County of Spotsylvania

Proffer Guidelines

Adopted by the Spotsylvania County Board of Supervisors
October 13, 2015

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Not Applicable to Residential Rezoning Applications Submitted on July 1, 2016 or After

I. INTRODUCTION

Spotsylvania County is considered a high growth community and, therefore, is eligible to accept cash as well as in-kind dedications that are voluntarily offered by a developer (Code of Virginia Sec. 15.2-2303). This guide describes policies approved by the Spotsylvania County Board of Supervisors for the evaluation of proffers submitted by developers for any rezoning request. One of the Guiding Principles in the County's Comprehensive Plan is that the County is fiscally sustainable with a policy that development projects seeking increased residential density should preserve and enhance the quality of infrastructure in the County. Maintaining public service levels as population increases requires investment in additional public facilities to meet the needs of additional citizens. New development should contribute to the cost of County provided facilities proportionate to the demand it will make on those public facilities.

This guide includes general guidelines applicable to all rezoning requests, as well as detailed information on submission standards and evaluation methods for specific types of proffer contributions. Proffers are made voluntarily and proffer statements are written at the discretion of the applicant. The capital facility costs are broken down per unit for each housing type (single-family detached, single-family attached or townhouse, multi-family or apartment, and age-restricted). The capital facility costs are calculated as described in this guide and include those related to public safety & general government, transportation, parks & recreation, libraries, schools, and solid waste management.

It is important to note that the provision of public facility payments, and/or the provision of public facility infrastructure, to the extent necessary to demonstrate a proportionate share contribution is only one consideration in the evaluation of rezoning proposals. The Comprehensive Plan notes several important goals for the development of the County which should be considered. These include the availability of market rate affordable housing, the ongoing fiscal impact of development, support for transit and transit oriented development, the provision of multi-modal transportation opportunities, and the provision of cultural and tourism opportunities. In cases where these less tangible goals of the Comprehensive Plan are being met within a development, staff will recognize the benefits to the community in the staff report and, where appropriate, work with the applicant to assign a value to them, although that value may not count as a credit toward the Public Facility Costs.

II. GENERAL GUIDELINES

The following guidelines and policies are applicable to all proffer statements:

1. Proffer statements should follow the format outlined in Appendix A of this guide and proffer calculations should be in the table formats shown in Appendix B.
2. The proffer statement shall be signed by the property owner or agent with power of attorney and notarized. Any revisions should be updated with a "last revised" date and submitted with an accompanying version showing changes tracked and the document.
3. Development shall be proffered in "conformance" (as defined in Sec. 23-4.6.3(7) of the Zoning Ordinance) with the Generalized Development Plan and other proffered exhibits.

4. All exhibits shall be incorporated by reference in the proffer statement and attached as an exhibit.
5. Pursuant to the bylaws of the Planning Commission and Board of Supervisors, depictions and illustrations that are not proffered shall not be presented as representative of the project.
6. A proffered condition must clearly and concisely describe its objective. This clarity of meaning is critical to avoid difficulty in future interpretation.
7. A proffer specifying monetary contributions and/or land dedications should state the purpose of the contribution and that the contribution is to the Spotsylvania County Board of Supervisors (or other entity as applicable).
8. Wording and terminology should be consistent throughout the document.
9. No wording shall be included in the proffer statement that reduces the Board of Supervisor's ability to accept only a portion of the proffered conditions.
10. A proffered condition should state the circumstances of its performance, including the time frame in which it will be performed. The timing must be related to easily understood, discrete events (i.e. recordation of a section, a specific date, etc.).
11. A proffered condition that restates an existing federal, state or county requirement should be done only for the purposes of providing clarification or specificity, and should not be presented in a manner in which the applicant receives credit for the proffer. A proffered condition that reduces existing federal, state, or county standards will not be accepted.
12. A credit may be applied to the Public Facility Costs for any residential development potential (by-right) under the existing zoning. When a by-right credit is applied, the total cash proffer should be divided evenly among all the proposed units of the same type so that each unit has an equal proffer payment.
13. Circumstances may warrant deviation from the Public Facility Cost categories and/or calculations. It is the applicant's responsibility to make the case why a proposal warrants deviation from the Public Facility Costs calculation (i.e. large single-family detached residential proposal that includes construction of a school in an area with a near-term school need).
14. In some cases, infrastructure improvements may be proffered that serve the proposed development but also provide additional benefits or capacity beyond what is needed by the development. In these cases, staff shall work with the applicant to identify the value of the improvement or improvements that are eligible for credit against the Public Facilities Costs calculation. Improvements required or needed for a development that do not provide additional benefits or capacity beyond what is needed by the development are not eligible for credit against the Public Facility Costs calculation (i.e. a new road needed to serve a development, required sidewalks or landscaping, etc.).
15. This proffer guide shall be reviewed and updated each year following the methodology outlined in Appendix C.

