

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
2021

(BASED ON NOVEMBER 2020 DATA)

CERTIFIED BY THE BOCC ON MAY X, 2021

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2021 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	4893	(470)	3361	3047	(185)
<i>Middle</i>	2944	2917	(127)	2166	1654	(109)
<i>High</i>	3975	3932	(8)	2439	2381	(16)

C. Membership Date – November 15.....(No Change).....Pg. 17

II. Annual Update to SAPFO System

A. Capital Investment Plan (CIP)(No Change).....Pg. 18

B. Student Membership Projection Methodology(No Change).....Pg. 19 The average of 3, 5, and 10-year history/cohort survival, linear and arithmetic projection models.

C. Student Membership Projections(Change).....Pg. 29

Analysis of 5 Years of Projections for 2020-2021 School Year – Chapel Hill/Carrboro City Schools

(The first column for each year includes the student membership projection made for 2020-2021 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 2020-2021 Membership									
	Actual 2020 Membership	2015-2016		2016-2017		2017-2018		2018-2019		2019-2020	
Elementary	4893	5699	H806	5728	H835	5473	H580	5444	H551	5356	H463
Middle	2917	2996	H79	2984	H67	2929	H12	2981	H64	3045	H128
High	3932	3883	H49	3879	H53	3933	H1	3972	H40	3985	H53

Analysis of 5 Years of Projections for 2020-2021 School Year – Orange County Schools

(The first column for each year includes the student membership projection made for 2020-2021 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 2020-2021 Membership									
	Actual 2020 Membership	2015-2016		2016-2017		2017-2018		2018-2019		2019-2020	
Elementary	3047	3390	H343	3267	H220	3186	H139	3262	H215	3267	H220
Middle	1654	1790	H136	1765	H111	1730	H76	1737	H83	1728	H74
High	2381	2604	H223	2539	H158	2456	H75	2371	H10	2401	H20

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:	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Elementary	0.91%	0.36%	0.56%	0.65%	-0.23%	0.51%	0.58%	0.91%	0.84%	-0.02%
Middle	0.95%	0.21%	0.19%	-0.07%	-1.50%	0.36%	0.13%	0.28%	0.37%	-0.67%
High	0.72%	0%	0.16%	0.03%	-1.44%	0.22%	-0.10%	0.21%	0.21%	-0.98%

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**

- Does not currently exceed 105% LOS standard (current LOS is 86.4%).
- The projected growth rate at this level is expected to decrease over the next 10 years (average ~ -0.23% per year compared to 0.29% over the past 10 years).
- Similar to last year, projections are not showing a need for an additional Elementary School in the 10-year projection period.

Middle School Level

- Does not currently exceed 107% LOS standard (current LOS is 99.1%).
- The projected growth rate at this level is expected to decrease over the next 10 years (average ~ -1.50% compared to an average of 1.19% over the past 10 years).
- Similar to last year, projections are not showing a need for an additional Middle School in the 10-year projection period.

High School Level

- Does not currently exceed the 110% LOS standard (current LOS is 98.9%).
- The projected growth rate at this level is expected to decrease over the next 10 years (average ~ -1.44% compared to 0.90% over the past 10 years).
- Capacity has increased by 100 seats due to renovations at Chapel Hill High School. Similar to last year, 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 90.7%).
- B. The projected growth rate at this level is expected to decrease over the next 10 years (average ~ -0.02% compared to 0.09% over the past 10 years).
- C. Similar to last year, 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 76.4%).
- B. The projected growth rate at this level is expected to decrease over the next 10 years (average ~ -0.67% compared to 0.59% over the past 10 years).
- C. Similar to last year, 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 97.6%).
- B. The projected growth rate at this level is expected to decrease over the next 10 years (average ~ -0.98% compared to 0.81% over the past 10 years).
- C. Similar to last year, projections are not showing a need to expand Cedar Ridge High School from the initial capacity of 1,000 students to 1,500 students in the 10-year projection period.

ADDITIONAL INFORMATION

COVID Impacts

Both school districts have experienced decreases in student membership due to students being withdrawn and enrolled in private schools with in-person learning or homeschooled. At this time, staff believes these are temporary impacts and a majority of these students will return when in-person learning commences. However, the loss of students has impacted the SAPFO 10-year projections by decreasing future student growth rates and service levels and pushing building capacity needs far beyond the 10-year projection period. Recognizing concerns with these projections not being constructive in planning for the future or when students return to the classroom, Orange County Planning staff drafted hypothetical 2020-21 student membership and grade level numbers in order to generate alternative 10-year student projections.

Hypothetical student membership and grade level numbers were drafted based on SAPFO data from previous reports. The purpose of this was to draft informal projections which may depict future student growth rates and service levels without the impacts from COVID. Staff believes the 10-year projections will correct themselves when students return to the classroom and student membership numbers increase to regular levels. Due to the requirements in the SAPFO MOUs, these projections cannot be certified, but may be documented in the annual report. Similar to the 2020-21 SAPFO projections, the alternative projections utilize the same methodology contained in the SAPFO MOUs. The four alternative projections were based on the following scenarios and data:

- Scenario 1: Draft 10-year projections using 2019 SAPFO student membership and grade level numbers for this school year (2020-21).
- Scenario 2: Draft 10-year projections using the average student membership and grade level numbers from the previous five school years (2015-2019).

- Scenario 3: Draft 10-year projections using the average Student Growth Rates from the past 10 school years.
- Scenario 4: Draft 10-year projections using the average Student Growth Rates over the next 10 school years.

Based on the four alternative projections, no capacity needs were identified in the 10-year projection period for both districts. Outcomes (i.e. projected student membership, service levels, and student growth rates) of the alternative projections are similar to 10-year projections contained in previous SAPFO reports. The following tables provide a summary of the alternative projections for the 2030-31 school year including average student membership numbers and service levels. In addition, average student membership numbers and service levels from the 2020-21 SAPFO projections are provided for comparison purposes. The 2020-21 SAPFO projection sheets, contained on pages 35 and 36 of this report, are certified annually by the Orange County Board of Commissioners. Spreadsheets of the alternative projections can be provided upon request.

Chapel Hill – Carrboro City Schools						
	SAPFO Level of Service (LOS) and Building Capacity					
	Elementary		Middle		High	
	Capacity at 100% LOS	Capacity at 105% LOS	Capacity at 100% LOS	Capacity at 107% LOS	Capacity at 100% LOS	Capacity at 110% LOS
	5,664	5,947	2,944	3,150	3,975	4,373
	2030-31 School Year					
	Elementary		Middle		High	
	Average Membership	Level of Service	Average Membership	Level of Service	Average Membership	Level of Service
Scenario 1	5,688	100.4%	3,040	103.2%	3,954	99.5%
Scenario 2	5,751	101.5%	3,010	102.3%	3,948	99.3%
Scenario 3	5,724	101.1%	3,073	104.4%	4,009	100.9%
Scenario 4	5,738	101.3%	3,067	104.2%	3,987	100.3%
2020-21 Projections	4,782	84.4%	2,505	85.1%	3,401	85.5%

Orange County Schools						
	SAPFO Level of Service (LOS) and Building Capacity					
	Elementary		Middle		High	
	Capacity at 100% LOS	Capacity at 105% LOS	Capacity at 100% LOS	Capacity at 107% LOS	Capacity at 100% LOS	Capacity at 110% LOS
	3,361	3,529	2,166	2,318	2,439	2,683
	2030-31 School Year					
	Elementary		Middle		High	
	Average Membership	Level of Service	Average Membership	Level of Service	Average Membership	Level of Service
Scenario 1	3,478	103.5%	1,819	84.0%	2,444	83.2%
Scenario 2	3,413	101.6%	1,797	83.0%	2,434	82.8%
Scenario 3	3,492	103.9%	1,836	84.8%	2,471	84.1%
Scenario 4	3,516	104.6%	1,843	85.1%	2,477	84.3%
2020-21 Projections	3,039	90.4%	1,545	71.4%	2,157	73.4%

Changes in Average Class Size

In 2018, the North Carolina General Assembly unveiled House Bill 90 which allows for a phasing-in process to address the decrease in class size averages over the next three school years. Based on House Bill 90, average class sizes for kindergarten to third grade will face a decrease from 1:20 to 1:19 for the 2019-2020 school year, 1:19 to 1:18 for the 2020-2021 school year, and 1:18 to 1:17 for the 2021-2022 school year. Reductions in class size averages may create elementary school capacity issues for the 2024-25 school year based on the four alternative SAPFO projections. In order to address these impacts in time, the School Boards and Orange County Board of Commissioners met to review elementary school capacity (including Pre-K impacts) and determine how to implement the school capacity changes into the SAPFO annual report and 10-year student membership and building capacity projections sheets. At this time, no decisions have been made by the Schools Joint Action Committee (SJAC). As a result, the 1:20 class size continues to be used for SAPFO purposes.

