



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

February 12, 2009

TECHNICAL MEMORANDUM

TO: Montgomery County Planning Board

CC: Piera Weiss, Master Planner (Vision Division) *PW*

VIA: Dan Hardy, Chief (Move Division), Acting Chief (Explore Division) *DKH*

FROM: Jacob Sesker, Planner Coordinator (Explore/Research) *JNS*

SUBJECT: Technical Memo-White Flint Financing

1.0 INTRODUCTION

This memorandum contains Staff's technical analysis of the financing mechanism proposed in the White Flint Sector Plan. The memorandum includes the following information:

- Section 1 includes a discussion of the background of this analysis and a summary of findings.
- Section 2 includes an explanation of the assumptions used to establish a build-out of the development program and an analysis of the various revenues generated by that build-out.
- Section 3 (and Appendix A) describes the transportation system cost estimates.
- Section 4 provides an analysis of the proposed financing mechanism, while Appendix B demonstrates the sensitivity of the proposed mechanism to some alternative assumptions.

1.1 BACKGROUND

The most recent Planning Board discussions dealing with financing and administration took place on the following dates:

- September 11, 2008
- October 30, 2008

On September 11, 2008, Staff sought guidance from the Planning Board with respect to a series of issues. In that session, the Board expressed to Staff its support for the following financing principles, taken from Staff's September 11th cover memorandum:

- “Find ways to capture as much of the impact tax and general fund tax revenue as possible for projects within the district that will resolve short-term mobility issues, including possibly creating one or more districts, expanding the Metro Station Policy Area boundary and supporting changes to the Annual Growth Policy in 2009 that would capture impact taxes paid within a metro station policy area for use only on capital projects within the Metro Station Policy Area.”
- “Find ways to leverage future private sector revenues to decrease the up-front burden of impact taxes, thereby freeing up more private capital for investment in income/revenue producing uses, including possible road club or special tax/assessments applied to all new and existing commercial uses in lieu of impact taxes on commercial development.”
- “Find ways to leverage future general fund tax revenues to pay for reconstructing Rockville Pike and undergrounding utilities along the Pike to create a better street-level environment and improved pedestrian and bicycle mobility that benefit all property owners within the district, including using Tax Increment Financing (TIF) or TIF-like mechanisms.”

On October 30th, Staff came back to the Planning Board with a more detailed discussion of the issues associated with the implementation of the Sector Plan and a description of proposed financing and administration mechanisms. At that time, the Planning Board directed Staff to return with a quantitative analysis of the financing mechanism following the public hearing.

The financing mechanism would pay for a subset of all master planned transportation facilities. The financing mechanism proposed, often referred to as a “District” financing mechanism would receive funds from multiple sources. Those sources would include:

- 1) Transportation impact taxes (or equivalents) charged to new residential development¹
- 2) Transportation impact taxes charged to new commercial development, if necessary²
- 3) A special tax/assessment of up to 10% on the value of all new and existing commercial uses/development³
- 4) Public financing (through TIF financing or GO bonds) to cover financing gaps⁴

¹ Impact fees or taxes are not ad valorem, and thus have the advantage of not being subject to limitations on increasing property taxes.

² It is envisioned that the commercial impact taxes would be eliminated.

³ In some other jurisdictions, “Transportation Improvement Districts” (TIDs) have been used to finance major roadway improvements. Generally, TIDs are funded through a special assessment on affected properties. TIDs were profiled as a “best practice” in a recent report by the Office of Legislative Oversight (Report Number 2009-6, Transportation Demand Management Implementation, Funding, and Governance, pp. 48-49).

⁴ The idea of capturing and reinvesting a portion of the incremental taxes generated by new, transit-oriented development, is becoming increasingly popular. For example, a continuing education training session offered by the American Institute of Certified Planners (“Transit District Investment”) discusses Pennsylvania’s approach to capturing and reinvesting incremental revenues.

The proposed financing mechanism does not contemplate any increased tax burden on residential development. Rather, the increased burden would fall entirely on commercial development. This concession is consistent with the County's housing affordability goals, especially in transit-served locations, and is consistent with the Sector Plan objective to add residential density.

1.2 CAVEATS

- This analysis assumes an even pace of development until build-out. The nation's economy is in an economic downturn that will likely be both long and severe. It is difficult at this stage to speculate on the extent to which this economic downturn will affect future development activity in Montgomery County.
- This analysis does not include the cost of acquiring rights-of-way for District infrastructure projects. It is assumed that all ROW is dedicated or acquired using other sources of funds. While the Sector Plan recommends that the Authority have power of eminent domain, the cost of wielding that power (by the Authority or by the public sector) is not a part of this analysis.
- This report does not include an analysis of the ongoing (operation and maintenance) costs of any Sector Plan facilities, nor does it address the capital costs of non-transportation facilities (e.g. urban library, fire substation, etc.).
- This is not an omnibus "economic issues" report, but is instead an analysis of the performance of the proposed financing mechanism under specified assumptions. This report does not include analysis of development feasibility, or analysis of realistic short-term or mid-term absorption rates. Similarly, this report does not contain economic analysis of the impact of the Sector Plan recommendations on certain geographic or interest-based communities. Additionally, this analysis does not contain an analysis of the costs of the County's exactions, or the extent to which existing exactions have been internalized in land values.

1.3 SUMMARY OF FINDINGS

Residential impact tax equivalent payments

Capturing residential impact taxes for capital projects within the District is a current best practice in transit area redevelopment and reinvestment. In the White Flint Sector Plan, those captured impact taxes (or equivalents) would be directed to pay for District projects rather than public sector projects. Overall, the impact taxes pay for roughly 7% of the total cost of District infrastructure.

Elimination of commercial impact taxes

The premise for eliminating or reducing the commercial impact taxes is that a special tax/assessment of 10% would generate more revenue than the transportation impact taxes charged at current rates. It is assumed that it would be difficult to impose an increase in taxes, or expect a voluntary increase, without offering a reduction or elimination of the impact taxes. The analysis shows the special tax/assessment will generate many times more revenue than would be generated by the impact tax.

Special tax/assessment

Charging a special tax/assessment on all new and existing commercial uses in White Flint equal to 10% (ad valorem) above current property tax rates could pay for roughly 63% of the District transportation infrastructure. Those revenues would represent a dedicated source of revenues against which the District could borrow. Though ad valorem is an equitable manner to distribute the tax incidence, other methods capable of generating comparable revenues would be acceptable.

Public sector gap financing

To finance the “District” infrastructure entirely with private money would result in a substantial increase in taxes/assessments or impact taxes. Assuming that those alternatives are too onerous, gap financing will be necessary to advance the staging plan. Given the current list of District projects, the public sector would need to provide gap financing to cover 30% of the cost of District infrastructure.

2.0 BUILD-OUT, ASSESSMENTS, AND REVENUES

Staff has presented to the Planning Board a staging capacity build-out density of nearly 30 million square feet. That total includes residential and non-residential uses. The build-out density is not equal to the total zoning capacity of the Sector Plan, but rather the total staging capacity of the Sector Plan. The splits between uses were determined in part by a desire to achieve greater potential density.

Residential

- Existing: 2,259 dwelling units
- Pipeline: 2,220 dwelling units
- Net New: 9,800 dwelling units

Non-residential

- Existing: 5.5 million square feet
- Pipeline: 1.79 million square feet
- Net New: 5.69 million square feet

The density numbers above (dwelling units and commercial square feet) ultimately drive the revenue assumptions and the subsequent analysis of the proposed financing mechanism.

2.1 BUILD-OUT

As presented, the Sector Plan will be “built out” when the net new development reaches the plan’s transportation capacity.

The following table represents the net new development by use under the transportation capacity of the Sector Plan as currently proposed.

Table 1: New development, net of existing and pipeline (by use)

TOTAL NET NEW DEVELOPMENT	
Dwelling Units	9,800
Office	2,831,746
Retail	1,887,830
Industrial	317,058
Other	0
Hotel	653,366

For purposes of this analysis, it is assumed that build-out of net new development occurs over a 30-year development timeline. The following additional assumptions were made in creating the build-out scenario:

- Pipeline development (residential and non-residential) is spread evenly over years 1 through 5.
- No pipeline development (residential and non-residential) is redeveloped during the 30 year build-out horizon.
- Net new development is spread evenly across years 6 through 30 for all uses. Put differently, $1/25^{\text{th}}$ of all net new development for each use comes on line in each of those years.
- No existing residential development is redeveloped.
- All existing non-residential is redeveloped, with that redevelopment spread evenly over the 30-year build-out horizon. Put differently, $1/30^{\text{th}}$ of all existing non-residential development is replaced every year (one square foot for one square foot) with new, higher value development.

