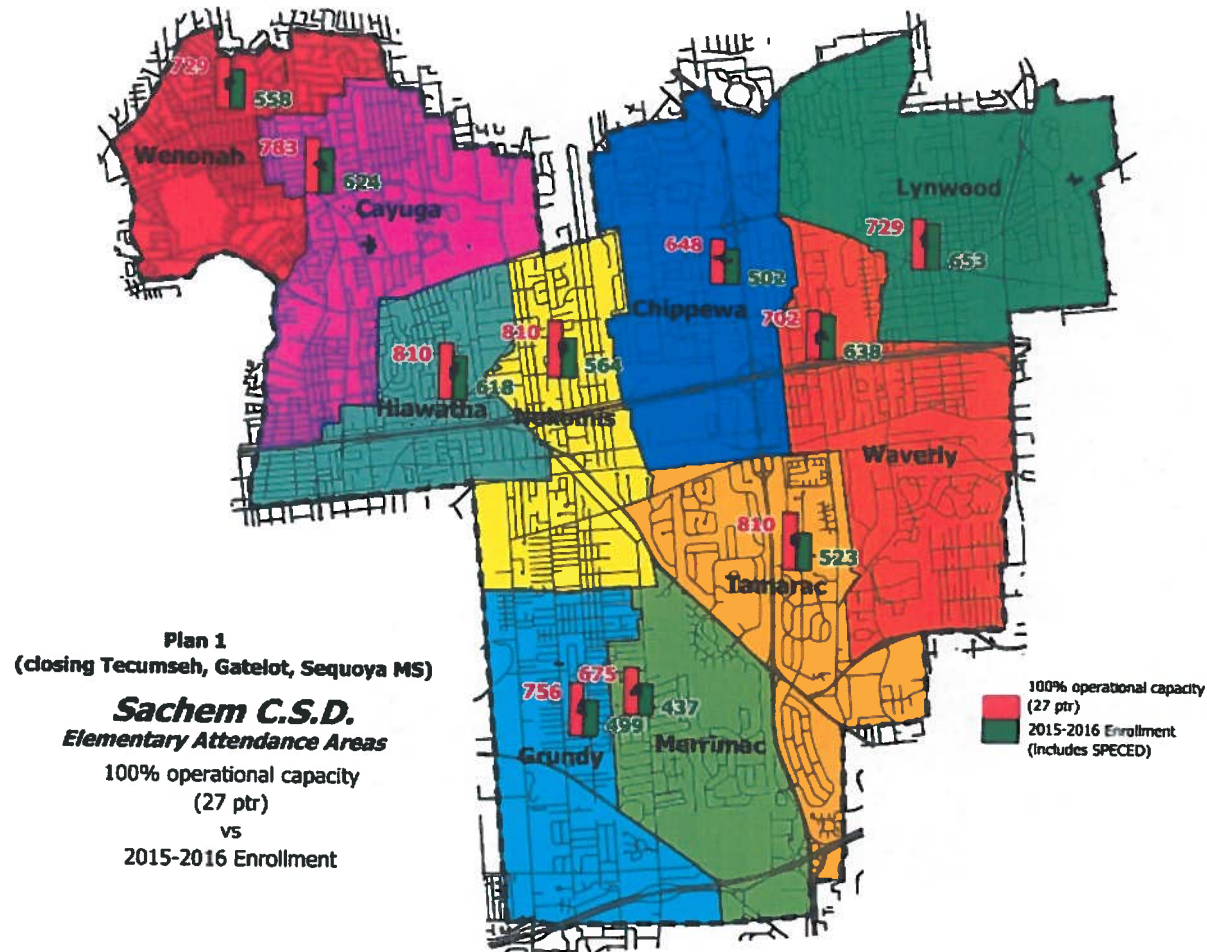
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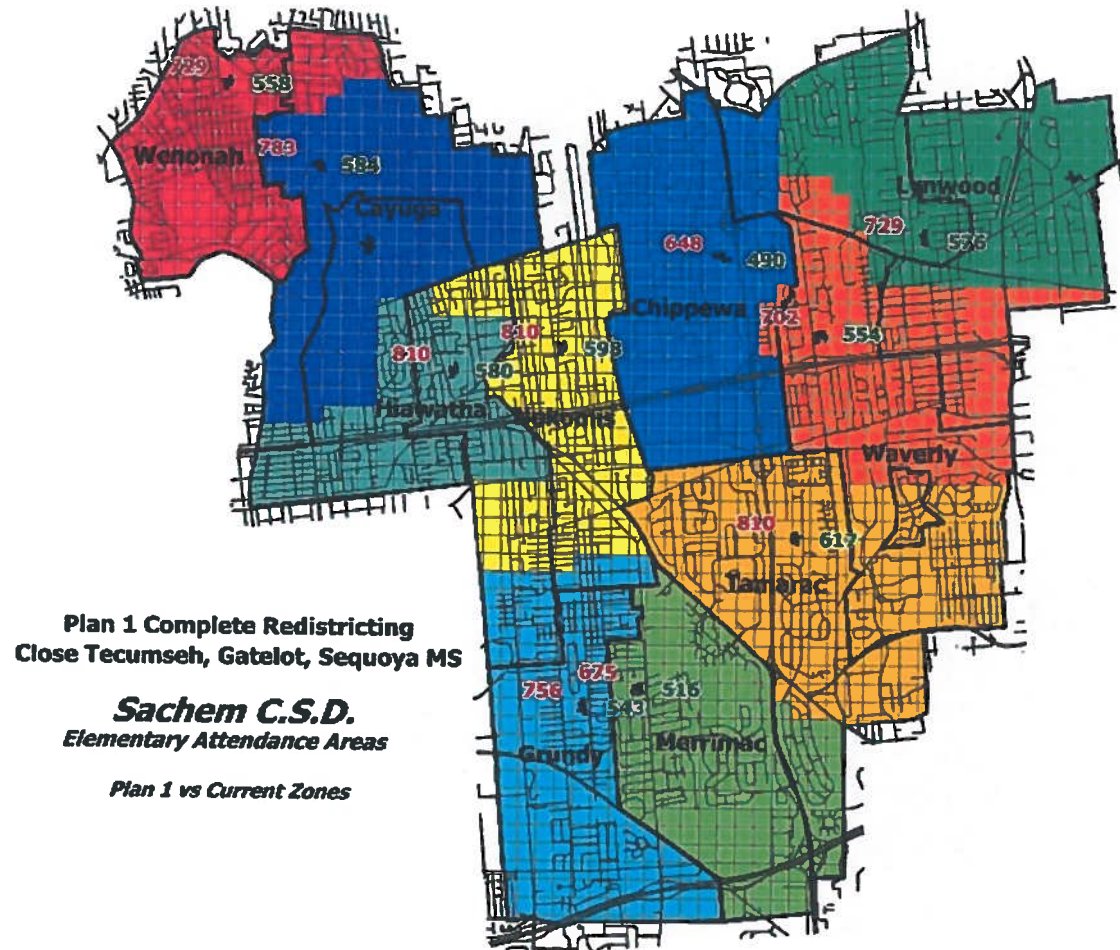