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. Pre-K enrollment has been included in discussions regarding changes in class size and school capacity. However, Pre-K numbers and impacts continue to be monitored by the SAPFOTAC. In addition, the annual report will begin to report Pre-K membership beginning with the 2019-20 school year, prior to COVID impacts. 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	86

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*
*The Expedition School reached full capacity of 365 students last school year		

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)

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	Expected Number of Students
Collins Ridge Phase 1	Hillsborough	672	Elementary: 84 Middle: 45 High: 57
Weavers Grove	Chapel Hill	235	Elementary: 44 Middle: 18 High: 20
The Meadows	Mebane	256	Elementary: 60 Middle: 31 High: 34
Stagecoach Corner	Mebane	35	Elementary: 9 Middle: 5 High: 6
Bowman Village/ Bowman Place	Mebane	177	Elementary: 48 Middle: 23 High: 30
The Townes of Oakwood Square	Mebane	88	Elementary: 5 Middle: 4 High: 5
Northeast Village (Havenstone Phase 1 & 2)	Mebane	169	Elementary: 46 Middle: 22 High: 29

Tupelo Junction	Mebane	181	Elementary: 49 Middle: 24 High: 31
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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 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.

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)**

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Chapel Hill-Carrboro City School District
Nyah Hamlett, Superintendent
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Catherine Mau, Coordinator of Student Enrollment
750 Merritt Mill Road
Chapel Hill, NC 2751

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

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

- | | |
|--|---|
| <p>5. Recommendation:</p> <p>Chapel Hill-Carrboro City School District</p> <p>No change from above standard.</p> | <p>Recommendation:</p> <p>Orange County School District</p> <p>No change from above standard.</p> |
|--|---|

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.

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 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 2020-21 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.

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.

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 the SAPFOTAC on approved forms distributed to SAPFO partners and certified upon approval by the Board of County Commissioners each year. The requested 2020-21 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.

Attachment I.B.1 Orange County School Capacity (Elementary, Middle, & High)
 (2019-20)
 (Page 1 of 3)

School APFO Capacity, Membership and Change Request Form

School District: Orange County Schools

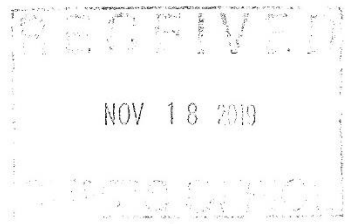
SAPFO CAPS Year: November 15, 2019 - November 14, 2020

Capacity and Membership Submittal Date: November 15, 2019

Elementary School	Square Feet	2015-2016 Requested Capacity	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	Justification Footnote #	Membership
Cameron Park	70,812	565	565	502	502	502		601
Central	52,492	455	455	428	428	428		286
Efland Cheeks	64,316	497	497	455	455	455		499
Grady Brown	74,016	544	544	490	490	490		442
Hillsborough	51,106	471	471	420	420	420		444
New Hope	100,164	586	586	526	526	526		579
Pathways	85,282	576	576	540	540	540		381
Total	498,188	3,694	3,694	3,361	3,361	3,361		3,232

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 Certification:

Margaret E. Elder 11/19/19
 Superintendent Date

Membership Certification:

Margaret E. Elder 11/19/19
 Superintendent Date

[Signature]
 BOCC Chair Date

[Signature]
 BOCC Chair Date

Attachment I.B.1 Orange County School Capacity (Elementary, Middle, & High)
 (2019-20)
 (Page 2 of 3)

School APFO Capacity, Membership and Change Request Form

School District: Orange County Schools

SAPFO CAPS Year: November 15, 2019 - November 14, 2020

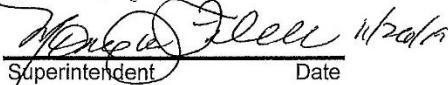
Capacity and Membership Submittal Date: November 15, 2019

Middle School	Square Feet	2015-2016 Requested Capacity	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	Justification Footnote #	Membership
A.L. Stanback	136,000	740	740	740	740	740		653
C.W. Stanford	107,620	726	726	726	726	726		642
Gravelly Hill	123,000	700	700	700	700	700		468
Total	366,620	2,166	2,166	2,166	2,166	2,166		1,763

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.

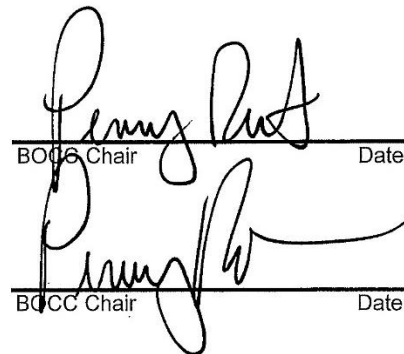
Justification:


Capacity Certification:


 Superintendent Date

Membership Certification:


 Superintendent Date

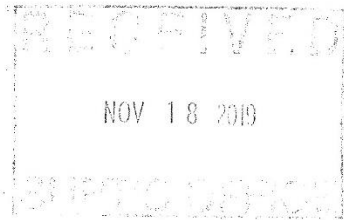

 BOCC Chair Date


 BOCC Chair Date

School APFO Capacity, Membership and Change Request Form**School District:** Orange County Schools**SAPFO CAPS Year:** November 15, 2019 - November 14, 2020**Capacity and Membership Submittal Date:** November 15, 2019

High School	Square Feet	2015-2016 Requested Capacity	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	Justification Footnote #	Membership
Orange	213,509	1,399	1,399	1,399	1,399	1,399		1,296
Cedar Ridge	206,900	1,000	1,000	1,000	1,000	1,000		1,067
Partnership	6,600	40	40	40	40	40		34
Total	427,009	2,439	2,439	2,439	2,439	2,439		2,397

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. 2. The 2012-2013 capacity numbers for Orange High School (1,399) is based on a capacity analysis and facilities study completed by the Department of Public Instruction in August 2012.