Table 2: Cumulative residential units, by year

TOTAL RESIDENTIAL DEVELOPMENT ON THE GROUND (UNITS)				
Year	Existing	Pipeline	New	Total
0	2,259	-	-	2,259
1	2,259	444	-	2,703
2	2,259	888	-	3,147
3	2,259	1,332	-	3,591
4	2,259	1,776	-	4,035
5	2,259	2,220	-	4,479
6	2,259	2,220	392	4,871
7	2,259	2,220	784	5,263
8	2,259	2,220	1,176	5,655
9	2,259	2,220	1,568	6,047
10	2,259	2,220	1,960	6,439
11	2,259	2,220	2,352	6,831
12	2,259	2,220	2,744	7,223
13	2,259	2,220	3,136	7,615
14	2,259	2,220	3,528	8,007
15	2,259	2,220	3,920	8,399
16	2,259	2,220	4,312	8,791
17	2,259	2,220	4,704	9,183
18	2,259	2,220	5,096	9,575
19	2,259	2,220	5,488	9,967
20	2,259	2,220	5,880	10,359
21	2,259	2,220	6,272	10,751
22	2,259	2,220	6,664	11,143
23	2,259	2,220	7,056	11,535
24	2,259	2,220	7,448	11,927
25	2,259	2,220	7,840	12,319
26	2,259	2,220	8,232	12,711
27	2,259	2,220	8,624	13,103
28	2,259	2,220	9,016	13,495
29	2,259	2,220	9,408	13,887
30	2,259	2,220	9,800	14,279

For purposes of this analysis it is assumed that in thirty years there will be 14,279 residential units within the boundaries of the White Flint Sector Plan. All pipeline development is spread evenly over the first five years, with all net new development spread evenly over the remaining twenty-five years.

Table 3: Cumulative non-residential square feet, by year

TOTAL NON-RESIDENTIAL DEVELOPMENT ON THE GROUND (SQUARE FEET)					
Year	Existing	Pipeline	Net New	Replacement New	Total
0	5,500,000	-	-	-	5,500,000
1	5,316,667	358,000	-	183,333	5,858,000
2	5,133,333	716,000	-	366,667	6,216,000
3	4,950,000	1,074,000	-	550,000	6,574,000
4	4,766,667	1,432,000	-	733,333	6,932,000
5	4,583,333	1,790,000	-	916,667	7,290,000
6	4,400,000	1,790,000	227,600	1,100,000	7,517,600
7	4,216,667	1,790,000	455,200	1,283,333	7,745,200
8	4,033,333	1,790,000	682,800	1,466,667	7,972,800
9	3,850,000	1,790,000	910,400	1,650,000	8,200,400
10	3,666,667	1,790,000	1,138,000	1,833,333	8,428,000
11	3,483,333	1,790,000	1,365,600	2,016,667	8,655,600
12	3,300,000	1,790,000	1,593,200	2,200,000	8,883,200
13	3,116,667	1,790,000	1,820,800	2,383,333	9,110,800
14	2,933,333	1,790,000	2,048,400	2,566,667	9,338,400
15	2,750,000	1,790,000	2,276,000	2,750,000	9,566,000
16	2,566,667	1,790,000	2,503,600	2,933,333	9,793,600
17	2,383,333	1,790,000	2,731,200	3,116,667	10,021,200
18	2,200,000	1,790,000	2,958,800	3,300,000	10,248,800
19	2,016,667	1,790,000	3,186,400	3,483,333	10,476,400
20	1,833,333	1,790,000	3,414,000	3,666,667	10,704,000
21	1,650,000	1,790,000	3,641,600	3,850,000	10,931,600
22	1,466,667	1,790,000	3,869,200	4,033,333	11,159,200
23	1,283,333	1,790,000	4,096,800	4,216,667	11,386,800
24	1,100,000	1,790,000	4,324,400	4,400,000	11,614,400
25	916,667	1,790,000	4,552,000	4,583,333	11,842,000
26	733,333	1,790,000	4,779,600	4,766,667	12,069,600
27	550,000	1,790,000	5,007,200	4,950,000	12,297,200
28	366,667	1,790,000	5,234,800	5,133,333	12,524,800
29	183,333	1,790,000	5,462,400	5,316,667	12,752,400
30	-	1,790,000	5,690,000	5,500,000	12,980,000

With non-residential development, all existing space is redeveloped over the course of the 30-year development timeline, with that redevelopment occurring at an even pace. As with net new residential, net new non-residential begins to come on line in the sixth year, with 1/25th of all net new development coming on-line in each year thereafter. It is assumed that in thirty years there will be a total of 12,980,000 total square feet of non-residential (i.e. commercial) use.

2.2 ASSESSMENT VALUE OF BUILD-OUT

The next step in Staff's analysis was to translate build-out into assessment values over time. Assessments occur every three years. During the first three year cycle after construction, assessments are based on development costs of the improvements. When the next cycle begins, the improvements are assessed based on market value.

Table 4: Development cost and market value assumptions⁵

Development Cost and Market Value (Per Square Foot), by Use		
	Development Cost	Market Value
Residential	\$300.00	\$500.00
Office	\$300.00	\$425.00
Retail	\$275.00	\$400.00
Industrial	\$100.00	\$150.00
Hotel	\$300.00	\$425.00

Table 4 shows assessed values are shown at two levels—development cost and market value. Assessment of real property is based on development cost during the first 3-year tax assessment cycle and at market value thereafter. For this reason, over time the assessments (on a per square foot basis) are likely to be much closer to the market value assessments. In the remainder of this analysis, it is assumed that all development is assessed at market value.

The following assumptions were used in calculating the assessment and revenue implications of build out:

- All assessments in this analysis are assumed to be at market value.
- All non-residential uses develop evenly (i.e. 1/25th of each use develops in Years 6 through 30).
- The weighted average market value of all non-residential uses is \$401.38.
- All numbers hereafter are expressed in 2008\$, and there is no inflation of costs or values assumed.

⁵ The development cost and market value assumptions are based upon reasonable expectations of the market for new development under the White Flint plan. In general these figures are above the values of existing space within the metro area. New development will be of a high quality, will support an ample public benefits package, and will place White Flint among the premier locations in the region. Even still, some of these assumptions are well below the assumptions put forth by the Developer's Collaborative; for example, the Developer's Collaborative assumes retail market values of \$600 per square foot, which is 50% above Staff's assumed market value.

Table 5: New residential assessments

Assessed Value of New Residential Development			
Year	Pipeline	Net New	Total
0	\$0	\$0	\$0
1	\$266,400,000	\$0	\$266,400,000
2	\$532,800,000	\$0	\$532,800,000
3	\$799,200,000	\$0	\$799,200,000
4	\$1,065,600,000	\$0	\$1,065,600,000
5	\$1,332,000,000	\$0	\$1,332,000,000
6	\$1,332,000,000	\$235,200,000	\$1,567,200,000
7	\$1,332,000,000	\$470,400,000	\$1,802,400,000
8	\$1,332,000,000	\$705,600,000	\$2,037,600,000
9	\$1,332,000,000	\$940,800,000	\$2,272,800,000
10	\$1,332,000,000	\$1,176,000,000	\$2,508,000,000
11	\$1,332,000,000	\$1,411,200,000	\$2,743,200,000
12	\$1,332,000,000	\$1,646,400,000	\$2,978,400,000
13	\$1,332,000,000	\$1,881,600,000	\$3,213,600,000
14	\$1,332,000,000	\$2,116,800,000	\$3,448,800,000
15	\$1,332,000,000	\$2,352,000,000	\$3,684,000,000
16	\$1,332,000,000	\$2,587,200,000	\$3,919,200,000
17	\$1,332,000,000	\$2,822,400,000	\$4,154,400,000
18	\$1,332,000,000	\$3,057,600,000	\$4,389,600,000
19	\$1,332,000,000	\$3,292,800,000	\$4,624,800,000
20	\$1,332,000,000	\$3,528,000,000	\$4,860,000,000
21	\$1,332,000,000	\$3,763,200,000	\$5,095,200,000
22	\$1,332,000,000	\$3,998,400,000	\$5,330,400,000
23	\$1,332,000,000	\$4,233,600,000	\$5,565,600,000
24	\$1,332,000,000	\$4,468,800,000	\$5,800,800,000
25	\$1,332,000,000	\$4,704,000,000	\$6,036,000,000
26	\$1,332,000,000	\$4,939,200,000	\$6,271,200,000
27	\$1,332,000,000	\$5,174,400,000	\$6,506,400,000
28	\$1,332,000,000	\$5,409,600,000	\$6,741,600,000
29	\$1,332,000,000	\$5,644,800,000	\$6,976,800,000
30	\$1,332,000,000	\$5,880,000,000	\$7,212,000,000

At build-out, assessments of new residential development will be roughly \$7.2 billion (in 2008\$). This figure represents only assessments of new residential improvements, and does not include any increase in the assessed value of residential land or of existing residential improvements.⁶

⁶ While the value of residential land and existing residential units may both increase over the build-out horizon, that increase is not a part of this analysis.

