

ORANGE COUNTY, NC
SCHOOLS ADEQUATE PUBLIC
FACILITIES ORDINANCE

**PREPARED BY A STAFF COMMITTEE: PLANNING DIRECTORS,
SCHOOL REPRESENTATIVES, TECHNICAL ADVISORY COMMITTEE
(SAPFOTAC)**

**(PURSUANT TO PROVISIONS OF A MEMORANDUM OF
UNDERSTANDING ADOPTED IN 2002 & 2003)
(ORDINANCES ADOPTED IN JULY 2003)**

Annual Report
2024
(BASED ON NOVEMBER 2023 DATA)

CERTIFIED BY THE BOCC ON XXX, 2024

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2024 SAPFOTAC Executive Summary

I. Base Memorandum of Understanding

A. Level of Service(No Change).....Pg. 1

	<i>Chapel Hill/Carrboro School District</i>	<i>Orange County School District</i>
<i>Elementary</i>	105%	105%
<i>Middle</i>	107%	107%
<i>High</i>	110%	110%

B. Building Capacity and Membership(Change).....Pg. 2

	<i>Chapel Hill/Carrboro School District</i>			<i>Orange County School District</i>		
	Capacity	Membership	Change from Prior Year	Capacity	Membership	Change from Prior Year
<i>Elementary</i>	5664	4575	- 82	3361	3055	- 4
<i>Middle</i>	2944	2716	- 82	2166	1579	-19
<i>High</i>	3975	3974	+24	2939	2382	-105

C. Membership Date – November 15.....(No Change).....Pg. 18

II. Annual Update to SAPFO System

A. Capital Investment Plan (CIP)(No Change).....Pg. 19

B. Student Membership Projection Methodology(No Change).....Pg. 20 The average of 3, 5, and 10-year history/cohort survival, linear and arithmetic projection models.

C. Student Membership Projections(Change).....Pg. 30

Analysis of 5 Years of Projections for 202-2024 School Year – Chapel Hill/Carrboro City Schools

(The first column for each year includes the student membership projection made for 2023-2024 in that given year. The second column for each year includes the number of students the projection was off compared to actual membership. An “L” indicates the projection was low compared to the actual, whereas an “H” indicates the projection was high compared to the actual.)

		Year Projection Made for 2023-2024 Membership									
	Actual 2023 Membership	2018-2019		2019-2020		2020-2021		2021-2022		2022-2023	
Elementary	4575	5498	H923	5367	H792	4708	H133	4582	L7	4581	H6
Middle	2716	2943	H227	2992	H276	2830	H114	2742	H26	2710	L6
High	3974	4037	H63	4085	H111	3915	L59	3908	L66	3914	H60

Analysis of 5 Years of Projections for 2023-2024 School Year – Orange County Schools

(The first column for each year includes the student membership projection made for 2023-2024 in that given year. The second column for each year includes the number of students the projection was off compared to actual membership. An “L” indicates the projection was low compared to the actual, whereas an “H” indicates the projection was high compared to the actual.)

		Year Projection Made for 2023-2024 Membership									
	Actual 2023 Membership	2018-2019		2019-2020		2020-2021		2021-2022		2022-2023	
Elementary	3055	3321	H266	3320	H265	2994	L61	3000	L55	3063	H8
Middle	1579	1710	H131	1713	H134	1611	H32	1622	H43	1588	H9
High	2382	2426	H44	2433	H51	2367	L15	2508	H126	2446	H64

D. Student Membership Growth Rate(Change).....Pg. 37

Projected Average Annual Growth Rate Over Next 10 Years										
Chapel Hill/Carrboro School District						Orange County School District				
Year Projection Made:	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Elementary	0.65%	-0.23%	-0.88%	-0.47%	-1.14%	0.84%	-0.02%	-0.04%	0.26%	-0.14%
Middle	-0.07%	-1.50%	-2.10%	-1.77%	-1.96%	0.37%	-0.67%	-0.72%	-0.15%	-0.44%
High	0.03%	-1.44%	-2.15%	-2.09%	-1.83%	0.21%	-0.98%	-1.06%	0.98%	-0.91%

E. Student / Housing Generation Rate(No Change).....Pg. 40

SCHOOL ADEQUATE PUBLIC FACILITIES ORDINANCE STATUS

(Based on future year Student Membership Projections)

CHAPEL HILL/CARRBORO SCHOOL DISTRICT

Elementary School Level

- A. Does not currently exceed 105% LOS standard (current LOS is 80.8%).
- B. The projected growth rate at this level is expected to increase but remain negative over the next 10 years (average -1.14% per year compared to an average of -1.89% over the past 10 years).
- C. Projections are not showing a need for an additional Elementary School in the 10-year projection period.

Middle School Level

- A. Does not currently exceed 107% LOS standard (current LOS is 92.3%).
- B. The projected growth rate at this level is expected to decrease and remain negative over the next 10 years (average -1.96% compared to an average of -0.48% over the past 10 years).
- C. Projections are not showing a need for an additional Middle School in the 10-year projection period.

High School Level

- A. Does not currently exceed the 110% LOS standard (current LOS is 100.0%).
- B. The projected growth rate at this level is expected to decrease and be negative over the next 10 years (average -1.83% compared to +0.56% over the past 10 years).

- C. Projections are not showing a need to expand Carrboro High School from the initial capacity of 800 students to the ultimate capacity of 1,200 students in the 10-year projection period.

ORANGE COUNTY SCHOOL DISTRICT

Elementary School Level

- A. Does not currently exceed 105% LOS standard (current LOS is 90.9%).
- B. The projected growth rate at this level is expected to increase but remain negative over the next 10 years (average -0.14% compared to -1.13% over the past 10 years).
- C. Projections are not showing a need for an additional Elementary School in the 10-year projection period.

Middle School Level

- A. Does not currently exceed 107% LOS standard (current LOS is 72.9%).
- B. The projected growth rate at this level is expected to increase but remain negative over the next 10 years (average -0.44% compared to -0.98% over the past 10 years).
- C. Projections are not showing a need for an additional Middle School in the 10-year projection period.

High School Level

- A. Does not currently exceed 110% LOS standard (current LOS is 81.0%).
- B. The projected growth rate at this level is expected to decrease and remain negative over the next 10 years (average -0.91% compared to -0.13% over the past 10 years).
- C. Projections are not showing a need for additional High School in the 10-year projection period.

ADDITIONAL INFORMATION

Pre-K Students

In recent years, Pre-K enrollment has been a topic of discussion with both school districts. At this time, SAPFO has not been amended to include Pre-K in the membership and capacity numbers. However, Pre-K numbers and impacts continue to be monitored by the SAPFOTAC. Pre-K students for each district is as follows:

	Chapel Hill-Carrboro City Schools	Orange County Schools
School Year	Number of Students	Number of Students
2019-20	267	144
2020-21	208 (-59)	86 (-58)
2021-22	222 (+14)	125 (+39)
2022-23	295 (+73)	101 (-24)
2023-24	250 (-45)	91 (-10)

Charter and Private Schools

Currently, there are two Charter Schools located in the Town of Hillsborough. Charter student membership for these two schools is as follows:

	Eno River Academy	The Expedition School
School Year	Number of Students	Number of Students
2017-18	542	326
2018-19	655 (+113)	355 (+29)
2019-20	715 (+60)	365 (+10)
2020-21	747 (+32)	365*
2021-22	751 (+4)	
2022-23	777 (+26)	
2023-24	805 (+28)	362 (-3)
<i>*The Expedition School reached full capacity of 365 students in 2019-20</i>		

Charter and private schools are not included as part of the SAPFO Annual Report and, as a result, their membership and capacity numbers are not included in future projections. SAPFO projections are used for projecting only public school capacity/construction needs. However, the SAPFO Technical Advisory Committee does monitor charter and private schools and their effect on student enrollment in both school districts. If a charter or private school were to close and a spike were to be realized in school enrollment, the student projections would likely accelerate the need for additional capacity in future years, but likely still within an appropriate time for CIP planning. Charter Schools are also monitored by the Department of Public Instruction (DPI) which provides pupil information, based on data received from Charter Schools located in Orange County, to the County for funding purposes. The County budgeted for charter schools as follows:

	Chapel Hill-Carrboro City Schools	Orange County Schools
Fiscal Year	Number of Students	Number of Students
2017-18	162	617
2018-19	155 (-7)	769 (+152)
2019-20	169 (+14)	843 (+74)
2020-21	166 (-3)	885 (+42)
2021-22	156 (-10)	919 (+34)
2022-23	205 (+49)	951 (+32)
2023-24	210 (+5)	999 (+48)

Although charter and private schools numbers are not collected for SAPFO purposes, impacts due to enrollment at these schools are accounted for in SAPFO process with the annual reporting of student membership and growth rates contained in the 10-year student projections.

Future Residential Development

Proposed growth is not included in the SAPFO projection system until actual students begin enrollment. The Certificate of Adequate Public Schools (CAPS) test is conducted during the approval process at a certain stage. Once students are enrolled in a school year, through annual reporting of student membership numbers, 10-year student projections can be updated to display

future capacity needs in time to efficiently plan for future school capacity/construction requests. The SAPFOTAC continue to monitor and evaluate the demand and growth of residential development throughout Orange County as well as its effect on student membership rates. Below is a list of larger residential projects and the potential number of students from these projects which may have an impact in the short term. Please note, the City of Mebane is not a party to the SAPFO agreement and therefore does not require that CAPS (Certificate of Adequate Public Schools) be issued prior to development approvals. As a result, the expected number of students is based on unit type and bedroom count estimates.

