



## **Attachment A**

# **Cost of Services Assessment, Level of Service Standard and Advancement of Capacity Formula**

## **Franklin County Adequate Public Schools Ordinance (APSO)**

### **Franklin County Planning and Inspections Department**

**June 19, 2006**

### *Background*

On November 20, 2000, the Franklin County Board of Commissioners (Board) adopted a Comprehensive Land Use Plan (CLUP) for the County. Through stated goals and objectives, the CLUP, as authorized by North Carolina General Statutes (NCGS) 160A-383, represents the County's formal policy statement concerning land use and land development and the foundation of zoning, subdivision, and other regulations that put the goals and objectives of the land use plan into action.

The CLUP goal related to growth and development directs the County to "manage the physical development of Franklin County to protect its resources, preserve its rural atmosphere, and simultaneously promote industrial and retail growth" (page V-2). One of the implementing strategies associated with this goal (4(b)) is to "consider adopting performance standards to encourage development at a rate that parallels the availability of infrastructure and services".

One of the ways in which the County has chose to implement the aforementioned CLUP goal is through adoption of an Adequate Public Schools Ordinance (APSO). The APSO is designed to prevent a community's growth from outpacing its' ability to provide necessary public facilities to serve that growth (Source: *Adequate Public Facility Criteria: Linking Growth to School Capacity*, School Law Bulletin, Winter, 2003).

Specifically, the County is attempting to ensure that public school capacity is available concurrent with new development, or within a reasonable and specified period of time after new development occurs. This goal will be achieved by assessing the likely impact of all new development on school capacity in the school attendance district where the new development is located. If the new development is projected to create an exceedance of the established level of service (LOS), defined as the school capacity determined to establish the adequacy of school facilities, or if LOS is already exceeded based on current "membership" (i.e.: enrollment) at each school, the developer has two options:

- A) Wait to receive a final subdivision approval or development permit until the Franklin County Schools Long Range Plan (LRP) indicates that school capacity will be created in that district; or
- B) Pay a voluntary contribution towards capacity, known as an "advancement of capacity" (AOC). The AOC is intended to partially offset the cost of new capital facility provision and will be allocated to reserve accounts dedicated to retiring bond debt or directly constructing new school capacity in the allocation area for which it was collected.

The purpose of this document, therefore, is to establish the methodological basis of

- A) The LOS that will specify when the APSO is applicable; and
- B) The basis for AOCs to be provided in cases where LOS is exceeded

### *Level of Service (LOS) Standard*

The Franklin County APSO will only be applicable when the capacity of an elementary, middle or high school facility is likely to be exceeded by the impact of a proposed development. This capacity determination is defined as the “level of service” (LOS) for public school facilities in the County.

For the purpose of establishing LOS, the County will utilize the “committed capacity” of the schools, versus the existing capacity. “Committed capacity” is defined as a) “existing capacity,” or students attending each Franklin County Public school as of October, 2005; and b) “reserved capacity,” or students projected to be attending Franklin County Public Schools through 2015 from properties exempted from compliance with the APSO.

Franklin County will rely on the existing capacity determinations referenced in the Franklin County Schools (FCS) Long Range Facility Needs Survey (LRP), which is, in turn, based on standards for elementary, middle and high schools established by the North Carolina Department of Public Instruction (DPI). These capacity figures exclude modular structures and make numerous assumptions about what constitutes useable classroom space versus ancillary areas. The County believes that DPI, the State Board of Education and FCS have developed a reasonable methodology for establishing capacity and we are relying on their assumptions regarding facility capacity.

The County will establish reserve capacity by calculating a per lot student generation rate from the following types of properties exempt from the APSO provisions:

- A) Building permits approved for residential units on lots not located in subdivisions; and
- B) Building permits approved within one (1) year of APSO adoption for residential units in major and minor subdivisions that received preliminary development approval and/or final development approval prior to APSO adoption

This reserved capacity will be calculated on a monthly basis in a report to the County Manager by the Planning Director or designee. Existing capacity will be revised on a monthly basis (on the 30<sup>th</sup> day of each month) based on information received from Franklin County Schools (FCS) and reported to the County Manager or designee.

Table 1: FCS Capacity Summary and APFO Applicability

School Name	Average Daily Membership (i.e.: Attendance) – 2005 / 2006 School Year	Capacity as established by FCS	Available Capacity	APSO Currently Applicable?