Justification:**Capacity Certification:**

Monica Feller 4/15/15
 Superintendent Date

Membership Certification:

Monica Feller 11/15/19
 Superintendent Date

Penny R...
 BOCC Chair Date

Penny R...
 BOCC Chair Date

Section I

Attachment I.B.2 Chapel Hill-Carrboro City School Capacity (Elementary, Middle, & High)
 (2019-20)
 (Page 1 of 3)

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 15, 2019 - November 14, 2020
Capacity and Membership Submittal Date: November 15, 2019

Elementary School	Square Feet	2015-2016 Requested Capacity	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Carrboro	60,832	533	533	518	518	518	*	515
Ephesus	66,952	448	448	436	436	436		389
Estes Hills	56,299	527	527	516	516	516		429
Glenwood	50,764	538	423	412	412	412		456
FP Graham	66,689	423	538	522	522	522		585
McDougle	98,000	564	564	548	548	548		552
Rashkis	95,729	585	585	568	568	568		494
Scroggs	90,980	585	575	558	558	558		425
Seawell	52,896	585	466	450	450	450		517
Morris Grove	90,221	575	585	568	568	568		545
Northside	99,500	466	585	568	568	568		456
Total	828,862	5,829	5,829	5,664	5,664	5,664		5,363

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:

* Waiting for the Schools Joint Action Committee reductions for class size changes

Capacity Certification:

Pamela Bator 11/20/19
 Superintendent Date

Membership Certification:

Pamela Bator 11/20/19
 Superintendent Date

Penny Ruhl
 BOCC Chair Date

Penny Ruhl
 BOCC Chair Date

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 15, 2019 - November 14, 2020
Capacity and Membership Submittal Date: November 15, 2019

Middle School	Square Feet	2015-2016 Requested Capacity	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Culbreth	122,467	774	774	774	774	774		800
McDougle	136,221	732	732	732	732	732		692
Phillips	109,498	706	706	706	706	706		748
Smith	128,764	732	732	732	732	732		804
Total	496,950	2,944	2,944	2,944	2,944	2,944		3,044

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 Certification:

Pamela Bald 11/20/19
Superintendent Date

Membership Certification:

Pamela Bald 11/20/19
Superintendent Date

Penny Rut
BOCC Chair Date

Penny Rut
BOCC Chair Date

School APFO Capacity, Membership and Change Request Form

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 15, 2019 - November 14, 2020
Capacity and Membership Submittal Date: November 15, 2019

High School	Square Feet	2015-2016 Requested Capacity	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	Justification Footnote #	Membership (referenced school year)
Chapel Hill	241,111	1,520	1,520	1,520	1,520	1,520		1,514
East Chapel Hill	259,869	1,515	1,515	1,515	1,515	1,515		1,519
Carrboro	148,023	800	800	800	800	800		869
Phoenix Acad.	5,207	40	40	40	40	40		38
Total	654,210	3,875	3,875	3,875	3,875	3,875		3,940

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 Certification:

Pamela Balda 11/20/19
Superintendent Date

Membership Certification:

Pamela Balda 11/20/19
Superintendent Date

Penny Pad
BOCC Chair Date

Penny Pad
BOCC Chair Date

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

School District: Orange County Schools

SAPFO CAPS Year: November 13, 2020 - November 14, 2021

Capacity and Membership Submittal Date: November 13, 2020

Elementary School	Square Feet	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Cameron Park	70,812	565	565	502	502	502		567	112.9%
Central	52,492	455	455	428	428	428		268	62.6%
Efland Cheeks	64,316	497	497	455	455	455		499	109.7%
Grady Brown	74,016	544	544	490	490	490		405	82.7%
Hillsborough	51,106	471	471	420	420	420		427	101.7%
New Hope	100,164	586	586	526	526	526		533	101.3%
Pathways	85,282	576	576	540	540	540		348	64.4%
Total	498,188	3,694	3,694	3,361	3,361	3,361		3,047	90.7%

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 J. Felde 11/14/20
 Superintendent Date

Renee A. Price 1-19-21
 BOCC Chair Date

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

School District: Orange County Schools

SAPFO CAPS Year: November 13, 2020 - November 14, 2021

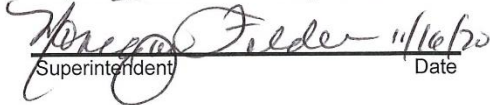
Capacity and Membership Submittal Date: November 13, 2020

Middle School	Square Feet	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
A.L. Stanback	136,000	740	740	740	740	740		627	84.7%
C.W. Stanford	107,620	726	726	726	726	726		583	80.3%
Gravelly Hill	123,000	700	700	700	700	700		444	63.4%
Total	366,620	2,166	2,166	2,166	2,166	2,166		1,654	76.4%

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:


Superintendent Date


BOCC Chair Date

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

School District: Orange County Schools

SAPFO CAPS Year: November 13, 2020 - November 14, 2021

Capacity and Membership Submittal Date: November 13, 2020

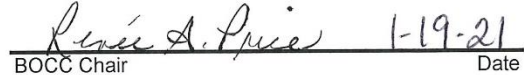
High School	Square Feet	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Cedar Ridge	206,900	1,000	1,000	1,000	1,000	1,000		1,035	103.5%
Orange	213,509	1,399	1,399	1,399	1,399	1,399		1,317	94.1%
Partnership	6,600	40	40	40	40	40		29	72.5%
Total	427,009	2,439	2,439	2,439	2,439	2,439		2,381	97.6%

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:

Capacity and Membership Certification:


 Superintendent Date


 BOCC Chair Date

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

School District: Chapel Hill-Carrboro City Schools
SAPFO CAPS Year: November 13, 2020 - November 14, 2021
Capacity and Membership Submittal Date: November 13, 2020

Elementary School	Square Feet	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Carrboro	60,832	533	518	518	518	518	*	478	92.3%
Ephesus	66,952	448	436	436	436	436		342	78.4%
Estes Hills	56,299	527	516	516	516	516		380	73.6%
FP Graham	66,689	538	522	522	522	522		564	108.0%
Glenwood	50,764	423	412	412	412	412		433	105.1%
McDougle	98,000	564	548	548	548	548		488	89.1%
Morris Grove	90,221	585	568	568	568	568		492	86.6%
Northside	99,500	585	568	568	568	568		402	70.8%
Rashkis	95,729	585	568	568	568	568		437	76.9%
Scroggs	90,980	575	558	558	558	558		474	84.9%
Seawell	52,896	466	450	450	450	450		403	89.6%
Total	828,862	5,829	5,664	5,664	5,664	5,664		4,893	86.4%

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: Waiting for the Schools Joint Action Committee reductions for class size changes.

Capacity and Membership Certification:


11/15/2020
 Superintendent Date


1-19-21
 BOCC Chair Date

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

School District: Chapel Hill-Carrboro City Schools

SAPFO CAPS Year: November 13, 2020 - November 14, 2021

Capacity and Membership Submittal Date: November 13, 2020


Middle School	Square Feet	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Culbreth	122,467	774	774	774	774	774		737	95%
McDougle	136,221	732	732	732	732	732		751	103%
Phillips	109,498	706	706	706	706	706		694	98%
Smith	128,764	732	732	732	732	732		735	100%
Total	496,950	2,944	2,944	2,944	2,944	2,944		2,917	99.1%

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:

 11/15/2020
Superintendent Date

 1-19-21
BOCC Chair Date

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

School District: Chapel Hill-Carrboro City Schools

SAPFO CAPS Year: November 13, 2020 - November 14, 2021

Capacity and Membership Submittal Date: November 13, 2020

High School	Square Feet	2016-2017 Requested Capacity	2017-2018 Requested Capacity	2018-2019 Requested Capacity	2019-2020 Requested Capacity	2020-2021 Requested Capacity	Justification Footnote #	Membership (referenced school year)	Percentage of Capacity/Level of Service
Carrboro	148,023	800	800	800	800	800		838	105%
Chapel Hill	278,508	1,520	1,520	1,520	1,520	1,620	*	1,529	94%
East Chapel Hill	259,869	1,515	1,515	1,515	1,515	1,515		1,516	100%
Phoenix Acad.	5,207	40	40	40	40	40		49	123%
Total	691,607	3,875	3,875	3,875	3,875	3,975		3,932	98.9%

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: 100 seats added to CHHS for the 2020-21 school year. Total square feet 278,508.

Capacity and Membership Certification:

 11/15/2020

Superintendent Date

 1-19-21

BOCC Chair Date

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 will 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.
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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, 2021.
5. ***Recommendation:***
 Not subject to staff review

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:**

Standard for:

Chapel Hill-Carrboro City School District

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 2020-21 school year from the prior year projection.

5. **Recommendation:**

Analysis on the accuracy of the results is showing that some models have better results in one district while others have better results in the other district. 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 begin enrollment. The system is updated in November of each year, becoming part of the historical projection base.