Residential Project	Jurisdiction	Proposed Total Units Remaining	Expected Number of Students
Jade Creek	Carrboro	72	Elementary: 19 Middle: 13 High: 12
Weavers Grove	Chapel Hill	235	Elementary: 44 Middle: 18 High: 20
Park Apartments	Chapel Hill	283	Elementary: 19 Middle: 7 High: 9
Trinity Court Affordable Housing	Chapel Hill	54	Elementary: 7 Middle: 3 High: 4
Columbia Street Annex	Chapel Hill	59	Elementary: 9 Middle: 3 High: 3
101-111 Erwin Road	Chapel Hill	52	Elementary: 21 Middle: 10 High: 9
710 N Estes Townhomes	Chapel Hill	107	Elementary: 21 Middle: 10 High: 9
Stanat's Place	Chapel Hill	47	Elementary: 12 Middle: 4 High: 4
Aura Blue Hill	Chapel Hill	301	Elementary: 21 Middle: 8 High: 11
Calyx (Glen Lennox)	Chapel Hill	291	Elementary: 18 Middle: 6 High: 9
Collins Ridge Phase 1	Hillsborough	672	Elementary: 84 Middle: 45 High: 57

Residential Project	Jurisdiction	Proposed Total Units Remaining	Expected Number of Students
Persimmon at Cates Creek	Hillsborough	346	Elementary: 22 Middle: 11 High: 15
Stagecoach Corner	Mebane	35	Elementary: 9 Middle: 5 High: 6
Bowman Place	Mebane	67	Elementary: 15 Middle: 7 High: 8
The Townes of Oakwood Square	Mebane	58	Elementary: 3 Middle: 2 High: 3
Tupelo Junction I	Mebane	157	Elementary: 38 Middle: 19 High: 20
Tupelo Junction II	Mebane	207	Elementary: 56 Middle: 27 High: 35
Oakwood Subdivision	Mebane	409	Elementary: 110 Middle: 53 High: 70
11th Street Apartments	Mebane	48	Elementary: 10 Middle: 4 High: 5
Oak Grove Trails	Mebane	51	Elementary: 3 Middle: 2 High: 2
Meadows	Mebane	17	Elementary: 3 Middle: 2 High: 2
Meadowstone	Mebane	147	Elementary: 8 Middle: 5 High: 6
Edenvue	Orange County (OCS)	38	Elementary: 10 Middle: 5 High: 7

The SAPFOTAC also monitors projects that have not reached the stage of the development process when CAPS are issued. Therefore, student estimates are not yet available. The following is a list of projects for which rezoning has been approved:

Residential Project	Jurisdiction	Expected Number of Units
Newbury	Carrboro	38-44
South Green	Carrboro	63
Hillmont	Chapel Hill	500
Gateway	Chapel Hill	388
St Paul Village	Chapel Hill	350
Chapel Hill Crossing	Chapel Hill	290-344
101 E Rosemary St	Chapel Hill	150
South Creek	Chapel Hill	688-815
Jay St Affordable Housing	Chapel Hill	48
Homestead Road Tri-Point	Chapel Hill	119

School Renovation and Expansion

The Schools Adequate Public Facilities Ordinance (SAPFO) student projections illustrate when the adopted level of service capacities are forecasted to be met and/or exceeded in anticipation of Capital Improvement Plan (CIP) planning and the construction of a new school. Both school districts continue planning efforts to renovate and expand existing facilities to address school capacity needs in a more feasible way. Additional capacity resulting from school renovations and expansions will be added to the projection models in stages, once funding is approved, versus the addition of greater capacity when a new school is constructed and completed. The renovation and expansion to existing facilities may delay construction of new schools further into the future, depending on how and how much capacity is added to the system. Decisions on the timing of reconstruction (i.e. capacity additions) funding would be directly linked to the SAPFO model at the appropriate time.

2023 Woolpert Facilities Capital Needs Assessment and Operations Research and Education Laboratory (ORED) Student Projections

In 2023, Orange County contracted with Woolpert, Inc. to conduct a Facilities Capital Needs Assessment on all schools within both districts. Part of the assessment included calculating capacity at each school. At the Elementary level, two capacity calculations were completed: one that excluded space used by Pre-K programs and one that did not account for Pre-K usage. Woolpert, Inc. has presented its findings and discussions regarding the results are on-going. Also in 2023, each school district contracted with NC State's Operations Research and Education Laboratory (ORED) to complete a "Land Use Study" and student membership projections. ORED's projection model includes a forecasting component whereas the SAPFO model is mathematically based using historical data and accepted projection methodologies. Discussions regarding the results of the study are on-going.

Orange County, NC School Adequate Public Facilities Ordinance

Introduction

The Schools Adequate Public Facilities Ordinance (SAPFO) and its Memorandum of Understanding are ordinances and agreements, respectively. Supporting documents are anticipated to be dynamic to incorporate the annual changing conditions of membership, capacity and student projections that may affect School Capital Investment Plan (CIP) timing. This formal annual report will be forthcoming to all of the Schools Adequate Public Facilities Ordinance partners each year as new information is available.

This updated information is used in the schools capital needs process of the Capital Investment Plan (Process 1) and within elements of the Schools Adequate Public Facilities Ordinance Certificate of Adequate Public Schools (CAPS) spreadsheet system (Process 2).

This report and any comments from the Schools Adequate Public Facilities Ordinance partners will be considered in the first half of each year by the Board of County Commissioners at a regular or special meeting. The various elements of the report are then “certified” and formally considered in the process of the upcoming Capital Investment Plan. The Certificate of Adequate Public Schools system is updated after November 15 when data is received from the school districts with actual membership and pre-certified capacity (i.e. CIP capacity or prior “joint action” capacity changes).

The Schools Adequate Public Facilities Ordinance and Memorandum of Understanding have dynamic aspects. The derivation of the baseline and update to the variables will continue in the future as a variety of school related issues are fine-tuned by technical and policy groups.

The primary facet of this report includes the creation of mathematical projections for student memberships by school levels (Elementary, Middle and High) and by School Districts (Chapel Hill/Carrboro and Orange County). This information is found in Section II, Subsections B, C, D, and E.

In summary, this report serves as an update to the dynamic conditions of student membership and school capacity which affect future projected needs considered in Capital Investment Planning.

Interested parties may make their comments known to the Board of County Commissioners prior to their review of the report and school CIP completion or ask questions of the SAPFOTAC members.

Schools Adequate Public Facilities Ordinance Partners

Annual Report as Outlined in

Schools Adequate Public Facilities Ordinance Memorandum

of Understanding (SAPFO MOU)

Section 1d

Respectfully Submitted to Schools Adequate Public Facilities

Ordinance Partners

Chapel Hill-Carrboro City School District SAPFO	Orange County School District SAPFO
Board of County Commissioners	Board of County Commissioners
Carrboro Town Council	Hillsborough Board of Commissioners
Chapel Hill Town Council	
Chapel Hill-Carrboro School Board	Orange County School Board

**Planning Directors/School Representatives
Technical Advisory Committee
(aka SAPFOTAC)**

Town of Carrboro
Trish McGuire, Planning Director
301 West Main Street
Carrboro, NC 27510

Town of Chapel Hill
Britany Waddell, Planning Director
405 Martin Luther King, Jr. Blvd.
Chapel Hill, North Carolina 27514

Town of Hillsborough
Shannan Campbell, Planning and Economic Development Manager
P.O. Box 429
Hillsborough, NC 27278

Orange County
Cy Stober, Planning Director
Perdita Holtz, Deputy Planning Director, Long-Range Planning
Kirk Vaughn, Budget Director
131 W. Margaret Lane
P.O. Box 8181
Hillsborough, NC 27278

Orange County School District
Jim Merrill, Interim Superintendent
200 E. King Street
Hillsborough, NC 27278

Chapel Hill-Carrboro City School District
Nyah Hamlett, Superintendent
750 Merritt Mill Road
Chapel Hill, NC 2751

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I. Base Memorandum of Understanding**A. Level of Service**

1. **Responsible Entity for Suggesting Change** – Change can only be effectuated by amendment to Memorandum of Understanding (MOU) by all SAPFO partners.
2. **Definition** – Level of Service (LOS) means the amount (level) of students that can be accommodated (served) at a certain school system grade group [i.e., Elementary level (K-5), Middle Level (6-8), High School Level (9-12)].

3. Standard for:			Standard for:		
Chapel Hill-Carrboro City School District			Orange County School District		
Elementary	Middle	High School	Elementary	Middle	High School
105%	107%	110%	105%	107%	110%

4. **Analysis of Existing Conditions:**
- | Chapel Hill-Carrboro City School District | Orange County School District |
|--|--|
| These standards are acceptable at this time. | These standards are acceptable at this time. |

5. **Recommendation:**
- | Chapel Hill-Carrboro City School District | Orange County School District |
|--|--------------------------------------|
| No change from above standard. | No change from above standard. |

B. Building Capacity and Membership

1. **Responsible Entity for Suggesting Change** – The Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) will receive requested changes that are CIP related and adopted in the prior year. CIP capacity changes will be updated along with actual membership received in November of each year. Other changes will be sent to a ‘Joint Action Committee’ of the BOCC and Board of Education, as noted in the MOU, who will make recommendations and forward changes (on the specific forms with justification) to the full Board of County Commissioners for review and action. These non-CIP changes would be updated in the upcoming November CAPS system recalibration and included in the SAPFOTAC report.
2. **Definition** – For purposes of this Memorandum, "building capacity" will be determined by reference to State guidelines and the School District guidelines (consistent with CIP School Construction Guidelines/policies developed by the School District and the Board of County Commissioners) and will be determined by a joint action of the School Board and the Orange County Board of Commissioners. As used herein the term "building capacity" refers to permanent buildings. Mobile classrooms and other temporary student accommodating classroom spaces are not permanent buildings and may not be counted in determining the school districts building capacity.

3. **Standard for:**

Chapel Hill-Carrboro City School District

The original certified capacity for each of the schools was certified by the respective superintendent and incorporated in the initialization of the CAPS system (Chapel Hill-Carrboro School District April 29, 2002 - Base) Capacity changes were made each year as follows:

2003: Increase of 619 at Rashkis Elementary.
2004: No changes at Elementary, Middle, or High School levels.

Standard for:

Orange County School District

The original certified capacity for each of the schools was certified by the respective superintendent and incorporated in the initialization of the CAPS system (Orange County School District April 30, 2002 - Base) Capacity changes were made each year as follows:

2003: No net increase in capacity at Elementary level. No changes at Middle School level.
 Increase of 1,000 at Cedar Ridge High School.

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2005: No changes at Elementary, Middle, or High School levels.

2006: No changes at Elementary, Middle, or High School levels.

2007: An increase of 800 at the High School level with the opening of Carrboro High School.

2008: An increase of 323 at the Elementary School level due to the opening of Morris Grove Elementary School and the implementation of the 1:21 class size ratio in grades K-3

2009: No changes at Elementary, Middle, or High School levels.

2010: An increase in capacity of 40 students at the High School level with Phoenix Academy High School becoming official high school within the district

2011: No changes at Elementary, Middle, or High School levels.

2012: No changes at Elementary, Middle, or High School levels.

2013: An increase in capacity of 585 students due to the opening of Northside Elementary School.

2014: An increase in capacity of 104 students due to the opening of the Culbreth Middle School addition.