III. PUBLIC FACILITY COSTS

The following tables show the projected cost in current dollars of public facilities needed to support each new residential unit by type. The public facility costs associated with a rezoning proposal should be calculated using the following charts and submitted with the proposed mitigation detailed in the table formats in Appendix B. A developer may propose to mitigate public facility impacts through cash contributions and/or other in-kind contributions as described in Section IV. Age-restricted units may exclude the Schools cost from the calculation.

Facility	SFD	SFA	MF
Schools	$16,751	$16,492	$5,239
Public Safety & Government	$2,728	$2,162	$1,337
Transportation	$4,575	$3,627	$2,242
Parks & Recreation	$751	$596	$368
Solid Waste	$799	$634	$392
Libraries	$201	$159	$99
Total	**$25,805**	**$23,670**	**$9,677**

IV. PROFFERED PUBLIC FACILITY CONTRIBUTIONS AND DEDICATIONS

Proffers may be offered to offset public facility costs in two ways: cash or in-kind contributions.

A. Cash Proffers

A cash proffer is a payment to the County based on a certain trigger. A common type is the *per unit* cash contribution in which a defined amount is paid upon occupancy permit for each residential unit. Another type of cash contribution is a lump sum payment with a trigger for payment.

The following policies apply to cash proffers:

1. The amount of the proffer payment and a payment schedule for any monetary contributions must be clearly defined in the proffer statement.

2. If per unit contributions are intended for specific facilities, the proffer statement must state so, otherwise language should be included that states the per unit cash contributions are to be used for public facility costs at the discretion of the Board of Supervisors.

3. The time between approval of a rezoning and the actual development or build out of

a site may be lengthy, diminishing the current dollar value of monetary proffers. Therefore, the proffer statement may account for inflation by adjusting the per unit contribution amount at regular intervals. It is recommended that the proffer amount be adjusted annually on January 1st to reflect any increase or decrease for the preceding year in the Consumer Price Index, U.S. City Average, All Urban Consumers (CPI-U) prepared and reported monthly by the U.S. Bureau of Labor Statistics of the United States Department of Labor.

B. In-Kind Proffers

An applicant may proffer other in-kind contributions to public facility needs to offset the capital costs associated with the development. The following policies apply:

1. If the in-kind improvement does not fully mitigate the development's calculated impact on public facilities, then the improvement's value may be applied as a credit against the development's calculated impact on the applicable public facility. In general, the credit cannot exceed the development's calculated impact on the applicable public facility. The applicant may provide justification for deviation from this policy and receive credit against other public facility categories.

2. Credit for community amenities included in the Public Facility Costs calculations such as, but not limited to fields, pools, or meeting space may be permitted if the facility lessens demand on County facilities. The credit shall not exceed the cost calculation for that facility shown in Appendix C.

3. Evidence shall be provided to support the value of any in-kind contribution for which the applicant wants to receive credit.

4. Land dedications shall be credited at the land value shown in Appendix C, or by an MAI appraisal if the applicant would like to justify a higher value.