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

**Orange County School District
School Membership 2019-20 School Year (November 15, 2019)**

	11/15/18 Actual 2018-19	2019 Report Projection for 2019-20	11/15/19 Actual 2019-20	Change between actual Nov 2018 - Nov 2019
Elementary	3205		3232	+ 27
Model			Projection is	
T		3217	L15	
OCP		3215	L17	
10C		3217	L15	
5C		3197	L35	
3C		3217	L15	
Average		3213	L19	
	11/15/18		11/15/19	
Middle	1779		1763	- 16
Model			Projection is	
T		1786	H23	
OCP		1773	H10	
10C		1808	H45	
5C		1794	H31	
3C		1788	H25	
Average		1790	H27	
	11/15/18		11/15/19	
High	2349		2397	+ 48
Model			Projection is	
T		2358	L39	
OCP		2385	L12	
10C		2339	L58	
5C		2339	L58	
3C		2318	L79	
Average		2348	L49	
Totals	11/15/18		11/15/19	
Elementary	3205		3232	
Middle	1779		1763	
High	<u>2349</u>		<u>2397</u>	
Total	7333		7392	+ 59
Model			Projection is	
T		7361	L31	
OCP		7373	L19	
10C		7364	L28	
5C		7330	L62	
3C		7323	L69	
Average		7351	L41	

H means High
L means Low

**Orange County School District
School Membership 2019-2020 School Year (November 15, 2019)**

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

- The projections were all low, ranging from 15 students to 35 students below actual membership. On average, the projections were 19 students lower than the actual membership.
- The membership actually increased by 27 students between November 16, 2018 and November 15, 2019.

Middle School Level

- Projections were all high, ranging from 10 students to 45 students above actual membership. On average, the projections were 27 students higher than the actual membership.
- The membership actually decreased by 16 students between November 16, 2018 and November 15, 2019.

High School Level

- The majority of projections all low, ranging from 12 students to 79 students below actual membership. On average, the projections were 49 students lower than the actual membership.
- The membership actually increased by 48 students between November 16, 2018 and November 15, 2019.

TOTAL

- The totals of all school level projections were low, ranging from 19 students to 69 students below actual membership. On average, the projections were 41 students lower than the actual membership.
- The membership increased in total by 59 students, which is the sum of +27 at Elementary, -16 at Middle, and +48 at High.

Chapel Hill-Carrboro City School District
School Membership 2019-2020 School Year (November 15, 2019)

	11/15/18 Actual 2018-19	2019 Report Projection for 2019-20	11/15/19 Actual 2019-20	Change between actual Nov 2018 - Nov 2019
Elementary	5471		5363	- 108
Model			Projection is	
T		5512	H149	
OCP		5417	H54	
10C		5423	H60	
5C		5473	H110	
3C		5418	H55	
Average		5448	H85	
	11/15/18		11/15/19	
Middle	2933		3044	+ 111
Model			Projection is	
T		2955	L89	
OCP		2910	L134	
10C		3010	L34	
5C		2908	L136	
3C		3025	L19	
Average		2962	L82	
	11/15/18		11/15/19	
High	3932		3940	+ 8
Model			Projection is	
T		3962	H22	
OCP		4055	H115	
10C		3894	L46	
5C		3902	L38	
3C		3926	L14	
Average		3948	H8	
Totals	11/15/18		11/15/19	
Elementary	5471		5363	
Middle	2933		3044	
High	<u>3932</u>		<u>3940</u>	
Total	12,336		12,347	+ 11
Model			Projection is	
T		12,429	H82	
OCP		12,382	H35	
10C		12,327	L20	
5C		12,283	L64	
3C		12,369	H22	
Average		12,358	H11	

H means High
L means Low

**Chapel Hill-Carrboro City School District
School Membership 2019-2020 School Year (November 15, 2019)**

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 all high ranging from 54 students to 149 students above actual membership. On average, the projections were 85 students higher than the actual membership.
- The actual membership decreased by 108 students between November 16, 2018 and November 15, 2019.

Middle School Level

- Projections were all low, ranging from 19 students to 136 students below actual membership. On average, the projections were 82 students lower than the actual membership.
- The actual membership increased by 111 students between November 16, 2018 and November 15, 2019.

High School Level

- Projections were mixed, ranging from 46 students below to 115 students above actual membership. On average, the projections were 8 students higher than the actual membership.
- The actual membership increased by 8 students between November 16, 2018 and November 15, 2019.

TOTAL

- The totals of all school level projections were mixed, ranging from 64 students below to 82 students above actual membership. On average, the projections were 11 students higher than the actual membership.
- The membership increased in total by 11 students, which is the sum of -108 at Elementary, +111 at Middle, and +8 at High.

Orange County School District
School Membership 2020-2021 School Year (November 13, 2020)

	11/15/19 Actual 2019-20	2020 Report Projection for 2020-21	11/13/20 Actual 2020-21	Change between actual Nov 2019 - Nov 2020
Elementary	3232		3047	- 185
Model			Projection is	
T		3241	H194	
OCP		3248	H201	
10C		3275	H228	
5C		3285	H238	
3C		3286	H239	
Average		3267	H220	
	11/15/19		11/13/20	
Middle	1763		1654	- 109
Model			Projection is	
T		1768	H114	
OCP		1773	H119	
10C		1709	H55	
5C		1702	H48	
3C		1686	H32	
Average		1728	H74	
	11/15/19		11/13/20	
High	2397		2381	- 16
Model			Projection is	
T		2404	H23	
OCP		2412	H31	
10C		2398	H17	
5C		2389	H8	
3C		2401	H20	
Average		2401	H20	
Totals	11/15/19		11/13/20	
Elementary	3232		3047	
Middle	1763		1654	
High	2397		2381	
Total	7392		7082	- 310
Model			Projection is	
T		7413	H331	
OCP		7433	H351	
10C		7382	H300	
5C		7376	H294	
3C		7373	H291	
Average		7396	H314	

H means High
L means Low

**Orange County School District
School Membership 2020-2021 School Year (November 13, 2020)**

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 all high, ranging from 194 students to 239 students above actual membership. On average, the projections were 220 students higher than the actual membership.
- The membership actually decreased by 185 students between November 16, 2019 and November 13, 2020.

Middle School Level

- Projections were all high, ranging from 32 students to 119 students above actual membership. On average, the projections were 74 students higher than the actual membership.
- The membership actually decreased by 109 students between November 16, 2019 and November 13, 2020.

High School Level

- Projections were all high, ranging from 8 students to 31 students above actual membership. On average, the projections were 20 students higher than the actual membership.
- The membership actually decreased by 16 students between November 16, 2019 and November 13, 2020.

TOTAL

- The totals of all school level projections were all high, ranging from 291 students to 351 students above actual membership. On average, the projections were 314 students higher than the actual membership.
- The membership decreased in total by 310 students, which is the sum of -185 at Elementary, -109 at Middle, and -16 at High.

Chapel Hill-Carrboro City School District
School Membership 2020-2021 School Year (November 12, 2020)

	11/15/19 Actual 2019-20	2020 Report Projection for 2020-21	11/13/20 Actual 2020-21	Change between actual Nov 2019 - Nov 2020
Elementary	5363		4893	- 470
Model			Projection is	
T		5398	H505	
OCP		5378	H485	
10C		5349	H456	
5C		5331	H438	
3C		5322	H429	
Average		5356	H463	
Middle	3044		2917	- 127
Model			Projection is	
T		3064	H147	
OCP		3055	H138	
10C		3031	H114	
5C		3033	H116	
3C		3042	H125	
Average		3045	H128	
High	3940		3932	- 8
Model			Projection is	
T		3966	H34	
OCP		3959	H27	
10C		3981	H49	
5C		3998	H66	
3C		4022	H90	
Average		3985	H53	
Totals	11/15/19		11/13/20	
Elementary	5363		4893	
Middle	3044		2917	
High	<u>3940</u>		<u>3932</u>	
Total	12,347		11,742	- 605
Model			Projection is	
T		12,428	H686	
OCP		12,392	H650	
10C		12,361	H619	
5C		12,362	H620	
3C		12,386	H644	
Average		12,386	H644	

H means High
L means Low

**Chapel Hill-Carrboro City School District
School Membership 2020-2021 School Year (November 12, 2020)**

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 all high ranging from 429 students to 505 students above actual membership. On average, the projections were 463 students higher than the actual membership.
- The actual membership decreased by 470 students between November 16, 2019 and November 13, 2020.