2015: No changes at Elementary, Middle, or High School levels.

2016: No changes at Elementary, Middle, or High School levels.

2004: No net increase in capacity at Elementary level. No changes at Middle or High School levels.

2005: An increase in capacity of 100 at Hillsborough Elementary with the completion of renovations.

2006: An increase in capacity of 700 at the Middle School level with the completion of Gravelly Hill Middle School and an increase of 15 at the High School level with the temporary location of Partnership Academy Alternative School. An increase of 2 at the Elementary level due to a change in the capacity calculation for each grade at each school.

2007: No changes at Elementary, Middle, or High School levels.

2008: A decrease of 228 at the Elementary School level due to the implementation of the 1:21 class size ratio in grades K-3 and an increase of 25 at the High School level with the completion of the new Partnership Academy Alternative School.

2009: No changes at Elementary, Middle, or High School levels.

2010: No changes at Elementary, Middle, or High School levels.

2011: No changes at Elementary, Middle, or High School levels.

2012: No changes at Elementary or Middle School levels. A decrease of 119 at High School level as a result of a N.C. Department of Public Instruction (DPI) study.

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2017: A decrease in capacity of 165 students due to the implementation of the 1:20 class size ratio in grades K-3.

2018: No changes at Elementary, Middle or High School levels.

2019: No changes at Elementary, Middle, or High School levels.

2020: Increase of 100 seats at the High School level due to renovations at Chapel Hill High School. No changes at Elementary or Middle School levels.

2021: No changes at Elementary, Middle, or High School levels.

2022: No changes at Elementary, Middle, or High School levels.

2023: No changes at Elementary, Middle, or High School levels.

2013: No changes at Elementary, Middle, or High School levels.

2014: No changes at Elementary, Middle, or High School levels.

2015: No changes at Elementary, Middle, or High School levels.

2016: No changes at Elementary, Middle, or High School levels.

2017: A decrease in capacity of 333 students due to the implementation of the 1:20 class size ratio in grades K-3.

2018: No changes at Elementary, Middle, or High School levels.

2019: No changes at Elementary, Middle, or High School levels.

2020: No changes at the Elementary, Middle, or High School levels.

2021: Increase of 500 seats at the High School level due to the Cedar Ridge High School addition. No changes at Elementary or Middle School levels.

2022: No changes at Elementary, Middle, or High School levels.

2023: No changes at Elementary, Middle, or High School levels.

4. Analysis of Existing Conditions:

Chapel Hill-Carrboro City School District

The Schools Facilities Task Force developed a system to calculate capacity. Any changes year to year will be monitored, reviewed, and

Analysis of Existing Conditions:

Orange County School District

The Schools Facilities Task Force developed a system to calculate capacity. Any changes year to year will be monitored, reviewed, and recorded by

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recorded by the SAPFOTAC on approved forms distributed to SAPFO partners and certified upon approval by the Board of County Commissioners each year. The requested 2023-2024 capacity is noted on Attachment I.B.4

5. Recommendation:**Chapel Hill-Carrboro City School District**

Accept school capacities at all levels, as reported by CHCCS and shown in Attachment I.B.4.

the SAPFOTAC on approved forms distributed to SAPFO partners and certified upon approval by the Board of County Commissioners each year. The requested 2023-2024 capacity is noted on Attachment I.B.3

Recommendation:**Orange County School District**

Accept school capacities at all levels, as reported by OCS and shown in Attachment I.B.3.

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Attachment I.B.1 Orange County School Capacity (Elementary, Middle, & High)

(2022-23)

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Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and Change Request Form

School District: Orange County Schools

SAPFO CAPS Year: November 15, 2022 - November 14, 2023

Capacity and Membership Submittal Date: November 15, 2022

Elementary School	Square Feet	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
River Park	70,812	565	565	502	502	502		561	111.8%
Central	52,492	455	455	428	428	428		296	69.2%
Efland Cheeks	64,316	497	497	455	455	455		522	114.7%
Grady Brown	74,016	544	544	490	490	490		415	84.7%
Hillsborough	51,106	471	471	420	420	420		428	101.9%
New Hope	100,164	586	586	526	526	526		528	100.4%
Pathways	85,282	576	576	540	540	540		309	57.2%
Total	498,188	3,694	3,694	3,361	3,361	3,361		3,059	91.0%

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:**Capacity and Membership Certification:**

Monique Felder
Monique Felder (Nov 23, 2022 09:11 EST)

Nov 23, 2022

Superintendent

Date

James H. R. Bedford
 BOCC Chair

Date

Section I

Attachment I.B.1 Orange County School Capacity (Elementary, Middle, & High)
 (2022-23)
 (Page 2 of 3)

**Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and
Change Request Form**

School District: Orange County Schools

SAPFO CAPS Year: November 15, 2022 - November 14, 2023

Capacity and Membership Submittal Date: November 15, 2022

Middle School	Square Feet	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
A.L. Stanback	136,000	740	740	740	740	740		644	87.0%
Orange Middle	107,620	726	726	726	726	726		524	72.2%
Gravelly Hill	123,000	700	700	700	700	700		430	61.4%
Total	366,620	2,166	2,166	2,166	2,166	2,166		1,598	73.8%

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:

Capacity and Membership Certification:

Monique Felder
Monique Felder (Nov 23, 2022 09:11 EST)

Superintendent

Nov 23, 2022

Date

Janeth R. Bedford
 BOCC Chair

Date

Section I

Attachment I.B.1 Orange County School Capacity (Elementary, Middle, & High)

(2022-23)

(Page 3 of 3)

Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and Change Request Form

School District: Orange County Schools

SAPFO CAPS Year: November 15, 2022 - November 14, 2023

Capacity and Membership Submittal Date: November 15, 2022

High School	Square Feet	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Cedar Ridge	256,900	1,000	1,000	1,000	1,500	1,500	*	1,111	74.1%
Orange	213,509	1,399	1,399	1,399	1,399	1,399		1,342	95.9%
Partnership	6,600	40	40	40	40	40		34	85.0%
Total	477,009	2,439	2,439	2,439	2,939	2,939		2,487	84.6%

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification: 2021-22 addition to Cedar Ridge added 50,000 square feet and 500 seats.

Capacity and Membership Certification:
Monique Felder
Monique Felder (Nov 23, 2022 03:11 EST)

Nov 23, 2022

Superintendent

Date

James R. Bedford
 BOCC Chair

Date

Section 1 Attachment I.B.2 Chapel Hill-Carrboro City School Capacity (Elementary, Middle, & High)
(2022-23)
(Page 1 of 3)

Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools

SAPFO CAPS Year: November 15, 2022 - November 14, 2023

Capacity and Membership Submittal Date: November 15, 2022

Elementary School	Square Feet	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Carrboro	60,832	533	518	518	518	518		484	93.4%
Ephesus	66,952	448	436	436	436	436		355	81.4%
Estes Hills	56,299	527	516	516	516	516		332	64.3%
FP Graham	66,689	538	522	522	522	522		513	98.3%
Glenwood	50,764	423	412	412	412	412		430	104.4%
McDougle	98,000	564	548	548	548	548		474	86.5%
Morris Grove	90,221	585	568	568	568	568		427	75.2%
Northside	99,500	585	568	568	568	568		373	65.7%
Rashkis	95,729	585	568	568	568	568		421	74.1%
Scroggs	90,980	575	558	558	558	558		379	67.9%
Seawell	52,896	466	450	450	450	450		469	104.2%
Total	828,862	5,829	5,664	5,664	5,664	5,664		4,657	82.2%

Special Note(s): 1 For the November 15, 2002 base year the Board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:

Capacity and Membership Certification:

 11/8/22
Superintendent Date


BOCC Chair Date

Section I Attachment I.B.2 Chapel Hill-Carrboro City School Capacity (Elementary, Middle, & High)
(2022-23)
(Page 2 of 3)

Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools

SAPFO CAPS Year: November 15, 2022 - November 14, 2023

Capacity and Membership Submittal Date: November 15, 2022

Middle School	Square Feet	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Culbreth	122,467	774	774	774	774	774		658	85%
McDougle	136,221	732	732	732	732	732		756	103%
Phillips	109,498	706	706	706	706	706		614	87%
Smith	128,764	732	732	732	732	732		770	105%
Total	496,950	2,944	2,944	2,944	2,944	2,944		2,798	95.0%

Special Note(s): 1. For the November 15, 2002 base year the Board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:

Capacity and Membership Certification:

 11/18/22
Superintendent Date


BOCC Chair Date

Section I Attachment I.B.2 Chapel Hill-Carrboro City School Capacity (Elementary, Middle, & High)
(2022-23)
(Page 3 of 3)

Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools

SAPFO CAPS Year: November 15, 2022 - November 14, 2023

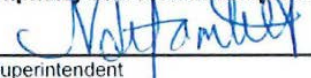
Capacity and Membership Submittal Date: November 15, 2022

High School	Square Feet	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Carrboro	148,023	800	800	800	800	800		864	108%
Chapel Hill	241,111	1,520	1,520	1,620	1,620	1,620		1,601	99%
East Chapel Hill	259,869	1,515	1,515	1,515	1,515	1,515		1,446	95%
Phoenix Acad.	5,207	40	40	40	40	40		39	98%
Total	654,210	3,875	3,875	3,975	3,975	3,975		3,950	99.4%

Special Note(s): 1. For the November 15, 2002 base year the Board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:

Capacity and Membership Certification:

 11/18/22
Superintendent Date


BOCC Chair Date

Section II

Attachment I.B.3 Orange County School Capacity (Elementary, Middle, & High)
 (2023-24)
 (Page 1 of 3)

O I H E K - 2023-077; 8-9; 12/4/23

Attachment 1

**Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and
Change Request Form**

School District: Orange County Schools

SAPFO CAPS Year: November 15, 2023 - November 14, 2024

Capacity and Membership Submittal Date: November 15, 2023

Elementary School	Square Feet	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	2023-2024 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Central	52,492	455	428	428	428	428		291	68.0%
Efland Cheeks	64,316	497	455	455	455	455		526	115.6%
Grady Brown	74,016	544	490	490	490	490		406	82.9%
Hillsborough	51,106	471	420	420	420	420		437	104.0%
New Hope	100,164	586	526	526	526	526		527	100.2%
Pathways	85,282	576	540	540	540	540		312	57.8%
River Park	70,812	565	502	502	502	502		556	110.8%
Total	498,188	3,694	3,361	3,361	3,361	3,361		3,055	90.9%