Franklin County APSO Conceptual Model and Formula

Bunn Elementary	629	734	105	No
Edward Best Elementary	460	458	-2	Yes
Franklinton Elementary	591	636	45	No
Laurel Mill Elementary	300	386	86	No
Louisburg Elementary	448	640	192	No
Royal Elementary	615	608	-7	Yes
Youngsville Elementary	650	662	12	No
Bunn Middle School	673	785	112	No
Cedar Creek Middle School	687	785	98	No
Terrell Lane Middle School	571	785	214	No
Bunn High School	909	750	-159	Yes
Franklinton High School	724	795	71	No
Louisburg High School	679	710	31	No
TOTAL	8,011	8,834	N/A	N/A

Source: Franklin County Schools

Capacity estimates will be updated yearly upon receipt by the County of the Month 03 Report Summary of the Principal's Monthly Report, using Total Membership data provided by each school.

*Advancement of Capacity (AOC) Contribution Methodology*

As stated above, the AOC is intended to partially offset the cost of new capital facility provision and will be allocated to reserve accounts dedicated to retiring bond debt or directly constructing new school capacity in the allocation area for which it was collected. It is a voluntary contribution. The following describes the methodology for computation of the County’s AOC and provides background data associated with AOC development.

*Building Costs per Square Foot*

Ken Phelps with DPI has estimated the per square foot cost of new school construction as \$128.30. This figure is used by FCS in its LRP Facility Needs Survey (FNS) development. DPI has extensive data and analysis to support this cost estimate.

For renovations and additions, the per square foot cost varies based on the type of facility being renovated/added to, ranging from \$122.40 per square foot for classrooms without any significant technological capabilities and/or ancillary facilities (e.g.: ability to support computers, science equipment, etc.) to \$204.00 per square foot for auditorium facilities. For purposes of AOC calculation, the conservative new construction figure of \$128.30 per square foot will be used.

The above cost figures are extremely conservative because they do not include the cost of land, site development, administrative and design fees, furnishings and equipment or any staff/operations costs.

*Square Footage Required Per Student*

DPI has also developed average school facility square footage requirements per student, based on detailed assessments of educational facility space requirements. These space requirements are found in Table 3 below:

Table 2: Average square footage requirements per student

School Facility Type	Square Footage Requirements per Student
Elementary	114
Middle	139
High	172

Source: DPI and FCS

*Estimated Cost of Providing Capacity to One New Student, per School Facility Type*

Based on the average square footage requirements per student and the per square foot cost of new construction and additions/renovations provided above, a simple calculation allows an estimated cost of providing capacity to one new student by facility type, as reflected in Table 4 below:

Table 3: Estimated Cost of Providing Capacity to One New Student, by Facility Type

Facility Type	Cost per Square Foot for Addition or New Construction	Square Footage Requirement per Student	Cost of Capacity Provision per Student
Elementary	\$128.30	114	\$14,626.20
Middle	\$128.30	139	\$17,833.70
High	\$128.30	172	\$22,067.60

Source: DPI and FCS

*Estimated Students per Housing Unit*

Based on E-911 address point data created by the County, there are 27,863 housing units in the County as of February, 2006, including the municipalities. There are 8,011 students in Franklin County public schools as of month 3 of the 2005-2006 school year (total membership), based on ADM data provided by FCS. In other words, there are approximately .288 students per housing unit, on average, rounded to .29. These .29 students can be allocated to elementary, middle and high school levels as follows: .14 elementary school students per house, .07 middle school students per house, .08 high school students per house. Table 4 depicts the school-by-school computation of the average number of students per housing unit. The aforementioned allocations are based on the average students per housing unit per facility type (i.e.: elementary, middle and high).