Middle School Level

- Projections were all high, ranging from 114 students to 147 students above actual membership. On average, the projections were 128 students higher than the actual membership.
- The actual membership decreased by 127 students between November 16, 2019 and November 13, 2020.

High School Level

- Projections were all high, ranging from 27 students to 90 students above actual membership. On average, the projections were 53 students higher than the actual membership.
- The actual membership decreased by 8 students between November 16, 2019 and November 13, 2020.

TOTAL

- The totals of all school level projections were all high, ranging from 619 students to 686 students above actual membership. On average, the projections were 644 students higher than the actual membership.
- The membership decreased in total by 605 students, which is the sum of -470 at Elementary, -127 at Middle, and -8 at High.

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 13, 2020) memberships. Ten years of student membership were projected thereafter.

Chapel Hill-Carrboro City School District

Elementary

The previous year (2019-20) projections for November 2020 at this level were overestimated by 463 students. The actual membership decreased by 470 students. Over the previous ten years, this level has shown varying increases and decreases in growth rates. Following a significant increase (168 students) in 2011-12, this level has experienced a decrease in five out of the following eight school years. Growth rates during the past ten years have ranged from -1.97% to +3.17%. The district's eleventh elementary school, Northside Elementary School, opened in

Section II

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. This is similar to last year's projections.

Although not included in SAPFO school capacity or membership numbers, Pre-K programs continue to impact operations at District elementary schools where Pre-K programs exist. CHCCS reported 208 Pre-K students for the 2020-21 school year. Specific impacts of Pre-K programs at the elementary school level continue to be reviewed and discussed .

Middle

The previous year (2019-20) projections for November 2020 for this level were overestimated by 128 students. The actual membership decreased by 127 students. Over the previous ten years, this level has shown varying increases before experiencing decreases in 2015-16 and 2016-17. Following these decreases, membership increased the last three school years before experiencing a decrease this year. Growth rates during this time period have ranged from -0.59% 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. This is similar to last year's projections.

High School

The previous year (2019-20) projections for November 2020 for this level were overestimated by 53 students. The actual membership decreased by 8 students. Over the previous ten years, growth has been variable with decreases in membership in only three of the last ten years. Growth rates during this time period have ranged from -0.90 to +4.39%. Due to renovations at Chapel Hill High School, this level experienced an increase in capacity of 100 seats. The need for additional high school capacity at Carrboro High School is not anticipated in the 10-year projection period. This is similar to last year's projections.

Additional Information for Chapel Hill-Carrboro City School District

Following the economic downturn (2011-14), there has been an increase in residential projects, specifically multifamily development, in the Town of Chapel Hill. As previously stated, proposed growth is not directly and immediately included in the SAPFO projection system until actual students begin enrollment. However, proposed student growth resulting from new

Section II

development is directly accounted for through the CAPS test. The CAPS test is conducted during the approval process at a certain stage and this step does project development impacts against rated capacity. 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 construction requests. SAPFOTAC will continue to monitor and evaluate the demand and growth of residential development in Chapel Hill and Carrboro as well as its effect on student membership rates.

Orange County School District

Elementary

The previous year (2019-20) projections for November 2020 at this level were overestimated by 220 students. Actual membership decreased by 185 students. Over the previous ten years, this level experienced positive growth before experiencing decreases in 2014-15, 2016-17, and 2017-18. Following these decreases, this level experienced increases during the last two school years before experiencing a decrease this year. Growth rates during this period have ranged from -5.07% to +2.30%. 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. This is similar to last year's projections.

Although not included in SAPFO school capacity or membership numbers, Pre-K programs continue to impact operations at District elementary schools where Pre-K programs exist. OCS reported 86 Pre-K students for the 2020-21 school year. Specific impacts of Pre-K programs at the elementary school level continue to be reviewed and discussed.

Middle

The previous year (2019-20) projections for November 2020 for this level were overestimated by 74 students. The actual membership decreased by 109 students. Over the previous ten years, growth has varied widely with decreases in student membership in four of the ten school years. Growth rates during this period have ranged from -1.31% to +3.74%. The need for an additional Middle School is not anticipated in the 10-year projection period. This is similar to last year's projections.

*Section II***High School**

The previous year (2019-20) projections for November 2020 for this level were overestimated by 20 students. The actual membership decreased by 16 students. This school level has experienced decreases in four out of the ten previous school years and this school year. Growth rates during this period ranged from -3.93% to 4.58%. In 2012-13 student membership increased by 32 while capacity decreased by 119 at Orange County High School as a result of a N.C. Department of Public Instruction (DPI) study. Similar to last year's projections, the need for additional capacity at Cedar Ridge High School is not anticipated in the 10-year projection period. However, to address public safety concerns with the current high school capacity exceeding the 100% threshold, Cedar Ridge High School will be expanded from an initial capacity of 1,000 students to 1,500 students for the 2021-22 school year.

Additional Information for Orange County School District

The City of Mebane lies partially within Orange County and students within the Orange County portion of Mebane attend Orange County Schools. However, 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. Following the economic downturn (2011-14), there has been an increase in approved and undeveloped residential development in the City of Mebane and the Town of Hillsborough. However, the residential growth that has occurred in the recent past within Mebane's and Hillsborough's jurisdiction has yet to be seen with OCS student membership numbers and fully realized into the historically based projection methods due to the recession, charter schools, and possibly new family dynamics affecting family size. SAPFOTAC will continue monitoring and evaluating the demand and growth of residential development in Mebane and Hillsborough as well as its effect on student membership rates.

Currently, there are two Charter Schools located in the Town of Hillsborough, which continue to have an effect on OCS membership numbers. Charter schools are not included as part of the SAPFO Annual Report and, as a result, their membership and capacity are not included in future projections. However, the SAPFOTAC does monitor charter schools and their effect on student enrollment at both school districts.

5. Recommendation:

Use statistics as noted in 3 above

Attachment II.C.1 – Orange County Student Projections (Elementary, Middle, & High)
(2019-20)

OCS Student Projections (1) (4)

[illegible]

It is important to note that this reflects the November 15, 2019 date of its endorsement as outlined in by the Schools Advocate Public Facilities Ordinal

2) The Tischer Model provides for the "Linear Method" of projections for both CHCS and CCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CH

Actual growth rate calculated using actual membership for years 2010-11 through 2019-20 and average membership for years 2020-21 through 2025.

D) Annual growth rate calculated using actual membership for years 2010-11 through 2019-20 and average membership for years 2020-21 through 2025

Class sizes for grades K-2 = 1-23 for school years 2000 through 2007-08. In accordance with 2005 School Collaboration Visit Group direction, effective the 2005-2006 school year with the opening of CHC, all parents of over-age students (up to 19 years old) through 2007-08 were encouraged to enroll their child through 2007-08 through 2008-09.

OCS Student Projections(1)

[illegible]

It is intended to note that this subject the November 15, 2018 date of an embargo, as reflected in the Google Adwords Public Facility Online

c) It is important to note that this reflects the November 15, 2018 date of membership as outlined in by the *Schools Adequate Public Facilities Ordinal*

(2) The Tracker Model provides for the "Linear Method" of projections for both CHCSS and CCS. Original projections used in prior years projection models.

