Fairfax County PUBLIC SCHOOLS
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Department of Facilities and Transportation Services
8115 Gatehouse Road, Suite 3300
Falls Church, Virginia 22042-1203

October 13, 2016

TO: Peter F. Murphy, Chairman
Fairfax County Planning Commission

Fred Selden, Director
Fairfax County Department of Planning and Zoning

Barbara C. Berlin, Director
Fairfax County Zoning Evaluation Division, DPZ

FROM: Jeffrey Platenberg, Assistant Superintendent
Fairfax County Public Schools

SUBJECT: School Impact Proffer Formula and Student Yield Ratio Update

Periodically, the Office of Facilities Planning Services reviews and updates the suggested per student proffer contribution and student yield ratios. The per student proffer contribution is based on the FCPS Public Facilities Impact Formula and the related implementation of the Fairfax County Comprehensive Plan, Public Facilities Residential Development Criterion, that became effective on January 7, 2003. Pursuant to the implementation of the Public Facilities Criterion, it was anticipated that periodic updates and adjustments to the methodology be provided in order to reflect changes in student yield ratios by unit type and changes in capital construction costs. This includes changes to school capacity, changes in construction costs for elementary, middle, and high school buildings and modular construction costs. The methodology does exclude costs associated with land, fees, and equipment.

Using the adopted methodology, the suggested per student proffer contribution has increased from $11,749 to $12,262. The increase is primarily attributable to increasing construction costs. FCPS recommends that the new proffer amount of $12,262 become effective for all applicable residential rezoning applications accepted on or after November 1, 2016. For ease of reference, the proffer formula and calculations are attached.

In addition to the change in the suggested per student proffer contribution, the student yield ratios used to calculate the suggested proffer contribution have changed. This change reflects the current ratios generated by matching September 30, 2015, student data to 2015 housing counts by unit type. These updated ratios will be used to calculate the potential student yield for new residential development and the suggested school cash proffer amount beginning November 1, 2016.

The updated countywide student yield ratios from 2015-16 are as follows:

Single Family Detached	.266 Elementary .088 Middle .179 High .533 Total	**Low-rise Multi-family** (≤ 4 stories)	.188 Elementary .047 Middle .094 High .329 Total
Single Family Attached (Townhouse)	.258 Elementary .067 Middle .137 High .462 Total	**Mid/High-rise Multi-family** (> 4 stories)	.062 Elementary .019 Middle .031 High .112 Total

To generate the new student yield ratios for school year 2015-16, housing information was obtained from the Integrated Parcel Life-Cycle System (IPLS) data layers that contain housing information by unit type from Fairfax County's Department of Neighborhood and Community Services. The City of Fairfax also provided GIS parcel data along with associated dwelling information. Similarly, Fort Belvoir's GIS Division provided housing data for the residential villages on post. Individual student addresses from the FCPS student information system were then matched to specific dwelling types. The SY 2015-16 student yield ratios for Single Family Attached saw the biggest change over the SY 2014-15 ratios. For reference, historic student yield ratios are attached.

Since the methodology used to derive the proffer contribution is based, in part, on current construction costs, and that actual development and construction may not begin for some period of time after rezoning approval, FCPS continues to recommend that an escalation clause be included as part of any monetary school proffer contribution. Many developers have provided appropriate proffer language to address the potential changes in the adopted proffer formula so that when the proffer trigger is reached, the developer contribution is based on the then current student yield ratios and/or contribution formula and suggested proffer amount.

If you have any questions, please feel free to contact Kevin Sneed, Special Projects Administrator, Capital Projects and Planning, 571-423-2280.

JP/ks/dwp
Attachments (Proffer Calculation, Historic Proffer and Ratio Trends, Ratios by School Level)

cc: Edward Long, County Executive, Fairfax County
Karen Garza, Superintendent, FCPS
FCPS School Board Members
Susan Quinn, Chief Operating Officer
Kevin Sneed, Special Projects Administrator, Capital Projects and Planning
Warren Jenkins, Director, Administrative Services
Aimee Holleb, Director, Facilities Planning Services

Attachment 1: Proffer Contribution Calculation (August 2016)

Building Construction Costs

Construction costs for ES, MS, & HS:

$217 x 99,937 sf = $22,242 cost per ES student
975 capacity

$221 x 176,824 sf = $31,262 cost per MS student
1,250 capacity

$230 x 377,457 sf = $34,726 cost per HS student
2,500 capacity

Weighted average = **$25,104** cost per student

Adjustment - Modular Construction Cost

Construction cost offset by modular:
$25,104 (Weighted average)
x **0.042** (School capacity provided by modular multiplier)
= **$1,054**

Construction cost of modular:
$1,054 (Construction cost offset by modular)
x **0.45** (Cost of modular multiplier)
= **$474**