5. An applicant may proffer the dedication of land for a public facility to offset the capital costs associated with the development. The following policies apply:

    a. The land dedication must meet minimum size requirements defined for the appropriate facility in the Public Facilities Element of the Comprehensive Plan, or the applicant must otherwise justify that the parcel is of a suitable size to meet the proposed need.

    b. The dedication value may be applied as a credit against the development's calculated impact on the applicable public facility. Generally, the credit cannot exceed the development's calculated impact on the applicable public facility. However, the applicant may provide justification for deviation from this policy and may receive credit against other public facility categories. All of the items below should be factored into the value assigned to the land proposed to be dedicated. Where exact information is not available, reasonable assumptions may be made to establish a value, as is done in an MAI appraisal. County staff will work with the applicant to determine if additional items are necessary to support the land dedication on a case-by-case basis.

- Current appraisal performed by a MAI certified appraiser;
- Topographical and boundary survey of the property to be proffered;
- Usable acreage exclusive of Critical Resource Protection Areas and jurisdictional wetlands.
- Information on known hazards such as proximity to power lines, industrial enterprises, or other potential hazards whether man-made or natural;
- Availability and capacity of gas service;
- Availability of three phase electrical service;
- A Level 1 Environmental Audit;
    - If a Level 1 Audit is performed for an entire site as a result of lender financing requirements, the audit findings may be accepted in lieu of performing a new Audit on the proffered land.
    - If the proffered land is found to have activities commonly associated with sub-surface contamination, a Level 2 Environmental Audit should be performed to identify sub-surface contamination or the County may refuse to accept the proffered land. If the County chooses to accept the proffered land, the applicant should be required to perform land remediation prior to public dedication.
- Preliminary geo-technical information;
- Phase I archaeological survey and report; and
- Endangered species survey and report.

APPENDIX A: RECOMMENDED PROFFER STATEMENT FORMAT

Applicant's name
Applicant's address
Rezoning Case #
Project name
Tax parcel number(s)
Address, if available

Date, with date of all revisions

I. General Information
Include an introductory statement that summarizes the rezoning request, acreage, uses, and other relevant general detail. State that the development of the property shall be in conformance with the proffered conditions. If a Generalized Development Plan or other graphics are proffered, they should also be incorporated by reference in this paragraph.

II. Next Heading
A. Detail proffer.
B. Detail proffer.
    1) Further detail.
    2) Further detail.

III. Next Heading
A. Detail proffer.
B. Detail proffer.
C. Detail proffer.
    1) Further detail.
    2) Further detail.

Etc.

Original signature Date
Type full name and title

Notary statement, signature, and date

Note: Proffers that supersede a previous proffer statement accepted under a different rezoning should include the previous case number in the heading after the current case number, clearly identifying that the current proffer statement supersedes the previous one.

APPENDIX B: FORMAT of PROFFER SUMMARY CHARTS

Two tables should be incorporated in the proffer statement. The first is a table that details any per unit proffered cash contributions payable at Certificate of Occupancy.

CASH AND IN-KIND PROFFERS					
	SF Detached	**SF Attached**	**Multi-Family**	**Age-Restricted**	**TOTAL**
Per Unit Cash Proffer	*$17,000* x *50*	*$17,200* x *80*	*$6,000* x *400*	*$0* x *0*	
TOTAL	*$850,000*	*$1,468,960*	*$2,400,000*	*$0*	*$4,626,000*

LUMP SUM AND IN-KIND CONTRIBUTIONS		
PUBLIC FACILITY CATEGORY		**TOTAL VALUE**
Schools		
Sheriff, FREM, Courts & Govt.	*$10,000 cash to FREM*	*$10,000*
Transportation	*$150,000 in-kind installation of traffic signal*	*$150,000*
Parks & Rec.		
Solid Waste		
Libraries		
TOTAL CASH & IN KIND PROFFER VALUE		*$4,786,000*

The second chart details the phasing of the development and the timing of various proffers, excluding per unit proffers. The timing must be keyed to easily understood, discrete events.