Table 6: New non-residential assessments

Assessed Value of Non-Residential Space				
Year	Pipeline	Net New	Replacement New	Total
0	\$0	\$0	\$0	\$0
1	\$143,694,739	\$0	\$23,170,024	\$166,864,763
2	\$287,389,477	\$0	\$46,340,049	\$333,729,526
3	\$431,084,216	\$0	\$69,510,073	\$500,594,289
4	\$574,778,955	\$0	\$92,680,098	\$667,459,053
5	\$718,473,693	\$0	\$115,850,122	\$834,323,816
6	\$662,366,979	\$91,354,532	\$139,020,147	\$892,741,658
7	\$662,366,979	\$182,709,064	\$162,190,171	\$1,007,266,215
8	\$662,366,979	\$274,063,597	\$185,360,196	\$1,121,790,771
9	\$662,366,979	\$365,418,129	\$208,530,220	\$1,236,315,328
10	\$662,366,979	\$456,772,661	\$231,700,245	\$1,350,839,885
11	\$662,366,979	\$548,127,193	\$254,870,269	\$1,465,364,441
12	\$662,366,979	\$639,481,725	\$278,040,294	\$1,579,888,998
13	\$662,366,979	\$730,836,257	\$301,210,318	\$1,694,413,555
14	\$662,366,979	\$822,190,790	\$324,380,342	\$1,808,938,111
15	\$662,366,979	\$913,545,322	\$347,550,367	\$1,923,462,668
16	\$662,366,979	\$1,004,899,854	\$370,720,391	\$2,037,987,225
17	\$662,366,979	\$1,096,254,386	\$393,890,416	\$2,152,511,781
18	\$662,366,979	\$1,187,608,918	\$417,060,440	\$2,267,036,338
19	\$662,366,979	\$1,278,963,451	\$440,230,465	\$2,381,560,895
20	\$662,366,979	\$1,370,317,983	\$463,400,489	\$2,496,085,451
21	\$662,366,979	\$1,461,672,515	\$486,570,514	\$2,610,610,008
22	\$662,366,979	\$1,553,027,047	\$509,740,538	\$2,725,134,565
23	\$662,366,979	\$1,644,381,579	\$532,910,563	\$2,839,659,121
24	\$662,366,979	\$1,735,736,112	\$556,080,587	\$2,954,183,678
25	\$662,366,979	\$1,827,090,644	\$579,250,612	\$3,068,708,234
26	\$662,366,979	\$1,918,445,176	\$602,420,636	\$3,183,232,791
27	\$662,366,979	\$2,009,799,708	\$625,590,660	\$3,297,757,348
28	\$662,366,979	\$2,101,154,240	\$648,760,685	\$3,412,281,904
29	\$662,366,979	\$2,192,508,772	\$671,930,709	\$3,526,806,461
30	\$662,366,979	\$2,283,863,305	\$695,100,734	\$3,641,331,018

Table 6 shows values of non-residential development. The table includes pipeline development, net new development, and increases in value based on redevelopment of existing space into higher value new space. Together these tables indicate that there will be additional residential value of \$7.2 billion at build-out, and total new commercial value is of \$3.6 billion. At build-out, the plan will generate roughly \$10.8 billion (2008\$) in new assessed improvement value.

2.3 REVENUE IMPLICATIONS OF BUILD-OUT

Staff applied the FY09 overall countywide property tax rate of \$0.978 per \$100 of assessed value, and the FY09 General Fund tax rate of \$0.74 per \$100 of assessed value.

Table 7: Overall property tax revenue from new residential

Net New Overall Property Tax Revenue From Residential			
Year	Pipeline	Net New	Total
0	\$0	\$0	\$0
1	\$2,605,392	\$0	\$2,605,392
2	\$5,210,784	\$0	\$5,210,784
3	\$7,816,176	\$0	\$7,816,176
4	\$10,421,568	\$0	\$10,421,568
5	\$13,026,960	\$0	\$13,026,960
6	\$13,026,960	\$2,300,256	\$15,327,216
7	\$13,026,960	\$4,600,512	\$17,627,472
8	\$13,026,960	\$6,900,768	\$19,927,728
9	\$13,026,960	\$9,201,024	\$22,227,984
10	\$13,026,960	\$11,501,280	\$24,528,240
11	\$13,026,960	\$13,801,536	\$26,828,496
12	\$13,026,960	\$16,101,792	\$29,128,752
13	\$13,026,960	\$18,402,048	\$31,429,008
14	\$13,026,960	\$20,702,304	\$33,729,264
15	\$13,026,960	\$23,002,560	\$36,029,520
16	\$13,026,960	\$25,302,816	\$38,329,776
17	\$13,026,960	\$27,603,072	\$40,630,032
18	\$13,026,960	\$29,903,328	\$42,930,288
19	\$13,026,960	\$32,203,584	\$45,230,544
20	\$13,026,960	\$34,503,840	\$47,530,800
21	\$13,026,960	\$36,804,096	\$49,831,056
22	\$13,026,960	\$39,104,352	\$52,131,312
23	\$13,026,960	\$41,404,608	\$54,431,568
24	\$13,026,960	\$43,704,864	\$56,731,824
25	\$13,026,960	\$46,005,120	\$59,032,080
26	\$13,026,960	\$48,305,376	\$61,332,336
27	\$13,026,960	\$50,605,632	\$63,632,592
28	\$13,026,960	\$52,905,888	\$65,932,848
29	\$13,026,960	\$55,206,144	\$68,233,104
30	\$13,026,960	\$57,506,400	\$70,533,360
Total			\$1,112,338,080

Table 8: Overall property tax revenues from new commercial development

Net New Overall Property Tax Revenue From Non-Residential					
Year	Existing	Pipeline	Net New	Replacement New	Total
0	\$14,792,250 ⁷	\$0	\$0	\$0	\$0
1	\$14,299,175	\$1,405,335	\$0	\$226,603	\$1,631,937
2	\$13,806,100	\$2,810,669	\$0	\$453,206	\$3,263,875
3	\$13,313,025	\$4,216,004	\$0	\$679,809	\$4,895,812
4	\$12,819,950	\$5,621,338	\$0	\$906,411	\$6,527,750
5	\$12,326,875	\$7,026,673	\$0	\$1,133,014	\$8,159,687
6	\$11,833,800	\$6,477,949	\$893,447	\$1,359,617	\$8,731,013
7	\$11,340,725	\$6,477,949	\$1,786,895	\$1,586,220	\$9,851,064
8	\$10,847,650	\$6,477,949	\$2,680,342	\$1,812,823	\$10,971,114
9	\$10,354,575	\$6,477,949	\$3,573,789	\$2,039,426	\$12,091,164
10	\$9,861,500	\$6,477,949	\$4,467,237	\$2,266,028	\$13,211,214
11	\$9,368,425	\$6,477,949	\$5,360,684	\$2,492,631	\$14,331,264
12	\$8,875,350	\$6,477,949	\$6,254,131	\$2,719,234	\$15,451,314
13	\$8,382,275	\$6,477,949	\$7,147,579	\$2,945,837	\$16,571,365
14	\$7,889,200	\$6,477,949	\$8,041,026	\$3,172,440	\$17,691,415
15	\$7,396,125	\$6,477,949	\$8,934,473	\$3,399,043	\$18,811,465
16	\$6,903,050	\$6,477,949	\$9,827,921	\$3,625,645	\$19,931,515
17	\$6,409,975	\$6,477,949	\$10,721,368	\$3,852,248	\$21,051,565
18	\$5,916,900	\$6,477,949	\$11,614,815	\$4,078,851	\$22,171,615
19	\$5,423,825	\$6,477,949	\$12,508,263	\$4,305,454	\$23,291,666
20	\$4,930,750	\$6,477,949	\$13,401,710	\$4,532,057	\$24,411,716
21	\$4,437,675	\$6,477,949	\$14,295,157	\$4,758,660	\$25,531,766
22	\$3,944,600	\$6,477,949	\$15,188,605	\$4,985,262	\$26,651,816
23	\$3,451,525	\$6,477,949	\$16,082,052	\$5,211,865	\$27,771,866
24	\$2,958,450	\$6,477,949	\$16,975,499	\$5,438,468	\$28,891,916
25	\$2,465,375	\$6,477,949	\$17,868,946	\$5,665,071	\$30,011,967
26	\$1,972,300	\$6,477,949	\$18,762,394	\$5,891,674	\$31,132,017
27	\$1,479,225	\$6,477,949	\$19,655,841	\$6,118,277	\$32,252,067
28	\$986,150	\$6,477,949	\$20,549,288	\$6,344,879	\$33,372,117
29	\$493,075	\$6,477,949	\$21,442,736	\$6,571,482	\$34,492,167
30	\$0	\$6,477,949	\$22,336,183	\$6,798,085	\$35,612,217
Total					\$578,769,445

⁷ Existing assessed value in this case is derived by multiplying the estimated total square feet of non-residential in the Sector Plan (5,500,000) by \$275 per square foot. The \$275 figure is based on a review of the assessment value of improvements for most non-residential parcel file data for the Sector Plan area. This method was used in order to smooth out data discrepancies pertaining to both the total number of commercial square feet and the total value of commercial improvements.

Taken together, these numbers indicate roughly \$1.7 billion (2008\$) over 30 years in overall property taxes from the assessment of new improvements.⁸

Of course, overall property tax revenue includes funds designated for specific purposes. Only a portion of overall revenues are available to pay for infrastructure. The portion that is available is the portion of overall revenues that go to the General Fund. The revenues to the General Fund represent roughly $\frac{3}{4}$ of the overall property tax revenues.

⁸ This is not the same as incremental revenues, which will be addressed later. These figures are improvements only and do not include land assessments, which are assumed to remain constant.