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:

Capacity and Membership Certification:

 11/27/23
 Superintendent Date

 12/4/23
 BOCC Chair Date

Section II

Attachment I.B.3 Orange County School Capacity (Elementary, Middle, & High)
 (2023-24)
 (Page 2 of 3)

Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and Change Request Form

School District: Orange County Schools

SAPFO CAPS Year: November 15, 2023 - November 14, 2024

Capacity and Membership Submittal Date: November 15, 2023

Middle School	Square Feet	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	2023-2024 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
A.L. Stanback	136,000	740	740	740	740	740		633	85.5%
Orange Middle	107,620	726	726	726	726	726		535	73.7%
Gravelly Hill	123,000	700	700	700	700	700		411	58.7%
Total	366,620	2,166	2,166	2,166	2,166	2,166		1,579	72.9%

Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:

Capacity and Membership Certification:

 11/27/23
 Superintendent Date


 BOCC Chair Date

Section II

Attachment I.B.3 Orange County School Capacity (Elementary, Middle, & High)
 (2023-24)
 (Page 3 of 3)

01#11-2023-071, 8-g; 12/4/23

Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and Change Request Form									
School District: Orange County Schools									
SAPFO CAPS Year: November 15, 2023 - November 14, 2024									
Capacity and Membership Submittal Date: November 15, 2023									
High School	Square Feet	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	2023-2024 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Cedar Ridge	206,900	1,000	1,000	1,500	1,500	1,500		1,117	74.5%
Orange	213,509	1,399	1,399	1,399	1,399	1,399		1,222	87.3%
Partnership	6,600	40	40	40	40	40		43	107.5%
Total	427,009	2,439	2,439	2,939	2,939	2,939		2,382	81.0%
Special Note(s): 1. For the November 15, 2002 base year the board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.									
Justification: 									

Capacity and Membership Certification:

 11/27/23
 Superintendent Date

 12/4/23
 BOCC Chair Date

Section II

Attachment I.B.4 Chapel Hill-Carrboro City School Capacity (Elementary, Middle, & High)
 (2023-24)
 (Page 1 of 3)

OTHER 2023-078; 8-g;
 12/4/23

**Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and
 Change Request Form**

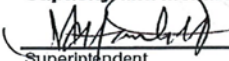
School District: Chapel Hill-Carrboro City Schools
 SAPFO CAPS Year: November 15, 2023 - November 14, 2024
 Capacity and Membership Submittal Date: November 15, 2023

Elementary School	Square Feet	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	2023-2024 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Carrboro	60,832	518	518	518	518	518		488	94.2%
Ephesus	66,952	436	436	436	436	436		355	81.4%
Estes Hills	56,299	516	516	516	516	516		339	65.7%
FP Graham	66,689	522	522	522	522	522		509	97.5%
Glenwood	50,764	412	412	412	412	412		411	99.8%
McDougle	98,000	548	548	548	548	548		466	85.0%
Morris Grove	90,221	568	568	568	568	568		397	69.9%
Northside	99,500	568	568	568	568	568		373	65.7%
Rashkis	95,729	568	568	568	568	568		425	74.8%
Scroggs	90,980	558	558	558	558	558		382	68.5%
Seawell	52,896	450	450	450	450	450		430	95.6%
Total	828,862	5,664	5,664	5,664	5,664	5,664		4,575	80.8%

Special Note(s): 1. For the November 15, 2002 base year the Board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:

Capacity and Membership Certification:

 11/16/23
 Superintendent Date

 12/4/23
 BOCC Chair Date

Section II

Attachment I.B.4 Chapel Hill-Carrboro City School Capacity (Elementary, Middle, & High)
 (2023-24)
 (Page 2 of 3)

Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and Change Request Form									
School District: Chapel Hill-Carrboro City Schools									
SAPFO CAPS Year: November 15, 2023 - November 14, 2024									
Capacity and Membership Submittal Date: November 15, 2023									
Middle School	Square Feet	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	2023-2024 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Culbreth	122,467	774	774	774	774	774		674	87%
McDougle	136,221	732	732	732	732	732		708	97%
Phillips	109,498	706	706	706	706	706		583	83%
Smith	128,764	732	732	732	732	732		751	103%
Total	496,950	2,944	2,944	2,944	2,944	2,944		2,716	92.3%
Special Note(s): 1. For the November 15, 2002 base year the Board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.									
Justification: 									

Capacity and Membership Certification:




Superintendent

Date

BOCC Chair

Date

Section II

Attachment I.B.4 Chapel Hill-Carrboro City School Capacity (Elementary, Middle, & High)
 (2023-24)
 (Page 3 of 3)

CTHEK-2023-018; 8-g; 12/4/23

**Schools Adequate Public Facilities Ordinance (SAPFO) Capacity, Membership and
Change Request Form**

School District: Chapel Hill-Carrboro City Schools

SAPFO CAPS Year: November 15, 2023 - November 14, 2024

Capacity and Membership Submittal Date: November 15, 2023


High School	Square Feet	2019-2020 Requested Capacity	2020-2021 Requested Capacity	2021-2022 Requested Capacity	2022-2023 Requested Capacity	2023-2024 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Carrboro	148,023	800	800	800	800	800		885	111%
Chapel Hill	241,111	1,520	1,520	1,620	1,620	1,620		1,642	101%
East Chapel Hill	259,869	1,515	1,515	1,515	1,515	1,515		1,412	93%
Phoenix Acad.	5,207	40	40	40	40	40		35	88%
Total	654,210	3,875	3,875	3,975	3,975	3,975		3,974	100.0%

Special Note(s): 1. For the November 15, 2002 base year the Board accepted the superintendent-certified capacities as part of the School Facilities Task Force review and 2003 Planners and School Representative Technical Advisory Committee Report. These capacities will remain effective until changed by (1) the School CIP or (2) an amended version of this form that is certified by the BOCC.

Justification:

Capacity and Membership Certification:

 11/16/23
 Superintendent Date

 12/4/23
 BOCC Chair Date

Section II

C. Membership Date

1. ***Responsible Entity for Suggesting Change*** – Change can be effectuated only by amendment to Memorandum of Understanding (MOU) by all SAPFO partners. The Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) may advise if a change in date would improve the reporting or timeliness of the report.
2. ***Definition*** – The date at which student membership is calculated. This date is updated each year and also serves as the basis for projections along with the history from previous years. “For purposes of this Memorandum, the term "school membership" means the actual number of students attending school as of November 15 of each year. The figure is determined by considering the number of students enrolled (i.e. registered, regardless of whether a student is no longer attending school) and making adjustments for withdrawals, dropouts, deaths, retentions and promotions. Students who are merely absent from class on the date membership is determined as a result of sickness or some other temporary reason are included in school membership figures. Each year the School District shall transmit its school membership to the parties to this agreement no later than five (5) school days after November 15.
3. ***Standard for:***

Chapel Hill-Carrboro City School District November 15 of each year	Standard for: Orange County School District November 15 of each year
--	--
4. ***Analysis of Existing Conditions:***
This can be analyzed in the future years to determine if it is an exemplary date.
5. ***Recommendation:***

Chapel Hill-Carrboro City School District No change at this time.	Recommendation: Orange County School District No change at this time.
---	---

II. Annual Update to Schools Adequate Public Facilities Ordinance System

A. Capital Investment Plan (CIP)

1. ***Responsible Entity for Suggesting Change*** – The updating of this section will be conducted by the Board of County Commissioners (BOCC) after review of the CIP requests from the School Districts. Action regarding CIP programs usually occurs during the BOCC budget Public Hearing process in the winter and spring of each year. The development of the CIP considers the conditions noted in the SAPFOTAC report released in the same CIP development year including LOS (level of service), capacity, and membership projections.
2. ***Definition*** – The process and resultant program to determine school needs and provide funding for new school facilities through a variety of funding mechanisms.
3. ***Standard for:***

Chapel Hill-Carrboro City School District	Orange County School District
Not Applicable	Not Applicable
4. ***Analysis of Existing Conditions:***
 The MOU outlines a system of implementing the SAPFO, including issuing Certificates of Adequate Public Schools (CAPS) to new development if capacity is available. The Requests for CAPS will be evaluated using the most recently adopted Capital Investment Plan. A new Capital Investment Plan is currently under development for approval prior to June 30, 2024.
5. ***Recommendation:***
 Not subject to staff review

Section II

B. Student Membership Projection Methodology

1. ***Responsible Entity for Suggesting Change*** – This section is reviewed and recommended by the Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) to the BOCC for change, if necessary.
2. ***Definition*** – The method(s) by which student memberships are calculated for future years to determine total membership at each combined school level (Elementary, Middle, and High School) which take into consideration historical membership totals at a specific time (November 15) in the school year. These methods are also known as ‘models’.

3. ***Standard for:***

Chapel Hill-Carrboro City School District
Standard for:
Orange County School District

Presently, the average of five models is being used: namely 3, 5, and 10-year history/cohort survival methods, Orange County Planning Department Linear Wave, and Tischler Linear methods. Attachment II.B.1 includes a description of each model.

4. ***Analysis of Existing Conditions:***

Performance of the models is monitored each year. The value of a projection model is in its prediction of school level capacities at least three years in advance of capacity shortfalls so the annual Capital Investment Plan (CIP) updates can respond proactively with siting, design, and construction. Attachment II.B.1 includes a description of each model. Attachment II.B.3 shows the performance of the models for the 2023-24 school year from the prior year projection.

5. ***Recommendation:***

Analysis on the accuracy of the results is showing fairly accurate results, particularly for the average of all five models/ Orange County Schools has lower enrollment numbers than 10 years ago at all three school levels (Elementary, Middle, and High). Chapel Hill-Carrboro City Schools has lower enrollment numbers than 10 years ago at the Elementary and Middle levels while the High School level has experienced enrollment growth over the past 10 years. The historic growth rate is recorded by the models, but projected future growth is more difficult to accurately quantify. In all areas of the county, proposed growth is not included in the SAPFO projection system until actual students are enrolled. The system is updated in November of each year, becoming part of the historical projection base.