PROFFERED PHASING AND TIMING	
Phase or Contribution/Dedication	**Timing**
Cash contribution to FREM	*Prior to approval of Sec. 1 final plat*
Installation of traffic signal	*Prior to 100th residential occupancy permit*
Finaled permit for 120,000 sf office	*Prior to 200th residential occupancy permit*

Examples provided in italics for illustrative purposes only.

APPENDIX C: CAPITAL FACILITY CALCULATIONS

This appendix provides the methodology, assumptions, and source data for each capital facility category. The proffer guidelines shall be updated yearly upon approval of the Capital Improvements Plan and presented to the Board of Supervisors for adoption.

General Assumptions

Population: Source is the latest U.S. Census actual or estimate population number.

- July 1, 2014 U.S. Census estimate – 129,188

Housing Generation Rate: Source is the most recent U.S. Census American Community Survey 5 year estimates and Census Table B25124.

Single Family Detached	3.04
Single Family Attached	2.14
Multi-Family	1.49

Land Acquisition Costs: Source is average land cost based on sales of land 3-6 acres for smaller sites and 20+ acres for larger sites.

- 3-6 acre per acre: $33,830 (January 1, 2013 to September 2014)
- 20+ acre per acre: $18,409 (September 2012 to September 2014)

SCHOOLS

Assumptions/Sources:

- Student Generation Rate: Source is the Spotsylvania County Schools bus database merged with the County's Real Estate Database. Verified by calculating the resulting student generation rates by actual existing residential units and comparing the result to actual enrollment by school type.

	Elementary School	Middle School	High School	Total
Single Family Detached	0.258	0.131	0.183	0.572
Single Family Attached	0.307	0.129	0.145	0.581
Multi Family	0.094	0.039	0.051	0.183

- Assumed School Land Area:
  - Elementary – 20 acres
  - Middle – 50 acres
  - High – 70 acres
- Building Square Foot Cost – Virginia Department of Education *Annual Cost Data Report* (New School Construction) [exclude outliers]
- Square Foot Per Pupil – Virginia Department of Education *Annual Cost Data Report* (New School Construction)
- Estimated Capacity – Based on most recent schools built in Spotsylvania
- Land cost per acre: $18,409
- Design – Assumed at 10% of total building cost
- Fixtures and Equipment – Estimate based on most recent schools built in Spotsylvania
- Bus cost - Schools FY16-20 Capital Improvement Plan

Formula:

1. Multiply the Building SF Cost by the SF Per Pupil by the Estimated Capacity for the Total Building Only Cost.
2. Add the Total Building Only Cost, Land Cost, Design, and F&E for the Total Cost.
3. Divide the Total Cost by the Estimated Capacity for the Cost per Student.
4. Add the Cost Per Student and the Bus Cost per Student for the Total Cost per Student.
5. Multiply the Total Cost per Student by School Type by the Student Generation Factor for each unit type to determine the estimated cost per unit type.

	Bldg SF Cost	SF Per Pupil	Est. Capacity	Total Bldg Only Cost	Land Cost	Design	F&E	Total	Cost per Student
Elementary	$150	120	936	$16,848,000	$368,180	$1,684,800	$2,000,000	$20,900,980	$22,330
Middle	$163	168	948	$25,960,032	$920,450	$2,596,003	$2,000,000	$31,476,485	$33,203
High	$185	158	1,995	$58,313,850	$1,288,630	$5,831,385	$3,000,000	$68,433,865	$34,303

Cost for 77 passenger school bus - $119,826 = $651 Bus cost per student
Average bus runs per day x # passengers - 2.39 x 77

Type	Total Cost per Student	Single Family Detached		Single Family Attached		Multi Family	
		SGF	Cost/Unit	SGF	Cost/Unit	SGF	Cost/Unit
Elementary	$22,981	0.258	$5,922	0.307	$7,060	0.094	$2,160
Middle	$33,854	0.131	$4,425	0.129	$4,353	0.039	$1,307
High	$34,954	0.183	$6,404	0.145	$5,079	0.051	$1,772
Total Cost			**$16,751**		**$16,492**		**$5,239**