(2) The Tishler Model provides for the "Linear Method" of projections for both CHC/CS and CCS. Original projections used in prior years projection model were calculated using actual membership for years 2011-2012 and average membership for years 2013-2014 and average membership for years 2015-2016. The Tishler Model provides for the "Linear Method" of projections for both CHC/CS and CCS.

3) Annual growth rate calculated from 1990 to 1999 through 17-1999 and 1999-2000 through 17-2000

OCS Student Projections (1)

[illegible]

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3) It is important to note that this reflects the November 15, 2018 date of membership as outlined in by the Schools Adequate Public Facilities Ordinal

[illegible]

32) The Triskel Model provides for the "Linear Method" of projections for both CHC's and OC's. Original projections used in prior years projection models

3) Annual growth rate calculated using actual membership for years 2010-11 through 2019-20 and average membership for years 2020-21 through 2023-24.

Attachment II.C.2 – Chapel Hill-Carrboro Student Projections (Elementary, Middle, & High)
(2019-20)

CHCCS Student Projections (1) (4)

Elementary		2009-10	2010-11	2011-12	2012-13	2013-14	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
	Actual	5,210	5,296	5,464	5,543	5,554	5,541	5,501	5,567	5,522	5,471	5,363	5,366	5,432	5,407	5,502	5,537	5,571	5,606	5,641	5,676	5,710
	Teacher (2)																					
	O/C Planning												5,378	5,371	5,413	5,453	5,493	5,532	5,570	5,608	5,643	5,684
	1 Year Growth												5,349	5,349	5,388	5,428	5,468	5,508	5,548	5,588	5,628	5,670
	2 Year Growth												5,323	5,365	5,383	5,370	5,415	5,460	5,513	5,567	5,622	5,677
	Average												5,362	5,367	5,367	5,442	5,468	5,537	5,584	5,632	5,680	5,723
	Annual Change - Increase (Decrease) In Actual & Projected Membership	(63)	77	158	79	11	(13)	(40)	66	(48)	(61)	(100)	(97)	(7)	-10	75	47	47	48	49	48	43
	Capacity - 100% Level of Service LOS	5,244	5,244	5,244	5,244	5,029	5,029	5,029	5,029	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064	5,064
	Number of Students Actual and Projected Over Under 100% LOS	(20)	52	209	(70)	(289)	(200)	(200)	(200)	(140)	(130)	(301)	(300)	(307)	(320)	(316)	(307)	(300)	(301)	(302)	(316)	59
	Capacity - 105% Level of Service LOS	5,505	5,505	5,505	5,505	5,120	5,120	5,120	5,120	5,147	5,147	5,147	5,147	5,147	5,147	5,147	5,147	5,147	5,147	5,147	5,147	5,147
	Number of Students Actual and Projected Over Under 105% LOS	(277)	(210)	(49)	37	(669)	(579)	(519)	(455)	(395)	(370)	(684)	(682)	(690)	(690)	(656)	(640)	(611)	(583)	(573)	(567)	(224)
	Average % Level of Service	99.2%	100.2%	100.2%	100.2%	98.2%	98.2%	98.2%	98.2%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%	98.5%
	Annual Student Growth Rate (%)	-1.57%	1.48%	3.17%	1.45%	0.20%	-0.23%	-0.72%	1.20%	-0.81%	-0.92%	-1.97%	-0.14%	0.03%	0.18%	1.40%	0.97%	0.86%	0.86%	0.86%	0.86%	0.76%

It is important to note that this success the November 15, 2011 vote of membership as outlined in the Schools Adequacy Litigation. It does not indicate the City is not spending the Money.

(2) The Tiscar Model provides for the "Linear Method" of projections for both CHCCS and OCSS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCC.

2) Annual growth rate calculated using actual membership for years 2000-01 through 2019-20 and average membership for years 2020-21 through 2029-30

4) Class sizes for grades K-3 = 1.23 for school years 2000 through 2007-08. In accordance with 2005 School Collaboration Work Group decision, effective the 2008-2009 school year with the opening of CHOCSS Elementary

CHCCS Student Projections (1)

CHCCS Student Projections (1)

[illegible]

It is important to note that this reflects the November 15, 2018 date of membership as outlined in by the Schools Associate Public Notice Ordinance. It does not include CHSCL students attending the Housley School.

(2) The Tricubic Model provides the "Linear Method" of projections for both CHC'S and OC'S. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHC

Researcher: I have been thinking about you a lot lately. I have been thinking about you a lot lately.

CHCCS Student Projections (1)

High

CHCCS Student Projections (1)

[illegible]

It is important to note that this reflects the November 15, 2011 date of implementation as outlined in the School Averages Public Notice. It does not include the 13 students attending Phoenix Academy High School, becomes official high school

(d) The Trichter Model provides for the "Unwise Method" of projections for both CHCS and CCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCS and the "Unwise Method" for CCS. The Trichter Model provides for the "Unwise Method" of projections for both CHCS and CCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CHCS and the "Unwise Method" for CCS.

5) Annual growth rate calculated using actual membership for years 2001-0,11 through 2019-20 and average membership for years 2020-21 through 2024-30

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Section II

Attachment II.C.3 – Orange County Student Projections (Elementary, Middle, & High)
(2020-21)

OCS Student Projections (1) (4)

School Year	2009-10	2010-11	2011-12	2012-13	2013-14	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
Actual	3,211	3,255	3,301	3,403	3,423	3,523	3,531	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551	3,551
Teacher (2)																						
DC Planning																						
10 Year Growth																						
5 Year Growth																						
3 Year Growth																						
Average	48	74	63	45	38	153	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68
Capacity - 100% Level of Service	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654
Number of Students, Actual and Projected, Over (Under) 100% LOS	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)
100% Level of Service	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654	3,654
Number of Students, Actual and Projected, Over (Under) 100% LOS	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)	(45)
Actual - % Level of Service	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%	88.9%
Average - % Level of Service	1.45%	2.39%	1.52%	1.64%	1.84%	0.88%	-1.07%	-1.81%	-2.75%	-3.24%	0.88%	-0.72%	-1.17%	-0.95%	-0.42%	-0.88%	-0.42%	0.59%	0.59%	0.60%	0.60%	0.60%
Annual Student Growth Rate (3)																						

Capacity decreases due to change in class size ratio per House Bill 1330.

3 average class size ratios are 1:20 as directed by State legislation.

(1) Not projected to be affected by the December 15, 2020 date of membership as collected by the School Adequacy Public Funding Calculator.

(2) The Teacher data provided for the 2020-21 year of membership as collected by the School Adequacy Public Funding Calculator.

(3) The Teacher data provided for the 2020-21 year of membership as collected by the School Adequacy Public Funding Calculator.

(4) Annual growth rate calculated as the annual membership for each year 2011-15 through 2020-21 and average membership for years 2011-15 through 2020-21.

(5) Data for the 2009-10 school year is based on the 2008-09 school year with the opening of OCS's 6th Elementary WIS. All other data are 1:20 as directed by State legislation.

OCS Student Projections(1)

School Year	2009-10	2010-11	2011-12	2012-13	2013-14	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
Actual	1,895	1,895	1,704	1,684	1,747	1,702	1,738	1,724	1,730	1,719	1,763	1,844	1,848	1,842	1,835	1,829	1,823	1,817	1,811	1,805	1,808	1,802
Teacher (2)																						
DC Planning																						
10 Year Growth																						
5 Year Growth																						
3 Year Growth																						
Average	64	33	6	100	63	15	120	100	6	49	169	109	109	109	109	109	109	109	109	109	109	109
Capacity - 100% Level of Service	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166
Number of Students, Actual and Projected, Over (Under) 100% LOS	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)
100% Level of Service	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166	2,166
Number of Students, Actual and Projected, Over (Under) 100% LOS	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)	(271)
Actual - % Level of Service	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%	85.2%
Average - % Level of Service	4.80%	1.89%	0.20%	-1.17%	-3.74%	0.88%	-1.31%	-0.86%	0.25%	2.23%	-0.95%	-4.16%	-1.19%	-0.46%	0.13%	-1.18%	-0.31%	-1.39%	-1.71%	-1.42%	0.60%	0.60%
Annual Student Growth Rate (3)																						

Capacity decreases due to change in class size ratio per House Bill 1330.