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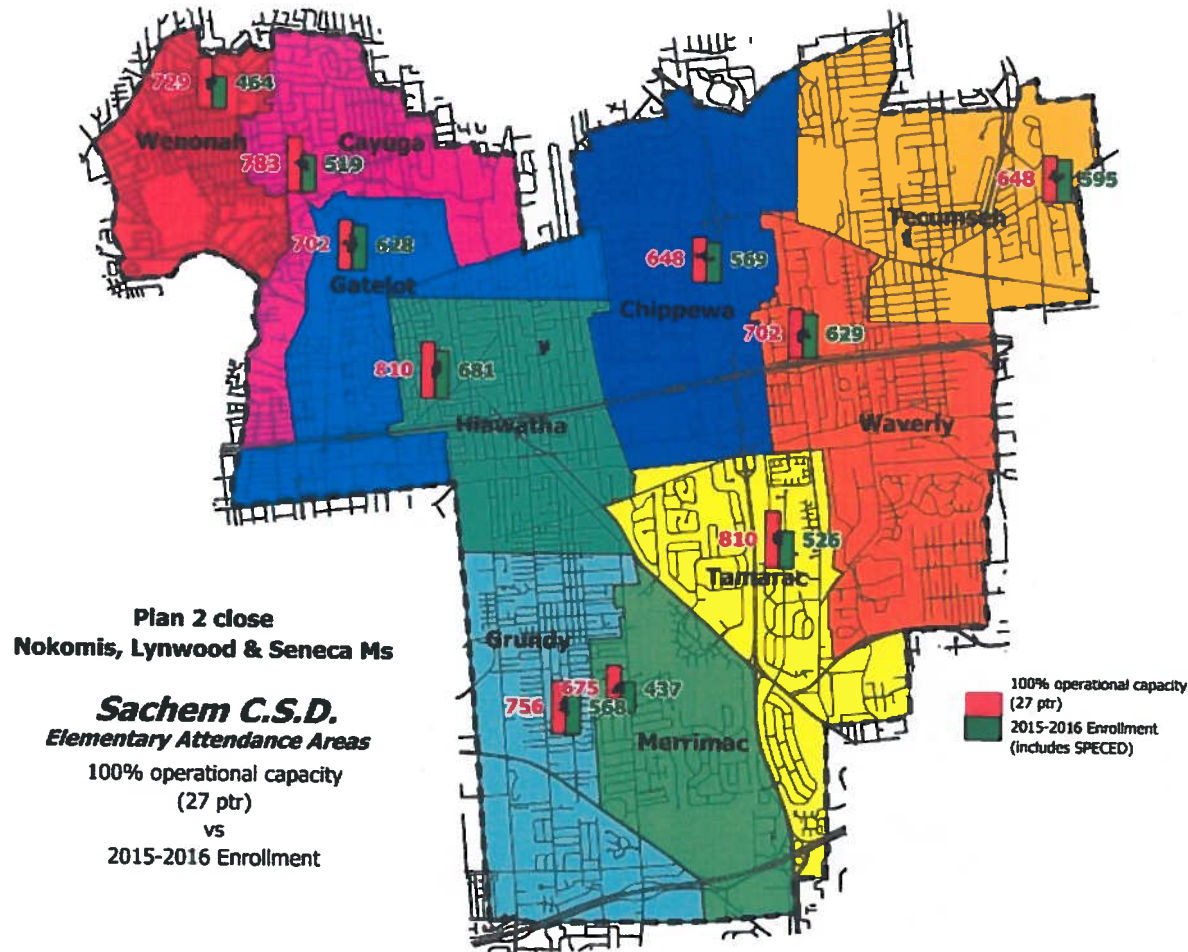




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