	Single Family Detached (SFD)	Single Family Attached (SFA)	Multi Family (MF)
Estimated Per Unit Impact on Schools	**$16,751**	**$16,492**	**$5,239**

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PUBLIC SAFETY AND GOVERNMENT

Assumptions/Sources:

- Uses current Levels of Service
- Based on primary existing government buildings less unoccupied space & space paid for by State
- No land acquisition costs except for fire stations since it is assumed that new government buildings will be constructed on county owned land
- Building Costs per square foot from most recent edition of RSMeans
- Site work cost per square foot based on 20% of building construction only cost
- Furniture, Fixtures & Equipment (FFE) based on most recent County buildings
- General Government, Judicial and Public Safety (except fire stations) facility costs are based on a blended cost of the various building types
- Fire station size based on FS 11
- Fire station acreage based on average of most recent urban and rural fire stations and cost based on $33,830 per acre.
- Cost of equipment for the fire station is based on the estimate for FS11

Formula:

General Government, Judicial, and Public Safety-

1. Add square footage of existing buildings in General Government, Judicial, and Public Safety categories (not including fire stations).
2. Add FF&E, Building, and Site Work square footage costs to determine total square footage cost by building category.
3. Multiply that total by the percentage of space represented by that building type (determined by dividing the Subtotal for each building type by the Total square footage for all buildings) to determine a share cost for each building type.
4. Add the share costs to result in a blended square footage cost for General Government, Judicial, and Public Safety buildings.
5. Divide total square footage by population to determine existing level of service.
6. Multiply the level of service by the blended cost to determine a cost per citizen.

Fire Station-

1. Add land acquisition, site work, construction, and equipment costs to determine total cost.
2. Divide cost by population to determine cost per citizen.

Add the General Government, Judicial, and Public Safety and Fire Station costs per citizen to determine a total cost per citizen and then multiply the cost per citizen by the population generation factor for each housing type to determine the estimated per unit cost.

General Government, Judicial, and Public Safety-

Existing Buildings	Size (SF)
Holbert Building (less Health Department space)	32,124
Marshall Center (less Senior/Teen Center, auditorium, library & gym)	55,091
County Attorney	2,325
Voter Registration	1,890
Merchant's Square Building (less 50% of State DSS share/1st floor)	36,330
Court Services Unit	4,742
Old Sheriff's Office	4,233
Animal Shelter	8,686
Magistrate's Office	1,500
Subtotal General Government	*146,921*
Judicial Center	49,218
Circuit Court Building	58,112
Subtotal Judicial	*107,330*
Subtotal Public Safety Building	*60,724*
Total Square Footage	**314,975**
Population	129,188
Blended Cost (per square foot):	$221
Level of Service (square feet per capita)	x 2.44
General Government, Judicial, & Public Safety Cost per citizen	$538

General Government:
$20.00 FF&E
$145.06 SF Building Cost
+ $29.01 Site Work
$194.07 x 0.47 = $90.52

Judicial:
$27.65 FF&E
$191.32 SF Building Cost
+ $38.26 Site Work
$257.23 x 0.34 = $87.65

Public Safety:
$40.73 FF&E
$150.14 SF Building Cost
+ $30.03 Site Work
$220.90 x 0.19 = $42.59

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Fire Station-

Land Cost	$156,971		Site acreage	4.64
Estimated Construction Cost	$2,611,571		Building SF cost	$199.86
Site work	$522,314		Station size (SF)	13,067
Cost of Equipment	+ $1,350,000			
Total Cost	$4,640,856			
Number of citizens served	12,919			
Station cost per citizen	$359			

General Government, Judicial, & Public Safety Cost per citizen	$538			
Station cost per citizen	+ $359			
Total Cost per Citizen:	$897			

	Single Family Detached (SFD)	**Single Family Attached (SFA)**	**Multi Family (MF)**
Population Generation	**3.04**	**2.41**	**1.49**
Estimated per unit impact on Public Safety & Government	**$2,728**	**$2,163**	**$1,337**

TRANSPORTATION

Assumptions/Sources:

- Based on most recent adopted Capital Improvement Plan transportation projects
- Estimated local share of cost is based on local share of prior 5 years of transportation expenditures
- Residential share of trips is an estimate at 70%

Formula:

1. Add Capital Improvements Plan total transportation projects cost.
2. For projects where State funding is not included in the CIP, add in State share of project cost to get Subtotal cost.
3. Multiply Subtotal by 4 (since looking forward 20 years).
4. Determine local share of transportation costs based on prior 5 year period.
5. Multiply local share by the 20 year projected investment for total estimated local cost.
6. Multiply the total estimated local cost by 70% to reflect estimated residential share.
7. Divide that figure by the current population to determine a per capita cost.
8. Multiply the per capita cost by the population generation factor for each housing type to determine the estimated per unit cost.

FY 2016 – FY 2020 Adopted CIP – Transportation	*$272,561,500
+ State share (since CIP reflects only County share):	
Harrison Widening – Old Plank to Gordon	$1,100,000
Thornton Rolling Intersection	$1,887,500
Grand Brooks Resurfacing	$1,000,000
Ely's Ford Intersection Realignment	$1,596,000
Subtotal	$278,145,000
Expand to 20 years	x 4
Total 20 year projected investment	$1,112,580,000

Total 20 year projected investment	$1,112,580,000
Estimated local share of cost	x 0.25
Estimated local cost	$277,725,157

Estimated local cost	$277,725,157
Residential share of trips	x 0.70
Residential share of cost of improvements	$194,407,610

Residential share of cost of improvements $194,407,610 = $1,505 cost per capita
Current population 129,188

*In addition to current CIP costs, includes additional costs for exit 118 and exit 126

	Single Family Detached (SFD)	Single Family Attached (SFA)	Multi Family (MF)
Population Generation	**3.04**	**2.41**	**1.49**
Estimated Impact on Transportation	**$4,575**	**$3,627**	**$2,242**

PARKS AND RECREATION

Assumptions/Sources:

- Use lesser of adopted or current Level of Service (Applied Standard)
- If County has available land, do not include and acquisition costs
- Field, playground, and Court costs based on most recent per acre facility development (Patriot Park)
- Building costs based on most recent edition of RSMeans
- Pool cost based on Spotswood Swim Club assessed value
- Trail cost based on estimate for 1 mile of Virginia Central Rail Trail (Kimley-Horn & Associates, Inc.)
- Site work cost based on 20% of building construction cost for community center and public meeting space

Formula:

1. Multiply the Size by the Cost per acre, SF or mile for each facility to determine the Total Cost.
2. Divide the Total Cost by the Applied Standard for the Cost per Capita.
3. Add all Costs per Capita to determine the Total Cost per Capita.
4. Multiply the Total Cost per Capita by the population generation factor for each housing type to determine the estimated per unit cost.

Facility	Adopted LOS	Actual LOS	Applied Standard	Size (acre or SF)	Cost per acre, SF or mile	Total Cost	Cost per Capita
Multi-Purpose Field	1 per 2000	1 per 2,088	1 per 2,088	2	$56,513	$113,026	$54.13
Tennis Court	1 per 2000	1 per 1,355	1 per 2000	0.15	$56,513	$8,477	$4.24
Baseball/Softball Diamond	1 per 3000	1 per 2,358	1 per 3000	2.5	$56,513	$141,283	$59.92
Basketball Court	1 per 5000	1 per 2,449	1 per 5000	0.1	$56,513	$5,651	$1.13
Playground	1 per 5000	> 1 per 5,000	1 per 5000	0.1	$56,513	$5,651	$1.13
Community Center	1 per 15,000	1 per 18,193	1 per 18,193	5,696	$157.16	$895,206	$49.21
Swimming Pool	1 per 20,000	1 per 4,898	1 per 20,000	0.5	n/a	$182,100	$9.11
Trails	1 mile per 1,000	1 mile per 5,585	1 mi per 5,585	n/a	$209,682	$209,682	$37.54
Meeting Space	200 sf per 1,000	200 sf per 1,023	200 sf per 1,023	n/a	$157.16	$31,433	$30.73
					Total		**$247**