Cost per student after modular adjustment:
$25,104 (weighted average)
- $1,054 (Construction cost offset by modular)
+ $474 (Construction cost of modular)
= $24,524

Adjustment - Level of Service (LOS)

Cost per student after level of service adjustment:
$24,524 (Cost per student after modular adjustment)
x 0.5 (LOS multiplier)
= $12,262 (Recommended Contribution)

Explanation for "Weighted average":

	Cost per student		# of school buildings	Total
ES	$22,242	x	140	3,113,880
MS	$31,262	x	26	812,812
HS	$34,726	x	25	868,150
Total			191	4,794,842

4,794,842 / 191 = **25,104** weighted average cost per student

Explanation for "School capacity provided by modular multiplier":

Total Program Capacity	
ES, MS, HS	184,809
Modular	7,770

7,770 / 184,809 = **0.042** Modular Capacity Multiplier

Explanation for "Cost of modular multiplier":
Cost of modular construction is 45% of what permanent construction costs = **0.45**

Explanation for "LOS multiplier":
Average age of buildings/Life expectancy of buildings
25/50 = **0.5**

Attachment 2: Historic Countywide Student Yield Ratios and Proffer Contribution (August 2016)

Letter Date	School Year Student Data	Effective Date	Proffer (1)	SFD Ratio (2)	SFA Ratio (2)	MF(LR) Ratio (2)	MF(MR/HR) Ratio (2)	Notes
June 13, 2002	2001-2002	January 7, 2003	$ 7,500	0.473	0.372	0.227	0.102	Baseline for Public Facilities Res. Dev. Criteria
May 22, 2006	2005-2006	June 1, 2006	$ 11,630	0.479	0.356	0.199	0.076	
June 28, 2007	2006-2007	July 1, 2007	$ 12,400	0.480	0.348	0.193	0.078	
October 15, 2008	2007-2008	November 1, 2008	$ 11,548	No Change to Ratios (Transition from DIT to FTS)				
July 22, 2009	2008-2009	September 1, 2009	$ 9,378	0.531	0.379	0.234	0.087	Facilities Planning Begins Calculation of Ratios
August 24, 2012	2011-2012	September 1, 2012	$ 10,488	0.531	0.440	0.291	0.110	
September 18, 2013	2012-2013	September 1, 2013	$ 10,825	0.536	0.430	0.302	0.106	
November 20, 2014	2013-2014	December 1, 2014	$ 11,749	0.530	0.441	0.325	0.100	
September 8, 2016	2015-2016	October 1, 2016	$ 12,262	0.533	0.462	0.329	0.112	

1) Proffer is per-student contribution recommendation

2) Ratios are countywide averages

Attachment 3: Comparison of Student Yield Ratios By School Level (Updated August, 2016)

	2001-02	2005-06	2006-07	2008-09	2011-12	2012-13	2013-14	2015-16
Single Family Detached								
Elementary	0.244	0.239	0.239	0.266	0.268	0.273	0.270	0.266
Middle	0.070	0.070	0.069	0.084	0.085	0.086	0.085	0.088
High	0.159	0.170	0.172	0.181	0.178	0.177	0.175	0.179
Total	**0.473**	**0.479**	**0.480**	**0.531**	**0.531**	**0.536**	**0.530**	**0.533**
Single Family Attached (townhouse)								
Elementary	0.210	0.194	0.190	0.204	0.249	0.243	0.252	0.258
Middle	0.053	0.052	0.050	0.057	0.063	0.060	0.062	0.067
High	0.109	0.110	0.108	0.118	0.128	0.127	0.127	0.137
Total	**0.372**	**0.356**	**0.348**	**0.379**	**0.440**	**0.430**	**0.441**	**0.462**
Low Rise Multi-family (≤ 4 stories)								
Elementary	0.137	0.114	0.109	0.136	0.173	0.181	0.194	0.188
Middle	0.030	0.026	0.025	0.032	0.040	0.042	0.046	0.047
High	0.060	0.059	0.059	0.066	0.078	0.079	0.085	0.094
Total	**0.227**	**0.199**	**0.193**	**0.234**	**0.291**	**0.302**	**0.325**	**0.329**
Mid/High-rise Multi-family (> 4 stories)								
Elementary	0.063	0.042	0.043	0.047	0.059	0.059	0.056	0.062
Middle	0.011	0.010	0.011	0.013	0.019	0.017	0.016	0.019
High	0.028	0.024	0.024	0.027	0.032	0.030	0.028	0.031
Total	**0.102**	**0.076**	**0.078**	**0.087**	**0.110**	**0.106**	**0.100**	**0.112**

Source Data for 2015-16:

Fairfax County GIS Department: January 1st 2015 Housing Unit Data (IPLS)

Fairfax City GIS Office: January 1st 2016 Housing Unit Data

FCPS DIT: September 30th 2015 Student Data (SIS)

Updated: 8/30/2016