Section II

Attachment II.B.I – Student Membership Projection Descriptions

STUDENT MEMBERSHIP PROJECTIONS

PROJECTION TYPE	DESCRIPTION / CHARACTERISTICS	FORMULA	ASSUMPTIONS
Tischler Linear (OCS & CHCCS)	Mathematical formula, straight line projection	$y = ((c^x) * b^x) + b$ y=projected population; c=historical annual change; b=base year; x= projection years	Historical growth is reflected in projected growth
OCP Linear Wave (OCS)	Mathematical linear with percent variation among school levels; reflects progressing waves of membership	$BYM + (BYI + 5(n)) = EYM$ $EYM * \%SL = EYM/SL$ BYM= base year 2nd month membership; BYI=year student membership increment base; EYM=ensuing year membership; n=projection year; %SL=% of total membership per school level (i.e. elementary, middle, high); EYM/SL=ensuing year member by school level	Base year growth reflects 10-year average; increase in BYI of 5 every other year reflects increases in housing growth; reflects buildout constraints
OCP Linear Wave (CHCCS)	Mathematical linear with percent variation among school levels; reflects progressing waves of membership	$BYM + (BYI - 15(n)) = EYM$ $EYM * \%SL = EYM/SL$ BYM= base year 2nd month membership; BYI=year student membership increment base; EYM=ensuing year membership; n=projection year; %SL=% of total membership per school level (i.e. elementary, middle, high); EYM/SL=ensuing year member by school level	Base year growth reflects 10-year average; decrease in BYI of 15 until school year 2010-2011 reflects decreases in housing growth; reflects buildout constraints
3-Year Cohort (OCS & CHCCS)	Mathematical formula that computes the average advancement rate over the previous 3 years for each grade level and then uses each rate to calculate projected membership by school level; an assumed kindergarten membership is based on birth records and/or historical growth rates	$K_n = K_{n-1} + (K_{n-1} * 0.01)$ n=1 $a = (\sum G_n / g_{n-1}) / 3$ n=3 $b = g_{n-1} (a)$ K=kindergarten membership; n=given school year; G=given grade's membership(other than kindergarten); g= previous grade's membership; a=average advancement rate; b=projected membership	Assumes a 1% annual growth rate for the kindergarten grade level; assumes the same percentage of students in each grade level graduate to the next level each year
5 year Cohort (OCS & CHCCS)	Mathematical formula that computes the average advancement rate over the previous 5 years for each grade level and then uses each rate to calculate projected membership by school level; an assumed kindergarten membership is based on birth records and/or historical growth rates	$K_n = K_{n-1} + (K_{n-1} * 0.01)$ n=1 $a = (\sum G_n / g_{n-1}) / 5$ n=5 $b = g_{n-1} (a)$ K=kindergarten membership; n=given school year; G=given grade's membership(other than kindergarten); g= previous grade's membership; a=average advancement rate; b=projected membership	Assumes a 1% annual growth rate for the kindergarten grade level; assumes the same percentage of students in each grade level graduate to the next level each year
10 year Cohort (OCS & CHCCS)	Mathematical formula that computes the average advancement rate over the previous 10 years for each grade level and then uses each rate to calculate projected membership by school level; an assumed kindergarten membership is based on birth records and/or historical growth rates	$K_n = K_{n-1} + (K_{n-1} * 0.01)$ n=1 $a = (\sum G_n / g_{n-1}) / 10$ n=10 $b = g_{n-1} (a)$ K=kindergarten membership; n=given school year; G=given grade's membership(other than kindergarten); g= previous grade's membership; a=average advancement rate; b=projected membership	Assumes a 1% annual growth rate for the kindergarten grade level; assumes the same percentage of students in each grade level graduate to the next level each year

Section II Attachment II.B.2 – Student Membership Projection Models Performance Analysis (2022-23)

(Page 1 of 4)

Orange County School District
School Membership 2022-2023 School Year (November 15, 2022)

	11/15/21 Actual 2021-22	2022 Report Projection for 2022-23	11/15/22 Actual 2022-23	Change between actual Nov 2021 - Nov 2022
Elementary	3023		3059	+ 36
Model			Projection is	
T		3012	L47	
OCP		3015	L44	
10C		2997	L62	
5C		2995	L64	
3C		2983	L76	
Average		3000	L59	
	11/15/21		11/15/22	
Middle	1656		1598	- 58
Model			Projection is	
T		1650	H52	
OCP		1652	H54	
10C		1613	H15	
5C		1598	0	
3C		1597	L1	
Average		1622	H24	
	11/15/21		11/15/22	
High	2472		2487	+15
Model			Projection is	
T		2436	L51	
OCP		2469	L18	
10C		2526	H39	
5C		2527	H40	
3C		2554	H67	
Average		2508	H21	
Totals	11/15/21		11/15/22	
Elementary	3023		3059	
Middle	1656		1598	
High	<u>2472</u>		<u>2487</u>	
Total	7151		7144	-7
Model			Projection is	
T		7098	L46	
OCP		7136	L8	
10C		7136	L8	
5C		7120	L24	
3C		7134	L10	
Average		7130	L14	

H means High
L means Low

**Orange County School District
School Membership 2022-2023 School Year (November 15, 2022)**

Statistical Findings

<i>PROJECTION TYPE ABBREVIATIONS</i>	
'TISCHLER' LINEAR (T)	10-YEAR COHORT (10C)
ORANGE COUNTY PLANNING (OCP)	5-YEAR COHORT (5C)
	3-YEAR COHORT (3C)

Elementary School Level

- Projections were low, ranging from 44 students to 76 students below actual membership. On average, the projections were 59 students below actual membership.
- The membership actually increased by 36 students between November 15, 2021 and November 14, 2022.

Middle School Level

- Projections were mixed, ranging from 1 student below to 54 students above actual membership. On average, the projections were 24 students above actual membership.
- The membership actually decreased by 58 students between November 15, 2021 and November 14, 2022.

High School Level

- Projections were mixed, ranging from 51 students below to 67 students above actual membership. On average, the projections were 21 students above actual membership.
- The membership actually increased by 15 students between November 15, 2021 and November 14, 2022.

TOTAL

- The totals of all school level projections were all low, ranging from 8 to 46 students below actual membership. On average, the projections were 14 students below actual membership.
- The membership decreased in total by 7 students, which is the sum of +36 at Elementary, -58 at Middle, and +15 at High.

Section II Attachment II.B.2 – Student Membership Projection Models Performance Analysis (2022-23)

(Page 3 of 4)

Chapel Hill-Carrboro City School District
School Membership 2022-2023 School Year (November 15, 2022)

	11/15/21 Actual 2021-22	2022 Report Projection for 2022-23	11/15/22 Actual 2022-23	Change between actual Nov 2021 - Nov 2022
Elementary	4738		4657	- 81
Model			Projection is	
T		4710	H53	
OCP		4619	L38	
10C		4557	L100	
5C		4526	L131	
3C		4496	L161	
Average		4582	L75	
	11/15/21		11/15/22	
Middle	2802		2798	- 4
Model			Projection is	
T		2786	L12	
OCP		2753	L45	
10C		2736	L62	
5C		2729	L69	
3C		2709	L89	
Average		2742	L56	
	11/15/21		11/15/22	
High	3940		3950	+ 10
Model			Projection is	
T		3917	L33	
OCP		3840	L110	
10C		3918	L32	
5C		3940	L10	
3C		3924	L26	
Average		3908	L42	
Totals	11/15/21		11/15/22	
Elementary	4738		4657	
Middle	2802		2798	
High	<u>3940</u>		<u>3950</u>	
Total	11,480		11,405	- 75
Model			Projection is	
T		11,413	H8	
OCP		11,212	L193	
10C		11,211	L194	
5C		11,195	L210	
3C		11,129	L276	
Average		11,232	L173	

H means High
L means Low

**Chapel Hill-Carrboro City School District
School Membership 2022-2023 School Year (November 15, 2022)**

Statistical Findings

<i>PROJECTION TYPE ABBREVIATIONS</i>	
'TISCHLER' LINEAR (T)	10-YEAR COHORT (10C)
ORANGE COUNTY PLANNING (OCP)	5-YEAR COHORT (5C)
	3-YEAR COHORT (3C)

Elementary School Level

- Projections were mixed ranging from 161 students below to 53 students above actual membership. On average, the projections were 75 students below the actual membership.
- The actual membership decreased by 81 students between November 15, 2021 and November 14, 2022.

Middle School Level

- Projections were low, ranging from 12 students to 89 students above below membership. On average, the projections were 56 students below the actual membership.
- The actual membership decreased by 4 students between November 15, 2021 and November 14, 2022.

High School Level

- Projections were low, ranging from 10 students to 110 students below actual membership. On average, the projections were 42 students below actual membership.
- The actual membership increased by 10 students between November 15, 2021 and November 14, 2022.

TOTAL

- The totals of all school level projections were mixed, ranging from 276 students below to 8 students above actual membership. On average, the projections were 173 students below the actual membership.
- The membership decreased in total by 75 students, which is the sum of -81 at Elementary, -4 at Middle, and +10 at High.

Section II

Orange County School District
School Membership 2023-2024 School Year (November 15, 2023)

	11/15/22 Actual 2022-23	2023 Report Projection for 2023-24	11/15/23 Actual 2023-24	Change between actual Nov 2021 - Nov 2022
Elementary	3059		3055	- 4
Model			Projection is	
T		3038	L17	
OCP		3040	L15	
10C		3083	H28	
5C		3088	H33	
3C		3066	H11	
Average		3063	H8	
	11/15/22		11/15/23	
Middle	1598		1579	-19
Model			Projection is	
T		1587	H8	
OCP		1648	H69	
10C		1576	L3	
5C		1563	L16	
3C		1568	L11	
Average		1588	H9	
	11/15/22		11/15/23	
High	2487		2382	-105
Model			Projection is	
T		2470	H88	
OCP		2415	H33	
10C		2445	H63	
5C		2452	H70	
3C		2451	H69	
Average		2446	H64	
Totals	11/15/22		11/15/23	
Elementary	3059		3055	
Middle	1598		1579	
High	<u>2487</u>		<u>2382</u>	
Total	7144		7016	-128
Model			Projection is	
T		7095	H79	
OCP		7103	H87	
10C		7104	H88	
5C		7103	H87	
3C		7085	H69	
Average		7097	H81	

H means High L means Low

**Orange County School District
School Membership 2023-2024 School Year (November 15, 2023)**

Statistical Findings

<i>PROJECTION TYPE ABBREVIATIONS</i>	
'TISCHLER' LINEAR (T) ORANGE COUNTY PLANNING (OCP)	10-YEAR COHORT (10C) 5-YEAR COHORT (5C) 3-YEAR COHORT (3C)

Elementary School Level

- Projections were mixed, ranging from 17 students below to 33 students above actual membership. On average, the projections were 9 students above actual membership.
- The membership actually decreased by 4 students between November 15, 2022 and November 14, 2023.