	Single Family Detached (SFD)	Single Family Attached (SFA)	Multi Family (MF)
Population Generation	**3.04**	**2.41**	**1.49**
Estimated Impact on Parks & Rec	**$751**	**$596**	**$368**

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SOLID WASTE

Assumptions/Sources:

- Pounds solid waste per person – Current EPA Guidelines (excluded lbs/day recycled)
- Life expectancy - http://www.worldlifeexpectancy.com/usa/virginia-life-expectancy
- Capacity – actual tons (capacity of cells 1& 6, Phase I infill)
- Project costs – engineering and construction budget from Public Works staff

Formula:

1. Multiply the days in a year by pounds per person per day for the pounds per person per year.
2. Multiply the pounds per person per year by the Virginia life expectancy for tons per person (lifetime).
3. Divide the total project costs by capacity for the cost per ton.
4. Multiply the cost per ton by tons per person (lifetime) for the cost per person.
5. Multiply the cost per person by the population generation factor for each housing type to determine the estimated per unit cost.

Days in year	365
Pounds per person/day	x 2.87
Pounds per person/year	1047.55
Total project costs	$9,753,600= $6.41 Cost per ton
Capacity	1,520,790
Cost per ton	$6.41
Tons per person/lifetime	x 41
Cost per person	$263

Pounds per person/year	1047.55
Virginia life expectancy	x 78.53
Tons per person/lifetime	41
Projects:	
Phase I In-fill Dvt.	$ 2,595,000
Phase I Closure Cost	$ 5,147,600
Cost of Cell 6	+ $ 2,011,000
	$ 9,753,600

	Single Family Detached (SFD)	Single Family Attached (SFA)	Multi Family (MF)
Population Generation	**3.04**	**2.41**	**1.49**
Estimated Impact for Solid Waste	**$799**	**$634**	**$392**

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LIBRARIES

Assumptions/Sources:

- Size of site: Most recent library built in Spotsylvania
- Land cost per acre: $33,830
- Site work: 20% of building construction only cost
- Building SF cost: Most recent edition of RSMeans
- Building size: Most recently library built in Spotsylvania (exclude meeting space)
- Collections and Technology SF costs: Recent library construction data from Library of Virginia

Formula:

1. Multiply the Land cost per acre by the Size of site for the Land cost.
2. Multiply the Building size by the Building SF cost for the Building only cost.
3. Multiply the Building only cost by 0.20 for the Site work cost.
4. Add the Building SF cost, Collections SF cost and Technology SF cost for the Cost of Library per SF.
5. Multiply the Building size by the Cost of the Library per SF for the Total building cost.
6. Add the Land cost, Site work cost and Total building cost for the Total cost of a new library.
7. Divide the Total cost of a new library by the Building size for the Total SF cost of a new library.
8. Multiply the Total SF cost of a new library by the adopted Level of Service for the Cost per person
6. Multiply the Cost per person by the population generation factor for each housing type to determine the estimated per unit cost.

Land cost per acre	$33,830
Size of site (acres)	x 3.96
Land cost	$133,967
Building only cost	$2,939,931
20%	x 0.20
Site work cost	$587,986
Building size	22,055
Cost of Library per SF	x 187.66
Total building cost	$4,138,841
Land cost	$133,967
Site work cost	$587,986
Total building cost	+ $4,138,841
Total cost of new library	$4,860,841
Total SF cost	$220
Adopted LOS	x 0.30
Cost per person	$66

Building size (SF)	22,055
Building SF Cost	x $133.30
Building only cost	$2,939,931
Building SF cost	133.30
Collections SF cost	29.36
Technology SF cost	+25.00
Cost of Library per SF	187.66

Total cost of new library $4,860,841 = $220.39 Total SF cost
Building size 22,055

	Single Family Detached (SFD)	Single Family Attached (SFA)	Multi Family (MF)
Population Generation	**3.04**	**2.41**	**1.49**
Estimated Impact on Libraries	**$201**	**$159**	**$99**