Table 9: General Fund property tax revenues, residential development

Net New General Fund Property Tax Revenue From Residential			
Year	Pipeline	Net New	Total
0	\$0	\$0	\$0
1	\$1,971,360	\$0	\$1,971,360
2	\$3,942,720	\$0	\$3,942,720
3	\$5,914,080	\$0	\$5,914,080
4	\$7,885,440	\$0	\$7,885,440
5	\$9,856,800	\$0	\$9,856,800
6	\$9,856,800	\$1,740,480	\$11,597,280
7	\$9,856,800	\$3,480,960	\$13,337,760
8	\$9,856,800	\$5,221,440	\$15,078,240
9	\$9,856,800	\$6,961,920	\$16,818,720
10	\$9,856,800	\$8,702,400	\$18,559,200
11	\$9,856,800	\$10,442,880	\$20,299,680
12	\$9,856,800	\$12,183,360	\$22,040,160
13	\$9,856,800	\$13,923,840	\$23,780,640
14	\$9,856,800	\$15,664,320	\$25,521,120
15	\$9,856,800	\$17,404,800	\$27,261,600
16	\$9,856,800	\$19,145,280	\$29,002,080
17	\$9,856,800	\$20,885,760	\$30,742,560
18	\$9,856,800	\$22,626,240	\$32,483,040
19	\$9,856,800	\$24,366,720	\$34,223,520
20	\$9,856,800	\$26,107,200	\$35,964,000
21	\$9,856,800	\$27,847,680	\$37,704,480
22	\$9,856,800	\$29,588,160	\$39,444,960
23	\$9,856,800	\$31,328,640	\$41,185,440
24	\$9,856,800	\$33,069,120	\$42,925,920
25	\$9,856,800	\$34,809,600	\$44,666,400
26	\$9,856,800	\$36,550,080	\$46,406,880
27	\$9,856,800	\$38,290,560	\$48,147,360
28	\$9,856,800	\$40,031,040	\$49,887,840
29	\$9,856,800	\$41,771,520	\$51,628,320
30	\$9,856,800	\$43,512,000	\$53,368,800
Total			\$841,646,400

New residential development will generate roughly \$840 million (2008\$) in General Fund revenues over the 30 year build-out horizon.

Table 10: General Fund property tax revenues, non-residential development

Net New General Fund Property Tax Revenue From Non-Residential					
Year	Existing	Pipeline	Net New	Replacement New	Total
0	\$ 11,192,500	\$ -	\$ -	\$ -	\$ -
1	\$ 10,819,417	\$ 1,063,341	\$ -	\$ 171,458	\$ 1,234,799
2	\$ 10,446,333	\$ 2,126,682	\$ -	\$ 342,916	\$ 2,469,598
3	\$ 10,073,250	\$ 3,190,023	\$ -	\$ 514,375	\$ 3,704,398
4	\$ 9,700,167	\$ 4,253,364	\$ -	\$ 685,833	\$ 4,939,197
5	\$ 9,327,083	\$ 5,316,705	\$ -	\$ 857,291	\$ 6,173,996
6	\$ 8,954,000	\$ 4,901,516	\$ 676,024	\$ 1,028,749	\$ 6,606,288
7	\$ 8,580,917	\$ 4,901,516	\$ 1,352,047	\$ 1,200,207	\$ 7,453,770
8	\$ 8,207,833	\$ 4,901,516	\$ 2,028,071	\$ 1,371,665	\$ 8,301,252
9	\$ 7,834,750	\$ 4,901,516	\$ 2,704,094	\$ 1,543,124	\$ 9,148,733
10	\$ 7,461,667	\$ 4,901,516	\$ 3,380,118	\$ 1,714,582	\$ 9,996,215
11	\$ 7,088,583	\$ 4,901,516	\$ 4,056,141	\$ 1,886,040	\$ 10,843,697
12	\$ 6,715,500	\$ 4,901,516	\$ 4,732,165	\$ 2,057,498	\$ 11,691,179
13	\$ 6,342,417	\$ 4,901,516	\$ 5,408,188	\$ 2,228,956	\$ 12,538,660
14	\$ 5,969,333	\$ 4,901,516	\$ 6,084,212	\$ 2,400,415	\$ 13,386,142
15	\$ 5,596,250	\$ 4,901,516	\$ 6,760,235	\$ 2,571,873	\$ 14,233,624
16	\$ 5,223,167	\$ 4,901,516	\$ 7,436,259	\$ 2,743,331	\$ 15,081,105
17	\$ 4,850,083	\$ 4,901,516	\$ 8,112,282	\$ 2,914,789	\$ 15,928,587
18	\$ 4,477,000	\$ 4,901,516	\$ 8,788,306	\$ 3,086,247	\$ 16,776,069
19	\$ 4,103,917	\$ 4,901,516	\$ 9,464,330	\$ 3,257,705	\$ 17,623,551
20	\$ 3,730,833	\$ 4,901,516	\$ 10,140,353	\$ 3,429,164	\$ 18,471,032
21	\$ 3,357,750	\$ 4,901,516	\$ 10,816,377	\$ 3,600,622	\$ 19,318,514
22	\$ 2,984,667	\$ 4,901,516	\$ 11,492,400	\$ 3,772,080	\$ 20,165,996
23	\$ 2,611,583	\$ 4,901,516	\$ 12,168,424	\$ 3,943,538	\$ 21,013,477
24	\$ 2,238,500	\$ 4,901,516	\$ 12,844,447	\$ 4,114,996	\$ 21,860,959
25	\$ 1,865,417	\$ 4,901,516	\$ 13,520,471	\$ 4,286,455	\$ 22,708,441
26	\$ 1,492,333	\$ 4,901,516	\$ 14,196,494	\$ 4,457,913	\$ 23,555,923
27	\$ 1,119,250	\$ 4,901,516	\$ 14,872,518	\$ 4,629,371	\$ 24,403,404
28	\$ 746,167	\$ 4,901,516	\$ 15,548,541	\$ 4,800,829	\$ 25,250,886
29	\$ 373,083	\$ 4,901,516	\$ 16,224,565	\$ 4,972,287	\$ 26,098,368
30	\$ -	\$ 4,901,516	\$ 16,900,588	\$ 5,143,745	\$ 26,945,850
Total					\$437,923,711

Non-residential development could generate roughly \$440 million (2008\$) in General Fund revenue. Total General Fund revenues from all residential and non-residential improvements would be roughly \$1.3 billion over the 30-year build-out horizon.

2.4 ANALYSIS OF INCREMENTAL REVENUES

In determining the incremental revenues generated by the new development, a critical step is making a determination of baseline property tax revenues. Staff calculated the tax increment on assessed improvements only, and assumed that land values will remain at current levels.⁹

In estimating total current revenues, Staff made the following assumptions in an effort to in order to address inconsistencies in the parcel file data:

- Based on a review of parcel file data of existing commercial properties within the Sector Plan, an average assessed value of \$275 per improved square foot was assumed for all existing commercial development
- Based on a review of existing parcel (condo) file data, an average assessed value of \$235 per improved square foot was applied to existing residential development
- It was assumed that there are 5,500,000 square feet of existing non-residential uses
- It was assumed that there are 2,259 residential units at an average of 1,200 square feet per unit
- It was assumed that all square feet of residential and non-residential uses are taxable

Table 11: Estimated existing property tax revenues, improvements, by use

	Improvements-Overall Prop Tax Revenue	Improvements-General Fund Prop Tax Revenues
Commercial Existing Assessment	\$ 14,792,250	\$ 11,192,500
Residential Existing Assessment	\$ 6,230,232	\$ 4,714,081
<i>Total Existing Assessment</i>	<i>\$ 21,022,482</i>	<i>\$ 15,906,581</i>

The total General Fund revenue from existing improvements (“baseline”) is approximately \$16 million per annum. The current assessments are predominantly commercial, reflecting the existing land use patterns within the Sector Plan boundary.

The tables that follow illustrate the General Fund portion of the incremental ad valorem property taxes. In each year, the incremental property taxes are the taxes above the baseline property taxes. Looking at incremental revenues is different than looking at the revenues generated by new development because incremental revenues include the difference between the revenue generated by each square foot of existing commercial at its current assessed value and its assessed value after redevelopment.

⁹ For purposes of this analysis, Staff is not addressing the question of whether the assessed value of land will increase following the adoption of the Sector Plan.