3 average class size ratios are 1:20 as directed by State legislation.

(1) Not projected to be affected by the December 15, 2020 date of membership as collected by the School Adequacy Public Funding Calculator.

(2) The Teacher data provided for the 2020-21 year of membership as collected by the School Adequacy Public Funding Calculator.

(3) The Teacher data provided for the 2020-21 year of membership as collected by the School Adequacy Public Funding Calculator.

(4) Annual growth rate calculated as the annual membership for each year 2011-15 through 2020-21 and average membership for years 2011-15 through 2020-21.

(5) Data for the 2009-10 school year is based on the 2008-09 school year with the opening of OCS's 6th Elementary WIS. All other data are 1:20 as directed by State legislation.

OCS Student Projections (1)

School Year	2009-10	2010-11	2011-12	2012-13	2013-14	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
Actual	2,712	2,722	2,700	2,710	2,715	2,747	2,802	2,806	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844
Teacher (2)																						
DC Planning																						
10 Year Growth																						
5 Year Growth																						
3 Year Growth																						
Average	64	33	6	100	63	15	120	100	6	49	169	109	109	109	109	109	109	109	109	109	109	109
Capacity - 100% Level of Service	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658
Number of Students, Actual and Projected, Over (Under) 100% LOS	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)
100% Level of Service	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658	2,658
Number of Students, Actual and Projected, Over (Under) 100% LOS	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)	(44)
Actual - % Level of Service	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%	86.7%
Average - % Level of Service	-1.12%	0.23%	2.77%	1.40%	4.85%	3.35%	-1.32%	-0.93%	-0.94%	-3.93%	2.94%	-0.97%	-0.86%	-0.95%	-0.95%	-0.95%	-0.95%	-1.18%	-0.37%	-0.94%	-1.10%	-0.89%
Annual Student Growth Rate (3)																						

Capacity decreases due to change in class size ratio per House Bill 1330.

3 average class size ratios are 1:20 as directed by State legislation.

(1) Not projected to be affected by the December 15, 2020 date of membership as collected by the School Adequacy Public Funding Calculator.

(2) The Teacher data provided for the 2020-21 year of membership as collected by the School Adequacy Public Funding Calculator.

(3) The Teacher data provided for the 2020-21 year of membership as collected by the School Adequacy Public Funding Calculator.

(4) Annual growth rate calculated as the annual membership for each year 2011-15 through 2020-21 and average membership for years 2011-15 through 2020-21.

(5) Data for the 2009-10 school year is based on the 2008-09 school year with the opening of OCS's 6th Elementary WIS. All other data are 1:20 as directed by State legislation.

Attachment II.C.4 – Chapel Hill-Carrboro Student Projections (Elementary, Middle, & High)
(2020-21)

CHCCS Student Projections (1) (4)

Elementary		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
School Year		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Actual		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Projected		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Annual Change - Increase (Decrease) in Actual & Projected Membership		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Capacity - 90% Level of Service (LOS)		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Number of Students, Actual and Projected, Over (Under) 90% LOS		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Capacity - 90% Level of Service (LOS)		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Number of Students, Actual and Projected, Over (Under) 100% LOS		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Average % Level of Service		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
Annual Student Growth Rate (%)		2008-09																	2009-10																	2010-11																	2011-12																	2012-13																	2013-14																	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																
		-1.67%	1.46%	3.17%	1.49%	0.20%	-0.23%	-0.77%	1.20%	-0.11%	-0.62%	-0.97%	-0.78%	-1.73%	3.29%	-0.46%	-0.66%	-0.49%	0.69%	0.69%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%	0											

*) It is important to note that this reflects the November 16, 2020 date of membership as reflected in the Science Advancing Public Facilities Ordinance. It does not include CHCC's already attending the Wendell School.

2) The Teacher Model provides for the "Linear Method" of projections for both CECSS and CCS. Original projections used in prior years projection models included the "Linear Extrapolation Method" for CEC

*) Annual growth rate calculated using actual membership for years 2003-12 and average membership for years 2003-12 through 2030-31

6. Class sizes for grades K-2 = 1:25 for school year 2007 through 2007-08. In accordance with 2008 School Collaboration Work Group findings, effective for the 2008-2009 school year with the opening of CICC's Elementary #10, K-2 class size will be 1:21 as directed by part 156a negative action.

CHCCS Student Projections (1)

Middle		2009-10	2010-11	2011-12	2012-13	2013-14	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
	Actual	2,708	2,722	2,753	2,765	2,860	2,881	2,884	2,876	2,833	2,833	3,044	3,111										
	Annual Change - Increase (Decrease) In Actual & Projected Membership	2,845	2,840	2,846	2,840	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844	2,844
	Capacity - 50% Level of Service	(132)	(118)	(87)	659	18	(87)	(106)	(110)	(111)	(111)	(111)	(67)	(79)	(114)	(187)	(272)	(242)	(266)	(432)	(471)	(459)	(430)
	Number of Students Actual and Projected - Over (Under) 100% LOS	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029
	50% Level of Service	(231)	(217)	(208)	(244)	(261)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)
	Number of Students Actual and Projected - Over (Under) 100% LOS	3,260	3,246	3,237	3,273	3,330	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328	3,328
	100% Level of Service	(231)	(217)	(208)	(244)	(261)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)	(299)
	Annual Student Growth Rate (%)	8.41%	8.50%	1.14%	1.99%	2.92%	5.19%	-0.69%	-0.63%	0.43%	3.67%	-4.17%	-1.49%	-1.82%	-2.84%	-2.76%	-2.19%	-1.89%	-1.63%	-1.11%	-0.96%	0.66%	0.66%
Projected for new state collected 2024-25																							

It is important to note that this reflects the November 15, 2020 date of membership as reflected in the School Activity Public Facilities Ordinance. It does not include CWC's already attending the World's Fair.

(2) The Teacher Model provided for the "Linear Method" of projections for both CHCCS and CCS. Original projection used in prior years projection model included the "Linear Extrapolation Method" for CHC.

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CHCCS Student Projections (1)

[illegible]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	52
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19. The Teacher Model section for the 5-Year Method of instruction for both CTECS and CTEB. Original calculations used in this section were included in the "5-Year Extrapolation Method" for CTEB.

23. Annual growth rate calculated using official membership for years 2003-12, though membership for years 2004-12 and average membership for years 2004-12 through 2009-12.