Table 4: Housing Units and ADM by School Attendance Districts, Franklin County

School Name	Average Daily Membership (i.e.: Attendance) – 2005 / 2006 School Year	Housing Units in Attendance District	Students per Housing Unit
Bunn Elementary	629	4,097	0.154
Edward Best Elementary	460	4,074	0.113
Franklinton Elementary	591	4,332	0.136
Laurel Mill Elementary	300	3,088	0.097
Louisburg Elementary	448	4,352	0.103
Royal Elementary	615	3,523	0.175
Youngsville Elementary	650	4,399	0.148
Riverside Elementary Magnet	75	N/A	N/A
Bunn Middle School	673	10,296	0.065
Cedar Creek Middle School	687	10,136	0.068
Terrell Lane Middle School	571	7,432	0.077

Bunn High School	909	10,296	0.088
Franklinton High School	724	10,136	0.071
Louisburg High School	679	7,432	0.091
TOTAL	8,011	27,863	0.288

*Cost of One Unit of New Capacity per Housing Unit*

Based on the estimated cost of providing capacity to one new student by facility type, and the estimated students per housing unit by facility type (provided above), the cost of one new unit of school capacity by housing type and school facility type can be estimated, as reflected in Table 6.

Table 5: Cost of One Unit of New Capacity per Housing Unit by School Facility Type

School Type	Cost of One New Unit of Capacity	Students per Household	Cost of One Unit of New Capacity per Housing Unit (Construction Costs only)
Elementary	\$14,626.20	.14	\$2,048
Middle	\$17,833.70	.07	\$1,248
High	\$22,067.60	.08	\$1,765
TOTAL	N/A	.29	\$5,061

*Ways in Which this Analysis of School Costs is Extremely Conservative*

The above analysis of costs associated with new school capacity creation is extremely conservative, for the following reasons:

- School construction and additions are commonly paid for by the issuance of bonds, which require interest repayment over an extended period of time. The above calculation does not consider interest costs which average 25% of capital costs (source: Charles Murray, County Finance Director).
- Land costs are not included. Land costs are a very substantial and growing portion of overall school capacity expansion. DPI recommends a minimum of 16 acres for a new elementary site, 23 acres for a new middle school site and 42 acres for a high school site. Assuming an average capacity of 650 students for an elementary school, 785 students for a middle school and 1,200 students for a high school (Source: DPI), and presuming a conservative per acre cost of \$20,000 per acre, land costs per elementary student would be \$492.00, \$586.00 per middle school student and \$700.00 per high school student.

- Site development costs such as grading and filling and extension of water and sewer facilities to the school site are omitted. According to DPI, these normally are equivalent to 6% of building costs.
- Furnishings and equipment costs are excluded. These normally represent an amount equivalent to 9.4% of building costs, according to DPI.
- Administrative oversight and site design costs, including architectural and engineering fees associated with new school construction are excluded. These normally represent an amount equivalent to 7% of building costs according to DPI.
- Contingent costs, such as unexpected construction problems or site improvement costs normally represent an amount equivalent to 4% of building costs according to DPI. These have been excluded from the above analysis.
- No school operation, maintenance, health services, student food programs, transportation or staffing (e.g.: teachers and administrators) costs are included. Local (i.e.: not funded by State or Federal proceeds) school operation costs in 2005 were \$1,135 per student, for example (Source: Doug Moore, Franklin County Schools).

Table 6: Estimated per Housing Unit Costs for Creation of One (1) Unit of New School Capacity (Assuming New Construction)

Cost	Estimated per Housing Unit Cost for Creation of One Unit of New School Capacity	Percentage of Building/Construction Costs
Building/Construction Costs	\$5,061	N/A
Interest on Bond Debt Associated with Facility Construction	\$1,265	25%
Land Costs	\$167	3.3%
Site Development Costs (e.g.: water and sewer improvements)	\$304	6%
Furnishing and Equipment	\$476	9.4%
Site Design and Administrative Oversight	\$354	7%
Contingency	\$202	4%
Local (i.e.: non-State and Federal) Cost of Operations, Maintenance and Support (12 years)*	\$3,950	78%
TOTAL	\$11,779	N/A

\* = \$1,135 per student \* .29 students per household \* 12 years

In conclusion, only 66% (i.e.: \$5,061 of \$7,662) of all capital and related costs associated with school capacity creation are considered in developing the County's AOC. When local operations, maintenance and support costs are considered, this figure drops to 43% (i.e.: \$5,061 of \$11,779).

*Homeowner Credits and Recommended AOC*

The above analysis does not consider cost offsets to ad valorem taxation from lottery revenues, sales tax collected, and other State/Federal funding for School Capital Facilities. Due to the likelihood of these revenues being received by the County, and the fact that they are not reasonably related to new residential construction, credits should be given for anticipated funds from these sources that will go towards School Capital Funding. Calculation of this credit is depicted in Table 7.