Table 12: Baseline and incremental revenues

Incremental General Fund Revenues					
Yr	GF Revenue All Existing Assessments	GF Revenue-All New Assessments	GF Revenue-All New & Existing	Annual Incremental GF Revenues	Cumulative Incremental GF Revenues
0	\$15,906,581				
1	\$15,533,498	\$3,206,159	\$18,739,657	\$2,833,076	\$2,833,076
2	\$15,160,415	\$6,412,318	\$21,572,733	\$5,666,152	\$8,499,228
3	\$14,787,331	\$9,618,478	\$24,405,809	\$8,499,228	\$16,998,455
4	\$14,414,248	\$12,824,637	\$27,238,885	\$11,332,304	\$28,330,759
5	\$14,041,165	\$16,030,796	\$30,071,961	\$14,165,380	\$42,496,139
6	\$13,668,081	\$18,203,568	\$31,871,649	\$15,965,068	\$58,461,207
7	\$13,294,998	\$20,791,530	\$34,086,528	\$18,179,947	\$76,641,154
8	\$12,921,915	\$23,379,492	\$36,301,406	\$20,394,825	\$97,035,979
9	\$12,548,831	\$25,967,453	\$38,516,285	\$22,609,703	\$119,645,682
10	\$12,175,748	\$28,555,415	\$40,731,163	\$24,824,582	\$144,470,264
11	\$11,802,665	\$31,143,377	\$42,946,041	\$27,039,460	\$171,509,724
12	\$11,429,581	\$33,731,339	\$45,160,920	\$29,254,339	\$200,764,063
13	\$11,056,498	\$36,319,300	\$47,375,798	\$31,469,217	\$232,233,280
14	\$10,683,415	\$38,907,262	\$49,590,677	\$33,684,095	\$265,917,375
15	\$10,310,331	\$41,495,224	\$51,805,555	\$35,898,974	\$301,816,349
16	\$9,937,248	\$44,083,185	\$54,020,433	\$38,113,852	\$339,930,201
17	\$9,564,165	\$46,671,147	\$56,235,312	\$40,328,731	\$380,258,931
18	\$9,191,081	\$49,259,109	\$58,450,190	\$42,543,609	\$422,802,540
19	\$8,817,998	\$51,847,071	\$60,665,068	\$44,758,487	\$467,561,028
20	\$8,444,915	\$54,435,032	\$62,879,947	\$46,973,366	\$514,534,393
21	\$8,071,831	\$57,022,994	\$65,094,825	\$49,188,244	\$563,722,637
22	\$7,698,748	\$59,610,956	\$67,309,704	\$51,403,122	\$615,125,760
23	\$7,325,665	\$62,198,917	\$69,524,582	\$53,618,001	\$668,743,761
24	\$6,952,581	\$64,786,879	\$71,739,460	\$55,832,879	\$724,576,640
25	\$6,579,498	\$67,374,841	\$73,954,339	\$58,047,758	\$782,624,397
26	\$6,206,415	\$69,962,803	\$76,169,217	\$60,262,636	\$842,887,033
27	\$5,833,331	\$72,550,764	\$78,384,096	\$62,477,514	\$905,364,548
28	\$5,460,248	\$75,138,726	\$80,598,974	\$64,692,393	\$970,056,941
29	\$5,087,165	\$77,726,688	\$82,813,852	\$66,907,271	\$1,036,964,212
30	\$4,714,081	\$80,314,650	\$85,028,731	\$69,122,150	\$1,106,086,361

The annual increment above baseline revenues would rise to \$69 million. Over the thirty year build-out horizon, the cumulative incremental revenues could rise to \$1.1 billion, i.e. the total General Fund revenues over thirty years could be up to \$1.1 billion above the cumulative General Fund revenues over that same time period if current revenues remained unchanged.

3.0 MASTER PLAN TRANSPORTATION INFRASTRUCTURE COSTS

Staff currently estimates total master planned transportation capital costs of \$319,050,000. Some of that money is associated with projects for which funds are already committed or proposed (e.g. State costs associated with the Montrose Parkway interchange, and local funds associated with Chapman and Citadel Avenues).

For purposes of this analysis, it was assumed that the financing mechanism would finance all of the costs categorized as “district” costs (see Table 1, below, and Appendix A). The \$171,250,000 in “district” infrastructure projects would be financed by a combination of public and private revenues.

Table 13: Summary of transportation infrastructure costs (2008\$)

Transportation Infrastructure Costs, by stage					
	State	Local	Private	District	TOTAL
Total Transportation Network Elements					
Stage One	\$47,200,000	\$20,100,000	\$7,500,000	\$54,000,000	\$128,800,000
Stage Two	\$20,000,000	\$0	\$43,750,000	\$35,750,000	\$99,500,000
Stage Three	\$0	\$0	\$9,250,000	\$81,500,000	\$90,750,000
TOTAL	\$67,200,000	\$20,100,000	\$60,500,000	\$171,250,000	\$319,050,000

In later discussions of the financing mechanism, costs will come to include the cost of borrowing. It is assumed for purposes of this analysis that borrowing will occur only as necessary, and that the infrastructure bonds will be issued at 5% over 20 years.

4.0 “DISTRICT” FINANCING MECHANISM

The “District” financing mechanism receives funding from multiple sources. Together these sources would cover the cost of all master-planned infrastructure identified in the Sector Plan which is not assumed to be a pure “state” or “local” cost. Those sources are:

- 1) Residential transportation impact taxes (or equivalent)
- 2) 10% ad valorem special assessment on new and existing commercial uses (including both improvements and land)
- 3) Public sector gap financing from incremental revenues

The three funding sources would work together in the following manner:

- *Residential impact taxes* accumulate during each stage of development and are then applied to reduce necessary borrowing in the subsequent bond issuance. It is assumed that residential impact taxes from pipeline development will not be available to supplement the revenues. It is assumed that the impact taxes are \$2420 per dwelling unit (i.e. that no developments opt to use the Alternative Review Procedure).
- *Special Assessment revenues* are collected beginning in Year 1. The Special Assessments in the years before the first bond is issued accumulate; subsequently, those revenues are used to reduce the required amount of the first bond. In the year the bond is issued is a bondable income stream, i.e. it is assumed that the Special Assessment in subsequent years will not be less than the Special Assessment in the year the bond is issued. Any excess Special Assessment accumulates and reduces the amount of the subsequent bond.
- *Public sector gap financing* is assumed to cover the remaining gap between the necessary bond payments and the bondable revenue stream from special assessments.

It is assumed that a set portion of the General Fund increment in each year could be directed towards the District. In each year, some of that amount would be applied to the current bond obligations, while the remainder would accumulate. Accumulated incremental revenues would then be applied to reduce the amount of borrowing necessary in the subsequent infrastructure phase.

Obviously, there are alternative ways to structure the incremental revenue portion of the financing mechanism. For example, the incremental revenue captured in each year could simply be the amount of incremental revenue necessary to close the financing gap in that year. This alternative is easy to model, but lacks predictability.

4.1 THE NEED FOR PUBLIC-PRIVATE FINANCING

Impact tax revenues alone fall far short of generating sufficient revenue to match the costs of infrastructure in the White Flint Sector Plan.

Table 14: Total Transportation Impact Tax Potential

Total Transportation Impact Tax Revenue Potential			
Use	D/U or Square Feet	Impact Tax Rate	Impact Tax Revenue
Dwelling Units	9,800	\$2,420	\$23,716,000
Office	2,831,746	\$4.85	\$13,733,966
Retail	1,887,830	\$4.34	\$8,193,184
Industrial	317,058	\$2.43	\$770,451
Other	0		\$0
Hotel	653,366	\$2.43	\$1,587,680
<i>Total</i>			<i>\$48,001,281</i>

At current rates, the total transportation impact tax potential would not generate sufficient revenue to pay for either Rockville Pike or for the various mobility projects that have been designated as District projects.

Alternatively, if all infrastructure designated as District infrastructure were to be financed using special assessments (no captured impact taxes or incremental tax revenues), the assessment rate would be significantly higher. Holding the other assumptions in this analysis constant, the rate would need to be set at 25%, i.e. a 25% increase in the property tax bill for all commercial properties within the Sector Plan.

4.2 A NOTE ON INFRASTRUCTURE STAGING

The infrastructure staging plan calls for three stages. For purposes of this analysis it is assumed that the first two infrastructure stages are eight years long, and that the third is nine years. With the five year period for pipeline development, this results in a build-out horizon of thirty years.

These assumptions do not line up perfectly with the plan, which assumes infrastructure phases set by metered development (i.e. the next stage of infrastructure is funded when a certain number of residential units and non-residential square feet have been developed). However, it does approximate the Sector Plan's staging mechanism while avoiding the complexity of partial years.

4.3 PIPELINE DEVELOPMENT AND ITS RELATIONSHIP TO THE FINANCING MECHANISM

The development pipeline for the White Flint Sector Plan Area includes substantial approved-but-not-completed development.

- *Residential pipeline: 2,220 dwelling units*
- *Non-residential pipeline: 1.79 million square feet*

It is assumed that all pipeline development occurs, and build-out of the pipeline is spread evenly over years one through five. It is not assumed that impact taxes from pipeline development can be applied to pay for “District” transportation projects. In every other way, however, pipeline development is treated the same way that new development is treated through each of the Sector Plan’s defined “stages.”

The 10% special assessment on commercial uses applies to all existing and new commercial, and thus also applies to pipeline development. Special assessments on pipeline development accumulate in years the first five years and are then applied to reduce the amount of borrowing necessary to pay for Stage One infrastructure.

As with later development and redevelopment, a portion of the General Fund increment generated by pipeline development is captured and accumulates to reduce necessary borrowing for Stage One infrastructure bonds.

4.4 FINANCING MECHANISM: STAGE ONE INFRASTRUCTURE BOND

The first bond is issued on the basis of the Year 5 special assessment and tax increment and repayment would begin in Year 6. The bond has a repayment period of 20 years and an interest rate of 5%. The total “District” obligation under the Stage 1 master plan transportation infrastructure cost is \$54,000,000.