Middle School Level

- Projections were mixed, ranging from 3 students below to 69 students above actual membership. On average, the projections were 9 students above actual membership.
- The membership actually decreased by 19 students between November 15, 2022 and November 14, 2023.

High School Level

- Projections were high, ranging from 33 students to 88 students above actual membership. On average, the projections were 64 students above actual membership.
- The membership actually decreased by 105 students between November 15, 2022 and November 14, 2023.

TOTAL

- The totals of all school level projections were all high, ranging from 69 to 88 students above actual membership. On average, the projections were 81 students above actual membership.
- The membership decreased in total by 128 students, which is the sum of -4 at Elementary, -19 at Middle, and -105 at High.

Section II

Chapel Hill-Carrboro City School District
School Membership 2023-2024 School Year (November 15, 2023)

	11/15/22 Actual 2022-23	2023 Report Projection for 2023-24	11/15/23 Actual 2023-24	Change between actual Nov 2022 - Nov 2023
Elementary	4657		4575	- 82
Model			Projection is	
T		4624	H49	
OCP		4588	H13	
10C		4582	H7	
5C		4561	L14	
3C		4550	L25	
Average		4581	H6	
	11/15/22		11/15/23	
Middle	2798		2716	- 82
Model			Projection is	
T		2778	H62	
OCP		2742	H26	
10C		2685	L31	
5C		2683	L33	
3C		2660	L56	
Average		2710	L6	
	11/15/22		11/15/23	
High	3950		3974	+ 24
Model			Projection is	
T		3922	L52	
OCP		3860	L114	
10C		3923	L51	
5C		3938	L36	
3C		3925	L49	
Average		3914	L60	
Totals	11/15/22		11/15/23	
Elementary	4657		4575	
Middle	2798		2716	
High	3950		3974	
Total	11,405		11,265	- 140
Model			Projection is	
T		11,324	H59	
OCP		11,190	L75	
10C		11,190	L75	
5C		11,182	L83	
3C		11,135	L130	
Average		11,205	L60	

H means High L means Low

**Chapel Hill-Carrboro City School District
School Membership 2023-2024 School Year (November 15, 2023)**

Statistical Findings

<i>PROJECTION TYPE ABBREVIATIONS</i>	
'TISCHLER' LINEAR (T) ORANGE COUNTY PLANNING (OCP)	10-YEAR COHORT (10C) 5-YEAR COHORT (5C) 3-YEAR COHORT (3C)

Elementary School Level

- Projections were mixed ranging from 25 students below to 49 students above actual membership. On average, the projections were 6 students above the actual membership.
- The actual membership decreased by 82 students between November 15, 2022 and November 14, 2023.

Middle School Level

- Projections were mixed, ranging from 56 students below to 62 students above actual membership. On average, the projections were 6 students below the actual membership.
- The actual membership decreased by 82 students between November 15, 2022 and November 14, 2023.

High School Level

- Projections were low, ranging from 36 students to 114 students below actual membership. On average, the projections were 60 students below actual membership.
- The actual membership increased by 24 students between November 15, 2022 and November 14, 2023.

TOTAL

- The totals of all school level projections were mixed, ranging from 130 students below to 59 students above actual membership. On average, the projections were 60 students below the actual membership.
- The membership decreased in total by 140 students, which is the sum of -82 at Elementary, -82 at Middle, and +24 at High.

Section II

C. Student Membership Projections

1. **Responsible Entity for Suggesting Change** – The updating of this section will be conducted by the Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) and referred to the BOCC for annual report certifications. Projections will be distributed to SAPFO partners for review and comments to the BOCC prior to certification.
2. **Definition** – The result of the average of the five student projection models represented by 10 year numerical membership projections by school level (Elementary, Middle, and High) for each school district (Chapel Hill-Carrboro City School District and Orange County School District).
3. **Standard for:**

Chapel Hill-Carrboro City School District The 5 model average discussed in Section II.B (Student Projection Methodology). See Attachment II.C.4	Standard for: Orange County School District The 5 model average discussed in Section II.B (Student Projection Methodology). See Attachment II.C.3
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4. **Analysis of Existing Conditions**

The membership figures and percentage growth on the attachments show a decrease and negative growth rate for all three school levels for both districts in the 10-year projection period. Attachment II.C.3 and Attachment II.C.4 show year-by-year percent growth and projected level of service (LOS). The projection models were updated using current (November 15, 2023) memberships. Ten years of student membership were projected thereafter.

Chapel Hill-Carrboro City School District**Elementary**

The previous year (2022-23) projections for November 2023 at this level were overestimated by 6 students. The actual membership decreased by 82 students. Over the past ten years, this level has experienced a decrease in nine out of ten school years, including this year. Growth rates during the past ten years have ranged from -8.76% to +1.20%. The district's eleventh elementary school, Northside Elementary School, opened in 2013. Capacity was decreased in 2017-18 due to changes in class size averages for kindergarten to third grade by the North Carolina State Legislature. The need for an additional elementary school is not anticipated in the 10-year projection period.

*Section II***Middle**

The previous year (2022-23) projections for November 2023 for this level were underestimated by 6 students. The actual membership decreased by 82 students. Over the past ten years, this level has shown varying increases and decreases. Growth rates during this time period have ranged from -4.17% to +3.78%. Capacity was increased in 2014-15 with the opening of the Culbreth Middle School science wing. The need for an additional middle school is not anticipated in the 10-year projection period.

High School

The previous year (2022-23) projections for November 2023 for this level were underestimated by 60 students. The actual membership increased by 24 students. Over the past ten years, this level has shown varying increases and decreases. Growth rates during this time period have ranged from -0.90 to +4.39%. The need for additional high school capacity at Carrboro High School is not anticipated in the 10-year projection period.

Orange County School District**Elementary**

The previous year (2022-23) projections for November 2023 at this level were overestimated by 9 students. Actual membership decreased by 4 students. Over the past ten years, this level experienced varying increases and decreases. Growth rates during this period have ranged from -5.72% to +1.81%. Capacity was decreased in 2017-18 due to changes in class size averages for kindergarten to third grade by the North Carolina State Legislature. The need for an additional Elementary School is not anticipated in the 10-year projection period.

Middle

The previous year (2022-23) projections for November 2023 for this level were overestimated by 9 students. The actual membership decreased by 19 students. Over the past ten years, this level has experienced varying increases and decreases. Growth rates during this period have ranged from -6.18% to +2.83%. The need for an additional Middle School is not anticipated in the 10-year projection period.

High School

The previous year (2022-23) projections for November 2023 for this level were overestimated by 64 students. The actual membership decreased by 105 students. Over the past ten years, this level has experienced varying increases and decreases. Growth rates during this period ranged from -4.22% to +3.35%. In 2012-13 capacity decreased by 119 at Orange High School as a

Section II

result of a N.C. Department of Public Instruction (DPI) study. The need for an additional high school is not anticipated in the 10-year projection period.

5. Recommendation:

Use statistics as noted in 3 above

[illegible]

Capacity decrease due to change in class size ratios per House Bill 13 (K-3 average class size ratios are 1:20 as directed by State legislative act on)

[illegible]

[illegible]

Orange High capacity decreased, per DPI study

Cedar Ridge High School adding 500 seats..

[illegible]

Section II

Attachment II.C.3 – Orange County Student Projections (Elementary, Middle, & High)
(2023-24)

MS0001123001

OCS Student Projections (1) (4)

School Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34
Actual	2,502	2,439	2,443	2,423	2,423	2,382	2,323	2,243	2,165	2,085										
Teacher (2)																				
SC Planning																				
10 Year Growth																				
5 Year Growth																				
1 Year Growth																				
Average	1,144	86	154	113	122	27	70	54	35	40	140	206	187	164	140	116	93	70	48	15
Annual Change - Increase (Decrease) in Actual & Projected Membership																				
Capacity - 100% Level of Service	1,894	1,694	1,694	1,711	1,653	1,591	1,515	1,430	1,351	1,271	1,191	1,111	1,031	951	871	791	711	631	551	471
Number of Students, Actual and Projected, Over Under 100% LOS	408	175	149	112	78	42	17	14	14	14	14	14	14	14	14	14	14	14	14	14
100% Level of Service	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979	3,979
Number of Students, Actual and Projected, Over Under 100% LOS	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850	1,850
Actual - % Level of Service	81.2%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%
Average - % Level of Service	81.2%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%	85.1%
Annual Student Growth Rate (3)	-0.07%	1.87%	-0.17%	-0.34%	-0.09%	0.06%	-0.17%	-0.17%	-0.19%	-0.17%	-0.17%	-0.17%	-0.17%	-0.17%	-0.17%	-0.17%	-0.17%	-0.17%	-0.17%	-0.17%

(1) The actual data for the 2014-15 school year is based on the 2014-15 actual data for the 2014-15 school year.

(2) The actual data for the 2014-15 school year is based on the 2014-15 actual data for the 2014-15 school year.

(3) Annual growth rate calculated using actual membership for years 2014-15 through 2022-23 and average membership for years 2023-24 through 2033-34.

(4) One data point for years 2014-15 through 2022-23. A historical data point for the 2008-09 school year is shown for comparison purposes only. It is not used in the calculations.

OCS Student Projections(1)

School Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34
Actual	1,765	1,738	1,724	1,704	1,704	1,704	1,694	1,684	1,674	1,664										
Teacher (2)																				
SC Planning																				
10 Year Growth																				
5 Year Growth																				
1 Year Growth																				
Average	16	125	151	6	49	145	109	2	69	139	199	259	319	379	439	499	559	619	679	739
Annual Change - Increase (Decrease) in Actual & Projected Membership																				
Capacity - 100% Level of Service	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106	2,106
Number of Students, Actual and Projected, Over Under 100% LOS	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441	441
100% Level of Service	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318
Number of Students, Actual and Projected, Over Under 100% LOS	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553	1,553
Actual - % Level of Service	81.5%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%
Average - % Level of Service	81.5%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%	86.1%
Annual Student Growth Rate (3)	0.86%	-1.31%	-0.89%	-0.93%	2.03%	4.36%	-0.19%	0.12%	-0.09%	-0.19%	-0.04%	0.06%	0.04%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%

(1) The actual data for the 2014-15 school year is based on the 2014-15 actual data for the 2014-15 school year.