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	Orange County School District See Attachment II.D.2
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4. **Analysis of Existing Conditions:**

Chapel Hill-Carrboro City School District The membership figures and percentage growth on the attachments show continued growth at each school level within the system. Projected Average Annual Growth Rate over next ten years:	Orange County School District The membership figures and percentage growth on the attachments show continued growth at each school level within the system. Projected Average Annual Growth Rate over next ten years:
---	---

School Level	Year Projection Made				
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Elementary	0.91%	0.36%	0.56%	0.65%	-0.23%
Middle	0.95%	0.21%	0.19%	-0.07%	-1.50%
High	0.72%	0%	0.16%	0.03%	-1.44%

School Level	Year Projection Made				
	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Elementary	0.51%	0.58%	0.91%	0.84%	-0.02%
Middle	0.36%	0.13%	0.28%	0.37%	-0.67%
High	0.22%	-0.10%	0.21%	0.21%	-0.98%

5. **Recommendation:**

Chapel Hill-Carrboro City School District Use statistics as noted.	Orange County School District Use statistics as noted.
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Section II

Attachment II.D.1 – Orange County and Chapel Hill-Carrboro City Student Growth Rates (Chart dates from 2020-2030 based on 11/15/19 membership numbers) (2019-20)

2019-2020

Orange County Student Projections

Elementary

School Year	2019-2020 (actual)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
Membership	3,232	3,267	3,281	3,320	3,351	3,378	3,406	3,433	3,459	3,486	3,513
Average % Increase		1.08%	0.42%	1.19%	0.95%	0.79%	0.82%	0.79%	0.77%	0.77%	0.77%

Middle

School Year	2019-2020 (actual)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
Membership	1,763	1,728	1,719	1,713	1,732	1,732	1,762	1,781	1,796	1,812	1,828
Average % Increase		-2.01%	-0.47%	-0.35%	1.11%	-0.01%	1.72%	1.10%	0.84%	0.87%	0.87%

High School

School Year	2019-2020 (actual)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
Membership	2,397	2,401	2,415	2,433	2,404	2,401	2,370	2,380	2,408	2,416	2,447
Average % Increase		0.16%	0.57%	0.76%	-1.18%	-0.12%	-1.31%	0.44%	1.16%	0.34%	1.27%

Chapel Hill/Carrboro Student Projections

Elementary

School Year	2019-2020 (actual)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
Membership	5,363	5,356	5,357	5,367	5,442	5,489	5,537	5,584	5,632	5,680	5,723
Average % Increase		-0.14%	0.03%	0.18%	1.40%	0.87%	0.86%	0.86%	0.86%	0.85%	0.76%

Middle

School Year	2019-2020 (actual)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
Membership	3,044	3,045	3,016	2,992	2,933	2,917	2,897	2,946	2,970	2,995	3,020
Average % Increase		0.03%	-0.97%	-0.77%	-1.97%	-0.55%	-0.68%	1.69%	0.81%	0.84%	0.83%

High School

School Year	2019-2020 (actual)	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030
Membership	3,940	3,985	4,021	4,085	4,123	4,111	4,090	4,001	3,972	3,959	3,950
Average % Increase		1.15%	0.89%	1.60%	0.94%	-0.31%	-0.50%	-2.17%	-0.74%	-0.31%	-0.23%

Section II

Attachment II.D.2 – Orange County and Chapel Hill-Carrboro City Student Growth Rates (Chart dates from 2021-2031 based on 11/13/20 membership numbers) (2020-21)

2020-2021

Orange County Student Projections

Elementary

School Year	2020-2021 (actual)	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Membership	3,047	3,011	2,994	2,982	2,962	2,949	2,966	2,984	3,002	3,019	3,039
Average % Increase		-1.17%	-0.56%	-0.42%	-0.68%	-0.42%	0.59%	0.59%	0.59%	0.60%	0.65%

Middle

School Year	2020-2021 (actual)	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Membership	1,654	1,634	1,611	1,613	1,593	1,598	1,579	1,552	1,530	1,538	1,545
Average % Increase		-1.18%	-1.46%	0.13%	-1.18%	0.31%	-1.20%	-1.71%	-1.42%	0.50%	0.50%

High School

School Year	2020-2021 (actual)	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Membership	2,381	2,365	2,367	2,301	2,293	2,239	2,213	2,221	2,200	2,176	2,157
Average % Increase		-0.66%	0.09%	-2.80%	-0.32%	-2.36%	-1.18%	0.37%	-0.94%	-1.10%	-0.86%

Chapel Hill/Carrboro Student Projections

Elementary

School Year	2020-2021 (actual)	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Membership	4,893	4,808	4,708	4,685	4,655	4,634	4,666	4,698	4,731	4,759	4,782
Average % Increase		-1.73%	-2.09%	-0.48%	-0.65%	-0.45%	0.69%	0.69%	0.69%	0.59%	0.49%

Middle

School Year	2020-2021 (actual)	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Membership	2,917	2,874	2,830	2,747	2,671	2,601	2,558	2,511	2,473	2,489	2,505
Average % Increase		-1.49%	-1.52%	-2.94%	-2.76%	-2.61%	-1.68%	-1.83%	-1.51%	0.65%	0.65%

High School

School Year	2020-2021 (actual)	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	2029-2030	2030-2031
Membership	3,932	3,904	3,915	3,906	3,893	3,844	3,721	3,641	3,557	3,438	3,401
Average % Increase		-0.72%	0.28%	-0.21%	-0.35%	-1.27%	-3.20%	-2.15%	-2.29%	-3.35%	-1.10%

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

Section II

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

5. *Recommendation:*

No change at this time.

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

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, 2020 membership numbers used to develop a CIP to be considered for adoption in June 2021).

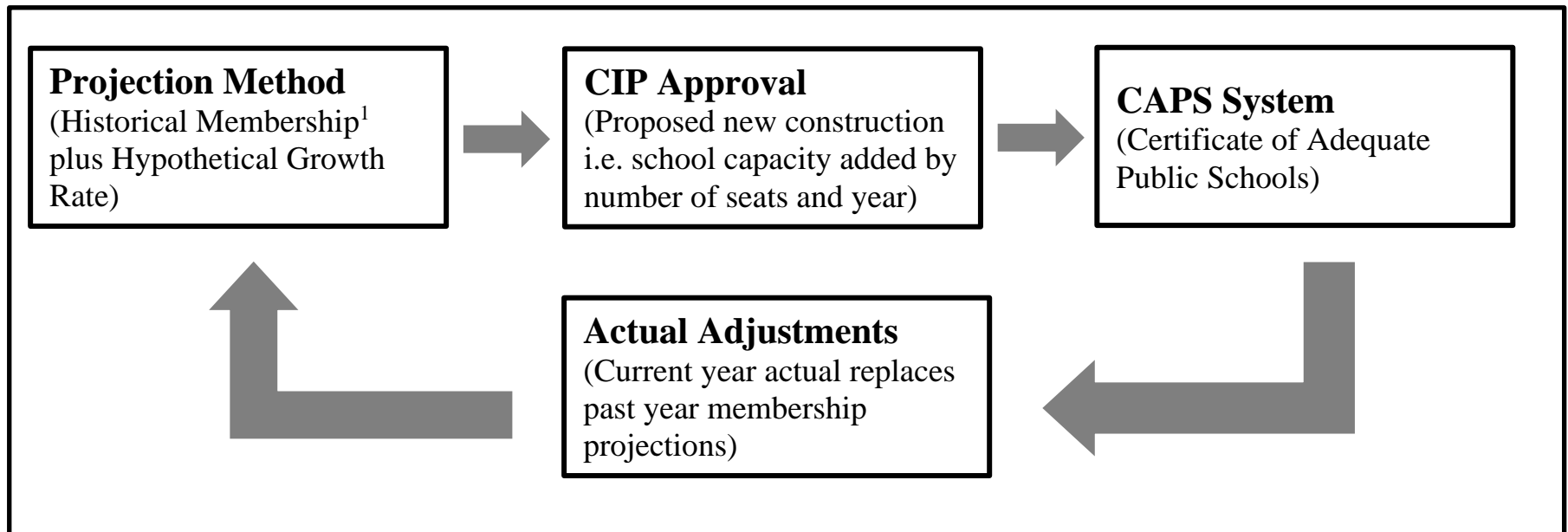
Process Framework

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.

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.

As previously noted in Section II.C, 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 /

Section III

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 2021 - 2031)

November 2019 – June 2020 (using 2020 SAPFOTAC Report)

SAPFO CAPS Process 2 (for SAPFO System 2021 – 2022)

November 2020 - November 2021

School Adequate Public Facilities Ordinance

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

2021 CAPS system is effective November 15, 2020 through November 14, 2021.

The system is updated with new membership, CIP capacity changes, and any other BOCC/School District joint action approved capacity prior to November 15, 2020. 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, 2020.

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