When the accumulated tax increment (10%¹⁰ of the increment from Years 1 through 5) and accumulated assessment (10% special assessment from Years 1 to 5) are applied, the amount to borrow is reduced.¹¹

¹⁰ 10% is the portion of the increment necessary to cover the financing gaps for all three stages of infrastructure, assuming that there is a point in time at which all three bonds will be in repayment.

¹¹ Of course, we could also apply any residential impact taxes that will be paid on pipeline projects to reduce the amount needed to borrow, but to do this would involve distinguishing between pipeline projects that have already gone to building permit and those that have not.

- \$54,000,000 in “District” master planned transportation infrastructure
- Less the \$11,427,169 accumulated special assessment on commercial uses¹²,
- Less \$4,249,614 from accumulated 10% of general fund tax increment
- Equals \$38,323,218
- At 5% over 20 years equals \$58,442,907 in principal and interest
- Equals level annual payment of \$2,922,145

In Year 6, repayment begins with the first of 20 annual payments in the amount of \$2,922,145. The security for those annual payments would be current levels of revenue (bondable streams of income). Put differently, it is assumed that beginning in Year 6 our income will never fall below Year 5 levels.

The Year 5 special assessment is \$2,513,206, so that is the amount that is “bondable.” That leaves the remainder to be paid for by the captured General Fund tax increment.

- \$2,922,145 level annual payment
- Less \$2,513,206 from special assessment
- Equals \$408,939 gap to be filled by tax increment

The annual GF tax increment that year is \$14,165,380. Only \$408,939, or 2.89% of the total Year 5 annual increment, is needed to cover the Stage 1 bond payments.

¹² The 10% special assessment applies to all commercial uses. The special assessment is applied to commercial improvements and land. Based on a review of parcel file data, it is assumed that the total annual (overall) property tax revenue from commercial land is roughly \$4.6 million, 10% of which comes to \$464,550.

Table 15: Stage One financing mechanism

Year	Special Assessment Revenue	Accumulated Special Assessment	Annual Net GF Increment	Captured Net GF Increment	Accumulated Captured Net GF Increment	Infrastructure Cost	Infrastructure Cost Less Accumulated Special Assessment and Captured Increment	Stage 1 balance (w/ interest @ 5% over 20 years)	Portion of Stage 1 bond from special assessment	Portion of Stage 1 bond from captured increment	Remaining Balance Stage 1 Bonds
0	\$1,943,775										
1	\$2,057,661	\$2,057,661	\$2,833,076	\$283,308	\$283,308						
2	\$2,171,547	\$4,229,209	\$5,666,152	\$566,615	\$849,923						
3	\$2,285,434	\$6,514,642	\$8,499,228	\$849,923	\$1,699,846						
4	\$2,399,320	\$8,913,962	\$11,332,304	\$1,133,230	\$2,833,076						
5	\$2,513,206	\$11,427,169	\$14,165,380	\$1,416,538	\$4,249,614	\$54,000,000	\$38,323,218	\$58,442,907	\$2,513,206	\$408,939	\$55,520,761
6	\$2,521,031		\$15,965,068	\$1,596,507	\$1,596,507				\$2,513,206	\$408,939	\$52,598,616
7	\$2,583,729		\$18,179,947	\$1,817,995	\$1,817,995				\$2,513,206	\$408,939	\$49,676,471
8	\$2,646,426		\$20,394,825	\$2,039,483	\$2,039,483				\$2,513,206	\$408,939	\$46,754,325
9	\$2,709,124		\$22,609,703	\$2,260,970	\$2,260,970				\$2,513,206	\$408,939	\$43,832,180
10	\$2,771,821		\$24,824,582	\$2,482,458	\$2,482,458				\$2,513,206	\$408,939	\$40,910,035
11	\$2,834,519		\$27,039,460	\$2,703,946	\$2,703,946				\$2,513,206	\$408,939	\$37,987,889
12	\$2,897,216		\$29,254,339	\$2,925,434	\$2,925,434				\$2,513,206	\$408,939	\$35,065,744
13	\$2,959,914		\$31,469,217	\$3,146,922	\$3,146,922				\$2,513,206	\$408,939	\$32,143,599
14	\$3,022,611		\$33,684,095	\$3,368,410	\$3,368,410				\$2,513,206	\$408,939	\$29,221,453
15	\$3,085,309		\$35,898,974	\$3,589,897	\$3,589,897				\$2,513,206	\$408,939	\$26,299,308
16	\$3,148,007		\$38,113,852	\$3,811,385	\$3,811,385				\$2,513,206	\$408,939	\$23,377,163
17	\$3,210,704		\$40,328,731	\$4,032,873	\$4,032,873				\$2,513,206	\$408,939	\$20,455,017
18	\$3,273,402		\$42,543,609	\$4,254,361	\$4,254,361				\$2,513,206	\$408,939	\$17,532,872
19	\$3,336,099		\$44,758,487	\$4,475,849	\$4,475,849				\$2,513,206	\$408,939	\$14,610,727
20	\$3,398,797		\$46,973,366	\$4,697,337	\$4,697,337				\$2,513,206	\$408,939	\$11,688,581
21	\$3,461,494		\$49,188,244	\$4,918,824	\$4,918,824				\$2,513,206	\$408,939	\$8,766,436
22	\$3,524,192		\$51,403,122	\$5,140,312	\$5,140,312				\$2,513,206	\$408,939	\$5,844,291
23	\$3,586,889		\$53,618,001	\$5,361,800	\$5,361,800				\$2,513,206	\$408,939	\$2,922,145
24	\$3,649,587		\$55,832,879	\$5,583,288	\$5,583,288				\$2,513,206	\$408,939	\$0
25	\$3,712,284		\$58,047,758	\$5,804,776	\$5,804,776				\$2,513,206	\$408,939	\$0

4.5 FINANCING MECHANISM: STAGE TWO INFRASTRUCTURE BOND

Once the Stage 1 infrastructure bonds have been issued, any special assessment revenues in excess of the Year 5 revenues (\$2,513,206) will accumulate and ultimately will be applied to reduce the necessary borrowing for Stage 2 infrastructure. Incremental General Fund revenues will also accumulate (difference between 10% of General Fund increment and the \$408,939 required to close the Stage 1 financing gap). In addition, residential impact taxes paid by Stage 1 development will accumulate and be applied to reduce the borrowing required for Stage 2.

The total cost of the District's obligations for Stage 2 master plan transportation infrastructure is \$35,750,000. This amount will be reduced by the amount of the accumulated Stage 1 impact taxes, as well as the accumulated 10% commercial special assessment and the accumulated 10% General Fund tax increment.

- \$35,750,000 in total "District" master planned transportation infrastructure
- Less Stage 1 accumulated residential impact tax equivalency of \$7,589,120¹³
- Less accumulated special assessment of \$1,818,132
- Less accumulated 10% GF increment of \$15,702,201
- Equals \$10,640,547
- At 5% over 20 years is \$16,226,835 in principal and interest
- Equals level annual payment of \$811,342

In Year 14, repayment of the Stage 2 bond begins with the first of 20 annual payments in the amount of \$811,342. The total Year 13 special assessment is \$2,959,914. Of that amount, the first \$2,513,206 is dedicated to paying off the Stage 1 bond. As such, the bondable special assessment revenue stream for Stage 2 is only \$446,708. That leaves the remaining \$364,634 to be filled by public sector gap financing.

- \$811,342 in level payment
- Less \$446,708 bondable from 10% special assessment on commercial
- Equals \$364,634 gap to be filled by tax increment

The \$364,634 for Stage 2 bonds is 2.11% of the Year 13 General Fund increment (\$17,303,837). An additional portion of the captured 10% tax increment is applied to the continuing obligations on Stage 1 bonds, with the remainder accumulating to reduce Stage 3 borrowing.

¹³ Total impact tax revenue is calculated on the basis of units at a particular point in time, rather than based on the 3,000 units in the staging plan. This was done to eliminate the need to go build the model using months rather than just years. The staging plan described in the Sector Plan is modified for the purposes of this analysis. For example, Stage 1 in the staging plan ends when 3,000 dwelling units and 2.0 million square feet of non-residential uses have been built. For purposes of this analysis, Stage 2 begins in the first full year after the 3,000th unit is built.