(2) The actual data for the 2014-15 school year is based on the 2014-15 actual data for the 2014-15 school year.

(3) Annual growth rate calculated using actual membership for years 2014-15 through 2022-23 and average membership for years 2023-24 through 2033-34.

OCS Student Projections (1)

School Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34
Actual	2,502	2,439	2,443	2,423	2,423	2,382	2,323	2,243	2,165	2,085										
Teacher (2)																				
SC Planning																				
10 Year Growth																				
5 Year Growth																				
1 Year Growth																				
Average	81	135	123	11	84	46	135	91	15	150	110	120	107	11	10	110	1	122	145	172
Annual Change - Increase (Decrease) in Actual & Projected Membership																				
Capacity - 100% Level of Service	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439	2,439
Number of Students, Actual and Projected, Over Under 100% LOS	63	30	7	6	60	147	65	147	147	147	147	147	147	147	147	147	147	147	147	147
100% Level of Service	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893	2,893
Number of Students, Actual and Projected, Over Under 100% LOS	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491	1,491
Actual - % Level of Service	102.6%	101.7%	100.7%	100.7%	99.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%
Average - % Level of Service	102.6%	101.7%	100.7%	100.7%	99.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%	98.1%
Annual Student Growth Rate (3)	3.96%	-1.32%	-0.97%	-0.94%	-0.93%	2.04%	-0.67%	3.82%	0.12%	-0.09%	-0.04%	0.06%	0.04%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%	-0.09%

(1) The actual data for the 2014-15 school year is based on the 2014-15 actual data for the 2014-15 school year.

(2) The actual data for the 2014-15 school year is based on the 2014-15 actual data for the 2014-15 school year.

(3) Annual growth rate calculated using actual membership for years 2014-15 through 2022-23 and average membership for years 2023-24 through 2033-34.

Orange County Public Schools

Attachment II.C.4 – Chapel Hill-Carrboro Student Projections (Elementary, Middle, & High)
(2023-24)

CHCCS Student Projections (1) (4)

Elementary	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28	2028-29	2029-30	2030-31	2031-32	2032-33	2033-34
1. Civil	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
2. Electrical											4.59	4.51	4.55	4.53	4.21	4.24	4.07	4.05	4.24	4.33
3. Mechanical											4.59	4.51	4.55	4.53	4.21	4.24	4.07	4.05	4.24	4.33
4. Water Supply											4.59	4.51	4.55	4.53	4.21	4.24	4.07	4.05	4.24	4.33
5. Sewerage											4.59	4.51	4.55	4.53	4.21	4.24	4.07	4.05	4.24	4.33
6. Other Roads											4.59	4.51	4.55	4.53	4.21	4.24	4.07	4.05	4.24	4.33
7. Other Buildings											4.59	4.51	4.55	4.53	4.21	4.24	4.07	4.05	4.24	4.33
8. Other Services											4.59	4.51	4.55	4.53	4.21	4.24	4.07	4.05	4.24	4.33
9. Other											4.59	4.51	4.55	4.53	4.21	4.24	4.07	4.05	4.24	4.33
10. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
11. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
12. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
13. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
14. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
15. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
16. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
17. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
18. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
19. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
20. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
21. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33
22. Total	5.54	5.50	5.50	5.52	5.41	5.26	4.93	4.58	4.25	4.15	4.29	4.51	4.65	4.63	4.31	4.24	4.07	4.05	4.24	4.33

CHCCS Student Projections (1)

[illegible]

CHCCS Student Projections (1)

[illegible]

Section II

D. Student Membership Growth Rate

1. **Responsible Entity for Suggesting Change** – The updating of this section will be conducted by the Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) each year and referred to the BOCC for annual report certification. Projections will be distributed to SAPFO partners for review and comments to the BOCC prior to certification.
2. **Definition** – The annual percentage growth rate calculated from the projections resulting from the average of the five models represented by 10-year numerical membership projections by school level for each school district. This does not represent the year-by-year growth rate that may be positive or negative, but rather the average of the annual anticipated growth rates over the next 10 years.

3. **Standard for:****Chapel Hill-Carrboro City School District**

See Attachment II.D.2

4. **Analysis of Existing Conditions:****Chapel Hill-Carrboro City School District**

The membership figures and percentage growth on the attachments show a decline in student membership at each school level within the system. Projected Average Annual Growth Rate over next ten years:

School Level	Year Projection Made				
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Elementary	0.65%	-0.23%	-0.88%	-0.47%	-1.14
Middle	-0.07%	-1.50%	-2.10%	-1.77%	-1.96
High	0.03%	-1.44%	-2.15%	-2.09%	-1.83

5. **Recommendation:****Chapel Hill-Carrboro City School District**

Use statistics as noted.

Standard for:**Orange County School District**

See Attachment II.D.2

Analysis of Existing Conditions:**Orange County School District**

The membership figures and percentage growth on the attachments show a decline in student membership at each school level within the system. Projected Average Annual Growth Rate over next ten years:

School Level	Year Projection Made				
	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
Elementary	0.84%	-0.02%	-0.04%	0.26%	-0.14
Middle	0.37%	-0.67%	-0.72%	-0.15%	-0.44
High	0.21%	-0.98%	-1.06%	0.98%	-0.91

Recommendation:**Orange County School District**

Use statistics as noted.

Section II

Attachment II.D.1 – Orange County and Chapel Hill-Carrboro City Student Growth Rates (Chart dates from 2023-2033 based on 11/15/22 membership numbers) (2022-23)

2022-2023

Orange County Student Projections

Elementary

School Year	2022-2023 (actual)	2023- 2024	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033
Membership	3,059	3,063	3,044	3,025	3,037	3,051	3,068	3,085	3,105	3,121	3,138
Average % Increase		0.13%	-0.64%	-0.60%	0.38%	0.48%	0.55%	0.57%	0.64%	0.52%	0.55%

Middle

School Year	2022-2023 (actual)	2023- 2024	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033
Membership	1,598	1,588	1,578	1,584	1,584	1,565	1,544	1,551	1,556	1,564	1,574
Average % Increase		-0.60%	-0.65%	0.38%	-0.02%	-1.20%	-1.33%	0.44%	0.31%	0.52%	0.64%

High School

School Year	2022-2023 (actual)	2023- 2024	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033
Membership	2,487	2,446	2,420	2,352	2,291	2,299	2,293	2,278	2,287	2,268	2,254
Average % Increase		-1.63%	-1.08%	-2.79%	-2.62%	0.33%	-0.24%	-0.64%	0.38%	-0.84%	-0.62%

Chapel Hill/Carrboro Student Projections

Elementary

School Year	2022-2023 (actual)	2023- 2024	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033
Membership	4,657	4,581	4,495	4,410	4,370	4,374	4,384	4,394	4,411	4,426	4,439
Average % Increase		-1.63%	-1.87%	-1.90%	-0.89%	0.08%	0.24%	0.22%	0.39%	0.33%	0.30%

Middle

School Year	2022-2023 (actual)	2023- 2024	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033
Membership	2,798	2,710	2,631	2,577	2,538	2,452	2,360	2,319	2,322	2,331	2,338
Average % Increase		-3.16%	-2.89%	-2.06%	-1.54%	-3.37%	-3.76%	-1.74%	0.13%	0.39%	0.32%

High School

School Year	2022-2023 (actual)	2023- 2024	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033
Membership	3,950	3,914	3,862	3,797	3,676	3,596	3,524	3,430	3,356	3,273	3,197
Average % Increase		-0.92%	-1.33%	-1.66%	-3.19%	-2.19%	-1.99%	-2.68%	-2.14%	-2.48%	-2.31%

2023-2024

Orange County Student Projections

Elementary

School Year	2023-2024 (actual)	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033	2033- 2034
Membership	3,055	3,011	2,985	2,970	2,964	2,950	2,961	2,975	2,985	2,996	3,012
Average % Increase	-0.13%	-1.44%	-0.85%	-0.49%	-0.21%	-0.50%	0.38%	0.50%	0.34%	0.36%	0.52%

Middle

School Year	2023-2024 (actual)	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033	2033- 2034
Membership	1,579	1,572	1,586	1,593	1,562	1,539	1,524	1,516	1,497	1,502	1,509
Average % Increase	-1.19%	-0.42%	0.88%	0.43%	-1.92%	-1.47%	-0.98%	-0.56%	-1.25%	0.34%	0.51%

High School

School Year	2023-2024 (actual)	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033	2033- 2034
Membership	2,382	2,377	2,306	2,259	2,270	2,268	2,250	2,251	2,229	2,184	2,172
Average % Increase	-4.22%	-0.23%	-2.95%	-2.04%	0.48%	-0.11%	-0.77%	0.06%	-1.00%	-2.01%	-0.55%

Chapel Hill/Carrboro Student Projections

Elementary

School Year	2023-2024 (actual)	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033	2033- 2034
Membership	4,575	4,436	4,291	4,191	4,134	4,049	4,048	4,053	4,057	4,064	4,074
Average % Increase	-1.76%	-3.03%	-3.28%	-2.32%	-1.38%	-2.05%	-0.02%	0.13%	0.10%	0.16%	0.25%

Middle

School Year	2023-2024 (actual)	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033	2033- 2034
Membership	2,716	2,669	2,619	2,590	2,504	2,459	2,359	2,305	2,220	2,222	2,226
Average % Increase	-2.93%	-1.72%	-1.88%	-1.10%	-3.34%	-1.79%	-4.04%	-2.29%	-3.69%	0.07%	0.18%

High School

School Year	2023-2024 (actual)	2024- 2025	2025- 2026	2026- 2027	2027- 2028	2028- 2029	2029- 2030	2030- 2031	2031- 2032	2032- 2033	2033- 2034
Membership	3,974	3,926	3,904	3,805	3,741	3,681	3,602	3,531	3,476	3,347	3,249
Average % Increase	0.61%	-1.20%	-0.55%	-2.54%	-1.69%	-1.61%	-2.15%	-1.98%	-1.55%	-3.72%	-2.90%

Section II

E. Student / Housing Generation Rate

1. **Responsible Entity for Suggesting Change** – The updating of this section will be conducted by Planning Directors, School Representatives, and Technical Advisory Committee (SAPFOTAC) and referred to the BOCC for certification.
Projections will be distributed to SAPFO partners for review and comments to the BOCC prior to certification.
2. **Definition** – Student generation rate refers to the number of public school students per housing unit constructed in each school district, as defined in the Student Generation Rate Study completed by TisherBise on October 28, 2014. Housing units include single-family detached, single family attached/duplex, multifamily, and manufactured homes.
3. **Standard for:**

Chapel Hill-Carrboro City School District See Attachment II.E.1	Standard for: Orange County School District See Attachment II.E.1
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4. **Analysis of Existing Conditions:**

At the January 2014 SAPFOTAC meeting, members discussed the increased number of students generated in both school districts from new development, particularly multifamily housing. The SAPFOTAC recommended further evaluation of the adopted Student Generation Rates and the impacts the number of bedrooms a particular housing type may have on student generation rates. As a result, Orange County entered into a contract with TischlerBise to update the student generation rate analysis. The new student generation rates were approved on May 19, 2015 and are shown in Attachment II.E.1. New rates from the 2014 Student Generation Rates for Orange County Schools and Chapel Hill-Carrboro School District Report are based on an inventory of recently built units from January 1, 2004 to December 31, 2013.