Table 7. Calculation of State Contribution Offset

Estimated Capital Costs of School Construction Through 2014-2015 to Add New Capacity (Source: Franklin County Schools LRP)	\$73,000,000
Projected Lottery Proceeds Through 2014-2015 (assumed to be dedicated to new Capital Facilities)	\$9,900,000
Public School Building Capital Fund Through 2014-2015 not allocated to existing facilities needs and other earmarked expenditures	\$278,609
Sales Tax Earmarks for New Capital Facilities Through 2014-2015 not allocated to existing facilities needs and/or other earmarked expenditures	\$1,058,280
% of Total Capital Costs Projected to be Paid Through State Offsets	15.39%

Source: Franklin County Finance Office

Additionally, “front-end” funding of school capacity that will be provided by AOC payments present the potential of “double payment” of capital costs due to future principal payments on existing General Obligation bonds for schools. Calculation of this credit is depicted in Table 8. A credit is not necessary for interest payments because interest costs were not included in the calculation of the AOC.

Table 8. Calculation of Principal Payment Credit

Fiscal Year	Principal Debt	Projected Property Tax	Projected Earmarked Sales Tax	Net Property Taxes	Debt as % of Property Taxes	Estimated Average Yearly Tax Payment of Residential Unit	Credit for Existing Debt
2007	\$1,951,947	\$27,522,312	\$2,500,000	\$25,022,312	7.80%	\$1,106	\$86
2008	\$1,945,261	\$28,623,205	\$2,500,000	\$26,123,205	7.45%	\$1,150	\$86
2009	\$1,980,087	\$29,768,133	\$2,500,000	\$27,268,133	7.26%	\$1,196	\$87
2010	\$2,006,505	\$30,958,858	\$2,500,000	\$28,458,858	7.05%	\$1,244	\$88
2011	\$2,034,601	\$32,197,212	\$2,500,000	\$29,697,212	6.85%	\$1,294	\$89
2012	\$2,064,464	\$33,485,101	\$2,500,000	\$30,985,101	6.66%	\$1,346	\$90
2013	\$2,096,188	\$34,824,505	\$2,500,000	\$32,324,505	6.48%	\$1,399	\$91
2014	\$2,124,874	\$36,217,485	\$2,500,000	\$33,717,485	6.30%	\$1,455	\$92
2015	\$2,155,624	\$37,666,184	\$2,500,000	\$35,166,184	6.13%	\$1,514	\$93

Franklin County APSO Conceptual Model and Formula

2016	\$1,341,667	\$39,172,832	\$2,500,000	\$36,672,832	3.66%	\$1,574	\$58
2017	\$1,336,667	\$40,739,745	\$2,500,000	\$38,239,745	3.50%	\$1,637	\$57
2018	\$1,055,000	\$42,369,335	\$2,500,000	\$39,869,335	2.65%	\$1,703	\$45
2019	\$795,000	\$44,064,108	\$2,500,000	\$41,564,108	1.91%	\$1,771	\$34
2020	\$575,000	\$45,826,673	\$2,500,000	\$43,326,673	1.33%	\$1,842	\$24
<b>TOTAL CREDIT</b>							\$1,018

Source: Franklin County Finance Office

\* = Assumes \$140,000 tax value and .79 tax rate, at 4% growth per year

Therefore, the recommended AOC is the construction cost of one unit of new school capacity per housing unit (see Table 5 above), less credit for principal payments on existing bond debt and less credit for anticipated State revenue offsets to the County's anticipated capital costs for school facility construction.

Table 9. Recommended AOC

School Type	Cost of One Unit of New Capacity per Housing Unit (Construction Costs only)	15.39% Credit From New (Post-2005) State Revenue Sources	Principal Payment Credit from Table 8 Above	<b>Recommended AOC</b>
Elementary	\$2,048	\$376	\$492	<b>\$1,180</b>
Middle	\$1,248	\$188	\$246	<b>\$814</b>
High	\$1,765	\$215	\$281	<b>\$1,269</b>
<b>TOTAL</b>	<b>\$5,061</b>	<b>\$779</b>	<b>\$1,019</b>	<b>\$3,263</b>

*Updates and Revision to AOC*

The data and methodology for AOC development shall be reviewed at least annually, starting on the first anniversary of the adoption date of the APSO, to ensure accuracy and fairness.