Table 16: Stage Two financing mechanism

Year	Special Assessment Revenue	Special Assessment Dedicated to Stage 1 Bonds	Amount Available for Stage 2	Special Assessment Dedicated to Stage 2 Bonds	Excess Accumulated Special Assessment	Accumulated Impact Tax Revenue	Annual Net GF Increment	Captured Net GF Increment	Accumulated Captured Net GF Increment	Infrastructure Cost	Infrastructure Cost Less Accumulated Revenues	Portion of Stage 2 bond from special assessment	Portion of Stage 2 bond from captured increment	Remaining Balance Stage 2 Bonds @ 5% over 20 years
13	\$2,959,914	\$2,513,206	\$446,708	\$0	\$1,818,132	\$7,589,120	\$33,684,095	\$3,368,410	\$15,702,201	\$35,750,000	\$10,640,547	\$446,708	\$364,634	\$16,226,835
14	\$3,022,611	\$2,513,206	\$446,708	\$62,698	\$125,395		\$35,898,974	\$3,589,897				\$446,708	\$364,634	\$15,415,493
15	\$3,085,309	\$2,513,206	\$446,708	\$188,093	\$250,790		\$38,113,852	\$3,811,385				\$446,708	\$364,634	\$14,604,151
16	\$3,148,007	\$2,513,206	\$446,708	\$313,488	\$376,185		\$40,328,731	\$4,032,873				\$446,708	\$364,634	\$13,792,810
17	\$3,210,704	\$2,513,206	\$446,708	\$438,883	\$501,580		\$42,543,609	\$4,254,361				\$446,708	\$364,634	\$12,981,468
18	\$3,273,402	\$2,513,206	\$446,708	\$564,278	\$626,975		\$44,758,487	\$4,475,849				\$446,708	\$364,634	\$12,170,126
19	\$3,336,099	\$2,513,206	\$446,708	\$689,673	\$752,370		\$46,973,366	\$4,697,337				\$446,708	\$364,634	\$11,358,784
20	\$3,398,797	\$2,513,206	\$446,708	\$814,978	\$889,673		\$49,188,244	\$4,918,824				\$446,708	\$364,634	\$10,547,443
21	\$3,461,494	\$2,513,206	\$446,708	\$940,283	\$1,015,370		\$51,403,122	\$5,140,312				\$446,708	\$364,634	\$9,736,101
22	\$3,524,192	\$2,513,206	\$446,708	\$1,065,678	\$1,140,673		\$53,618,001	\$5,361,800				\$446,708	\$364,634	\$8,924,759
23	\$3,586,889	\$2,513,206	\$446,708	\$1,191,073	\$1,266,073		\$55,832,879	\$5,583,288				\$446,708	\$364,634	\$8,113,417
24	\$3,649,587	\$2,513,206	\$446,708	\$1,316,473	\$1,391,473		\$58,047,758	\$5,804,776				\$446,708	\$364,634	\$7,302,076
25	\$3,712,284	\$2,513,206	\$446,708	\$1,441,873	\$1,516,873		\$60,262,636	\$6,026,264				\$446,708	\$364,634	\$6,490,734
26	\$3,774,982	\$0	\$446,708	\$1,567,273	\$1,641,873		\$62,477,514	\$6,247,751				\$446,708	\$364,634	\$5,679,392
27	\$3,837,679	\$0	\$446,708	\$1,692,673	\$1,767,273		\$64,692,393	\$6,469,239				\$446,708	\$364,634	\$4,868,050
28	\$3,900,377	\$0	\$446,708	\$1,818,073	\$1,892,673		\$66,907,271	\$6,690,727				\$446,708	\$364,634	\$4,056,709
29	\$3,963,074	\$0	\$446,708	\$1,943,473	\$2,018,073		\$69,122,150	\$6,912,215				\$446,708	\$364,634	\$3,245,367
30	\$4,025,772	\$0	\$446,708	\$2,068,873	\$2,143,473		\$69,122,150	\$6,912,215				\$446,708	\$364,634	\$2,434,025
31	\$4,025,772	\$0	\$446,708	\$2,194,273	\$2,268,873		\$69,122,150	\$6,912,215				\$446,708	\$364,634	\$1,622,683
32	\$4,025,772	\$0	\$446,708	\$2,319,673	\$2,394,273		\$69,122,150	\$6,912,215				\$446,708	\$364,634	\$811,342
33	\$4,025,772	\$0	\$446,708	\$2,445,073	\$2,519,673		\$69,122,150	\$6,912,215				\$446,708	\$364,634	\$0

4.6 FINANCING MECHANISM: STAGE THREE INFRASTRUCTURE BOND

Once the Stage 2 infrastructure bonds have been issued, any special assessment revenues in excess of those necessary to cover the private portion of the Stage 1 and Stage 2 bonds will accumulate and ultimately will be applied to reduce the necessary borrowing for Stage 3 infrastructure. Incremental General Fund revenues will also accumulate (difference between 10% of General Fund increment and the continuing gap finance obligations for Stage 1 and Stage 2 infrastructure) to reduce necessary borrowing. Residential impact taxes paid by Stage 2 development will accumulate and be applied to reduce the borrowing required for Stage 3.

The total cost of the District's obligations for Stage 3 master plan transportation infrastructure is \$81,500,000. This amount will be reduced by the amount of the accumulated Stage 2 impact taxes, as well as the accumulated 10% commercial special assessment and the accumulated 10% General Fund tax increment.

- \$81,500,000 in total "District" master planned transportation infrastructure
- Less Stage 2 accumulated residential impact tax equivalency of \$7,589,120
- Less accumulated special assessment of \$2,257,111
- Less accumulated 10% GF increment of \$29,877,423
- Equals \$41,776,347
- At 5% over 20 years is \$63,708,929 in principal and interest
- Equals level annual payment of \$3,185,466

Starting in Year 22, repayment of the Stage 3 bond begins with the first of 20 annual payments in the amount of \$3,185,466. The total Year 21 special assessment is \$3,461,494. Of that amount, the first \$2,513,206 is dedicated to paying off the Stage 1 bond, with \$446,708 dedicated to paying off the Stage 2 bond. As such, the remaining bondable special assessment revenue stream for Stage 3 is only \$501,580. That leaves a gap of \$2,683,866 to be filled by public sector gap financing.

- \$3,185,466 in level payment
- Less \$501,580 bondable from 10% special assessment on commercial
- Equals \$2,683,866 gap to be filled by tax increment

The public obligation of \$2,683,866 for Stage 3 bonds is 7.70% of the Year 21 General Fund increment (\$34,869,073). No excess increment accumulates in Stage 3. It is further assumed that excess special assessments in Stage 3 are applied to repay the public sector for the Stage 3 gap financing. It is assumed that Stage 3 impact taxes are no longer captured by the District, but instead accrue to the County.

Table 17: Stage Three financing mechanism

Year	Special Assessment Revenue	Special Assessment Dedicated to Stage 1 Bonds	Special Assessment Dedicated to Stage 2 Bonds	Special Assessment Available for Stage 3	Excess Accumulated Special Assessment	Accumulated Impact Tax Revenue	Annual Net GF Increment	Captured Net GF Increment	Accumulated Captured Net GF Increment	Infrastructure Cost	Infrastructure Cost Less Accumulated Revenues	Portion of Stage 3 bond from special assessment	Portion of Stage 3 bond from captured increment	Remaining Balance Stage 3 Bonds @ 5% over 20 years
21	\$3,461,494	\$2,513,206	\$446,708	\$501,580	\$2,257,111	\$7,589,120	\$51,403,122	\$5,140,312	\$29,877,423	\$81,500,000	\$41,776,347	\$501,580	\$2,683,866	\$63,708,929
22	\$3,524,192	\$2,513,206	\$446,708	\$446,708	\$62,698	\$53,618,001	\$5,361,800	\$5,361,800	\$501,580	\$2,683,866	\$57,338,036	\$2,683,866	\$2,683,866	\$60,523,482
23	\$3,586,889	\$2,513,206	\$446,708	\$446,708	\$180,267	\$55,832,879	\$5,583,288	\$5,583,288	\$501,580	\$2,683,866	\$54,152,590	\$2,683,866	\$2,683,866	\$57,338,036
24	\$3,649,587	\$2,513,206	\$446,708	\$446,708	\$242,965	\$58,047,758	\$5,804,776	\$5,804,776	\$501,580	\$2,683,866	\$50,967,143	\$2,683,866	\$2,683,866	\$54,152,590
25	\$3,712,284	\$2,513,206	\$446,708	\$446,708	\$305,662	\$60,262,636	\$6,026,264	\$6,026,264	\$501,580	\$2,683,866	\$47,781,697	\$2,683,866	\$2,683,866	\$50,967,143
26	\$3,774,982	\$0	\$446,708	\$446,708	\$2,944,264	\$62,477,514	\$6,247,751	\$6,247,751	\$501,580	\$2,683,866	\$44,596,250	\$2,683,866	\$2,683,866	\$47,781,697
27	\$3,837,679	\$0	\$446,708	\$446,708	\$3,006,961	\$64,692,393	\$6,469,239	\$6,469,239	\$501,580	\$2,683,866	\$41,410,804	\$2,683,866	\$2,683,866	\$44,596,250
28	\$3,900,377	\$0	\$446,708	\$446,708	\$3,069,659	\$66,907,271	\$6,690,727	\$6,690,727	\$501,580	\$2,683,866	\$38,225,357	\$2,683,866	\$2,683,866	\$41,410,804
29	\$3,963,074	\$0	\$446,708	\$446,708	\$3,132,356	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$35,039,911	\$2,683,866	\$2,683,866	\$38,225,357
30	\$4,025,772	\$0	\$446,708	\$446,708	\$3,132,356	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$31,854,464	\$2,683,866	\$2,683,866	\$35,039,911
31	\$4,025,772	\$0	\$446,708	\$446,708	\$3,132,356	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$28,669,018	\$2,683,866	\$2,683,866	\$31,854,464
32	\$4,025,772	\$0	\$446,708	\$446,708	\$3,132,356	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$25,483,572	\$2,683,866	\$2,683,866	\$28,669,018
33	\$4,025,772	\$0	\$446,708	\$446,708	\$3,132,356	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$22,298,125	\$2,683,866	\$2,683,866	\$25,483,572
34	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$19,112,679	\$2,683,866	\$2,683,866	\$22,298,125
35	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$15,927,232	\$2,683,866	\$2,683,866	\$19,112,679
36	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$12,741,786	\$2,683,866	\$2,683,866	\$15,927,232
37	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$9,556,339	\$2,683,866	\$2,683,866	\$12,741,786
38	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$6,370,893	\$2,683,866	\$2,683,866	\$9,556,339
39	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$3,185,446	\$2,683,866	\$2,683,866	\$6,370,893
40	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$0	\$2,683,866	\$2,683,866	\$3,185,446
41	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$69,122,150	\$6,912,215	\$6,912,215	\$501,580	\$2,683,866	\$0	\$2,683,866	\$2,683,866	\$0