It should be noted that students are generated from new housing as well as from existing housing where new families have moved in. The CAPS system estimates new development impacts and associated student generation, but it is important to understand that student increases are a composite of both of these factors. This effect can be dramatic and can vary greatly between areas and districts where either new

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housing is dominant or new families move into a large inventory of existing housing stock.

5. *Recommendation:*

No change at this time.

Section II

Attachment II.E.1 – Current Student Generation Rates (2015)

TischlerBise Student Generation Rates – 2014

Chapel Hill/Carrboro Schools				
	0-3 Bedrooms	4 Bedrooms	5+ Bedrooms	Weighted Average
Single-Family Detached	0.61	0.84	1.13	0.84
	0-2 Bedrooms	3+ Bedrooms		Weighted Average
Single-Family Attached	0.27	0.42		0.38
Multifamily/Other	0.11	0.47		0.18
Manufactured Home	0.268	0.86		0.78
Weight Average for Chapel Hill/Carrboro School District				0.49

Orange County Schools				
	0-3 Bedrooms	4 Bedrooms	5+ Bedrooms	Weighted Average
Single-Family Detached	0.35	0.57	0.57	0.44
	0-2 Bedrooms	3+ Bedrooms		Weighted Average
Single-Family Attached	0.07	0.17		0.15
Multifamily/Other	0.08	0.67		0.17
Manufactured Home	0.67	0.47		0.52
Weight Average for Orange County School District				0.37

Source: Student Generation Rates for Orange County School District and Chapel Hill-Carrboro School District, TischlerBise, October 28, 2014
Revised May 7, 2015

Section II

III. Flowchart of Schools Adequate Public Facilities Ordinance Process

Abstract: The Schools Adequate Public Facilities Ordinance process has two distinct components:

A. Capital Investment Plan (CIP) (Process 1)

Timeframe: In November of each year, Student Membership and Building Capacity is transmitted from the school districts to the Orange County Board of Commissioners for consideration and approval and used in the following years CIP (e.g. November 15, 2023 membership numbers used to develop a CIP to be considered for adoption in June 2024).

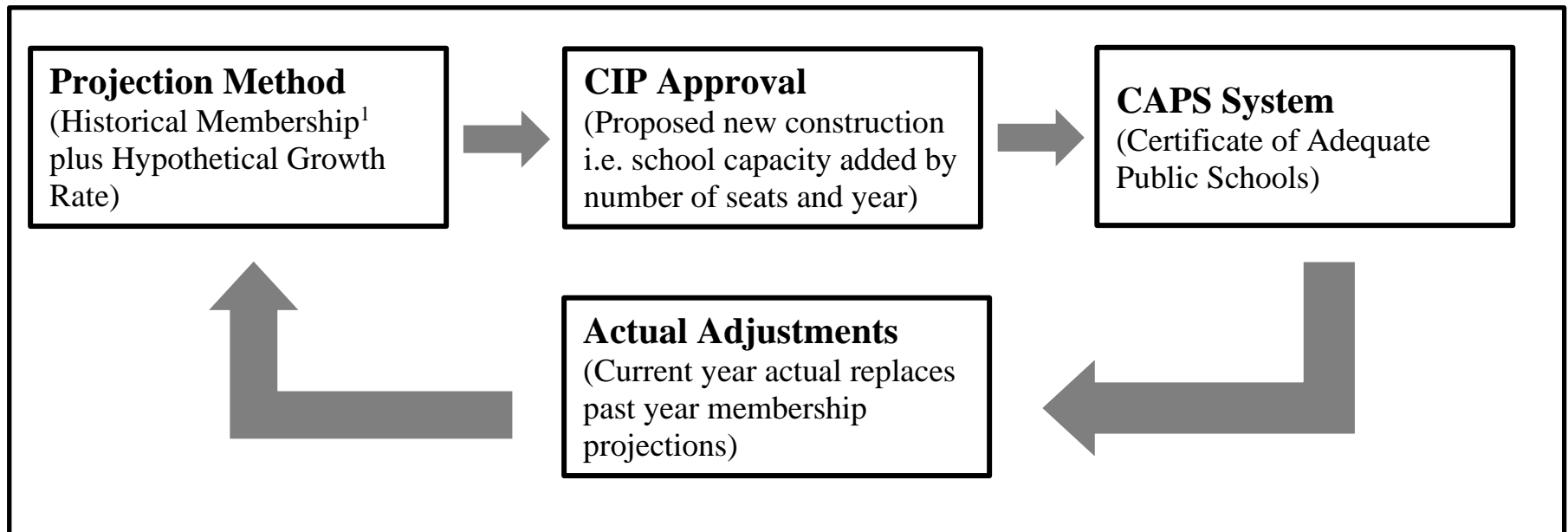
Process Framework

1. SAPFOTAC projects future student membership from historical data, current membership and hypothetical growth rates from established methodologies.
2. School Districts and BOCC compare projections to existing capacity and proposed Capital Investment Plan.
3. SAPFOTAC forwards data and projections to all SAPFO partners.
4. School Districts develop Capital Investment Plan Needs Assessment during this process
5. The Capital Investment Plan work sessions and Public Hearings are conducted by the BOCC in the spring of each year.
6. The adoption of CIP that sets forth monies and timeframe for school construction (future capacity) by BOCC.

Section III

School Adequate Public Facilities Ordinance

Process 1 - Capital Investment Planning (CIP)



¹Historical Membership is a product of students generated from: (1) pre-existing/approved undeveloped lots where new housing is built, (2) existing housing stock with new families/children, and (3) newly approved housing development (in the future this component will be known as CAPS approved development).

²The only part of the CAPS System (i.e., computer spreadsheet subdivision tracking) that receives data from the Process 1 CIP includes the actual membership (November 15 of preceding CIP year) and new school capacity amount (seats) in a specific year pursuant to the CIP.

Section III

B. Schools Adequate Public Facilities Ordinance Certificate of Adequate Public Schools (CAPS) Update (Process 2)

Timeframe: The CAPS system is updated approximately November 15 of each year when the school districts report actual membership and ‘pre-certified’ capacity, whether it is CIP associated or prior ‘joint action’ agreement. ‘Joint action’ determinations of changes in capacity due to State rules or other non-construction related items are anticipated to be done prior to the November 15 capacity and membership reporting date. This update may reflect the Board of County Commissioners action on the earlier year Capital Investment Plan (CIP) as it affects capacity and addition of new actual fall membership. The Schools Adequate Public Facilities Ordinance Certificate of Adequate Public Schools (CAPS) stays in effect until the following year – (e.g.: November 15, 2005 to November 14, 2006).

New development is originally logged for a certain year. As the CAPS system is updated, each CAPS projection year is ‘absorbed’ by the actual estimate of a given year. Later year CAPS projections of the same development remain in the future year CAPS system accordingly. For example, if a 50-lot subdivision is issued a CAPS, 15 lots may be assigned to “Year 1,” 10 lots to “Year 2,” 10 lots to “Year 3,” 10 lots to “Year 4,” and 5 lots to “Year 5.” When “Year 1” is updated, the students generated from the 15 lots are absorbed by the actual estimate. The students generated in “Years 2, 3, 4, and 5” are held in the CAPS system and added to the appropriate year when the CAPS system is updated.

The City of Mebane is not a party to the SAPFO and does not require that CAPS be issued prior to approving development activities. Increasing development within this area of the county has the potential to encumber a significant portion of the available capacity within the Orange County School District. Although the SAPFO system is not formally regulated in Mebane, staff monitors development activity and when students enter the school system, their enrollment is calculated and used in future school projection needs.

Please note that the two processes (CIP and CAPS) are on separate, but parallel tracks. However, the CIP does create a crossover of capacity information between the two processes. For example, the SAPFO system for both school districts that will be established / initiated /

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certified each year in November and is based on prior year created and/or planned CIP capacity and current school year membership. The SAPFOTAC report including new current year membership and projections are to be used for upcoming CIP development as noted in Process 1.

CIP Process 1 (for CIP 2024 - 2034)

November 2022 – June 2023 (using 2023 SAPFOTAC Report)

SAPFO CAPS Process 2 (for SAPFO System 2024 – 2025)

November 2023 - November 2024

School Adequate Public Facilities Ordinance

Process 2 - Certificate of Adequate Public Schools (CAPS) Allocation

2024 CAPS system is effective November 15, 2023 through November 14, 2024.

The system is updated with new membership, CIP capacity changes, and any other BOCC/School District joint action approved capacity prior to November 15, 2023. This information is received within 5 days of November 15 and posted within the next 15 days. This CAPS system recalibration is retroactive to November 15, 2023.

CAPS Allocation System

1. Certified Capacity
2. LOS Capacity
3. Actual Membership
4. Year Start Available Capacity
5. Ongoing Current Available Capacity (includes available capacity decreases from approved CAPS development by year)
6. CAPS approved development
 - a. Total units
 - b. Single Family¹
 - c. Other Housing¹

CAPS System²

$$AC = SC - (ADM + ND1 + ND2 + \dots)$$

$AC \geq 0$ - Issue CAPS

$AC < 0$ - Defer CAPS to later date

¹ Student Generation Rates from CAPS housing type create future membership estimate. Please note that this CAPS membership future estimate is different than the projection based on historical data and projection models used in the CIP process 1. This estimate only captures new development impact, which is the component that the SAPFO can regulate.

² AC – Available Capacity - Starts at Annual Update Capacity and reduces as CAPS approved development is entered into the system.

SC – Certified School Level Capacity

ADM – Average Daily Membership

ND – New Development; ND1 means first approved CAPS approved development