Table 16 shows that Stage 3 bonds are largely financed by the public sector. In fact, the private sector would pay only \$10,031,603 in Stage 3 compared to the public sector's \$53,677,326. However, by continuing to assess the special assessment on commercial uses, much of the public sector's Stage 3 obligations (not including the accumulated excess tax increment) could be repaid.

Assuming, as this analysis does, that private development continues in Stage 3, at the end of the repayment period for the Stage 3 bonds, all of the public sector's Stage 3 bond payments would have been repaid through excess special assessments.

Even assuming (worst case scenario) that no new development occurs in Stage 3, excess accumulated revenues could repay the public sector for all but \$8,794,918 of the gap financing paid during the life of the Stage 3 bond. This is the case because the full repayment of Stage 1 and Stage 2 bonds will occur, freeing up all remaining special assessment revenues to be applied to repay the public sector for Stage 3 gap financing.

Table 18: Stage Three repayment of gap financing

Year	Special Assessment Revenue	Special Assessment Dedicated to Stage 1 Bonds	Special Assessment Dedicated to Stage 2 Bonds	Amount Available for Stage 3	Excess Accumulated Special Assessment	Portion of Stage 3 bond from special assessment	Portion of Stage 3 bond from captured increment	Remaining Balance Stage 3 Bonds @ 5% over 20 years	Repayment from Excess Accumulated Special Assessment	Total Stage 3 Public Sector Obligation
21	\$3,461,494	\$2,513,206	\$446,708	\$501,580	\$2,257,111	\$501,580	\$2,683,866	\$63,708,929		\$53,677,326
22	\$3,524,192	\$2,513,206	\$446,708	\$446,708	\$62,698	\$501,580	\$2,683,866	\$60,523,482	-\$62,698	\$53,614,629
23	\$3,586,889	\$2,513,206	\$446,708	\$446,708	\$180,267	\$501,580	\$2,683,866	\$57,338,036	-\$180,267	\$53,434,361
24	\$3,649,587	\$2,513,206	\$446,708	\$446,708	\$242,965	\$501,580	\$2,683,866	\$54,152,590	-\$242,965	\$53,191,396
25	\$3,712,284	\$2,513,206	\$446,708	\$446,708	\$305,662	\$501,580	\$2,683,866	\$50,967,143	-\$305,662	\$52,885,734
26	\$3,774,982	\$0	\$446,708	\$446,708	\$2,881,566	\$501,580	\$2,683,866	\$47,781,697	-\$2,881,566	\$50,004,168
27	\$3,837,679	\$0	\$446,708	\$446,708	\$2,944,264	\$501,580	\$2,683,866	\$44,596,250	-\$2,944,264	\$47,059,904
28	\$3,900,377	\$0	\$446,708	\$446,708	\$3,006,961	\$501,580	\$2,683,866	\$41,410,804	-\$3,006,961	\$44,052,943
29	\$3,963,074	\$0	\$446,708	\$446,708	\$3,069,659	\$501,580	\$2,683,866	\$38,225,357	-\$3,069,659	\$40,983,284
30	\$4,025,772	\$0	\$446,708	\$446,708	\$3,132,356	\$501,580	\$2,683,866	\$35,039,911	-\$3,132,356	\$37,850,928
31	\$4,025,772	\$0	\$446,708	\$446,708	\$3,132,356	\$501,580	\$2,683,866	\$31,854,464	-\$3,132,356	\$34,718,572
32	\$4,025,772	\$0	\$446,708	\$446,708	\$3,132,356	\$501,580	\$2,683,866	\$28,669,018	-\$3,132,356	\$31,586,216
33	\$4,025,772	\$0	\$446,708	\$446,708	\$3,132,356	\$501,580	\$2,683,866	\$25,483,572	-\$3,132,356	\$28,453,860
34	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$501,580	\$2,683,866	\$22,298,125	-\$3,579,064	\$24,874,796
35	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$501,580	\$2,683,866	\$19,112,679	-\$3,579,064	\$21,295,732
36	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$501,580	\$2,683,866	\$15,927,232	-\$3,579,064	\$17,716,668
37	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$501,580	\$2,683,866	\$12,741,786	-\$3,579,064	\$14,137,604
38	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$501,580	\$2,683,866	\$9,556,339	-\$3,579,064	\$10,558,540
39	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$501,580	\$2,683,866	\$6,370,893	-\$3,579,064	\$6,979,476
40	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$501,580	\$2,683,866	\$3,185,446	-\$3,579,064	\$3,400,412
41	\$4,025,772	\$0	\$0	\$0	\$3,579,064	\$501,580	\$2,683,866	\$0	-\$3,579,064	-\$178,652

Table 19: Stage Three repayment of gap financing, special assessment revenues frozen

Year	Special Assessment Revenue	Special Assessment Dedicated to Stage 1 Bonds	Special Assessment Dedicated to Stage 2 Bonds	Amount Available for Stage 3	Excess Accumulated Special Assessment	Portion of Stage 3 bond from special assessment	Portion of Stage 3 bond captured increment	Remaining Balance Stage 3 Bonds @ 5% over 20 years	Repayment from Excess Accumulated Special Assessment	Total Stage 3 Public Sector Obligation
21	\$3,461,494	\$2,513,206	\$446,708	\$501,580	\$2,257,111	\$501,580	\$2,683,866	\$63,708,929		\$53,677,326
22	\$3,461,494	\$2,513,206	\$446,708		\$54,872	\$501,580	\$2,683,866	\$60,523,482	-\$54,872	\$53,622,454
23	\$3,461,494	\$2,513,206	\$446,708		\$54,872	\$501,580	\$2,683,866	\$57,338,036	-\$54,872	\$53,567,582
24	\$3,461,494	\$2,513,206	\$446,708		\$54,872	\$501,580	\$2,683,866	\$54,152,590	-\$54,872	\$53,512,709
25	\$3,461,494	\$2,513,206	\$446,708		\$54,872	\$501,580	\$2,683,866	\$50,967,143	-\$54,872	\$53,457,837
26	\$3,461,494	\$0	\$446,708		\$2,568,079	\$501,580	\$2,683,866	\$47,781,697	-\$2,568,079	\$50,889,758
27	\$3,461,494	\$0	\$446,708		\$2,568,079	\$501,580	\$2,683,866	\$44,596,250	-\$2,568,079	\$48,321,680
28	\$3,461,494	\$0	\$446,708		\$2,568,079	\$501,580	\$2,683,866	\$41,410,804	-\$2,568,079	\$45,753,601
29	\$3,461,494	\$0	\$446,708		\$2,568,079	\$501,580	\$2,683,866	\$38,225,357	-\$2,568,079	\$43,185,523
30	\$3,461,494	\$0	\$446,708		\$2,568,079	\$501,580	\$2,683,866	\$35,039,911	-\$2,568,079	\$40,617,444
31	\$3,461,494	\$0	\$446,708		\$2,568,079	\$501,580	\$2,683,866	\$31,854,464	-\$2,568,079	\$38,049,365
32	\$3,461,494	\$0	\$446,708		\$2,568,079	\$501,580	\$2,683,866	\$28,669,018	-\$2,568,079	\$35,481,287
33	\$3,461,494	\$0	\$446,708		\$2,568,079	\$501,580	\$2,683,866	\$25,483,572	-\$2,568,079	\$32,913,208
34	\$3,461,494	\$0	\$0		\$3,014,786	\$501,580	\$2,683,866	\$22,298,125	-\$3,014,786	\$29,898,422
35	\$3,461,494	\$0	\$0		\$3,014,786	\$501,580	\$2,683,866	\$19,112,679	-\$3,014,786	\$26,883,636
36	\$3,461,494	\$0	\$0		\$3,014,786	\$501,580	\$2,683,866	\$15,927,232	-\$3,014,786	\$23,868,849
37	\$3,461,494	\$0	\$0		\$3,014,786	\$501,580	\$2,683,866	\$12,741,786	-\$3,014,786	\$20,854,063
38	\$3,461,494	\$0	\$0		\$3,014,786	\$501,580	\$2,683,866	\$9,556,339	-\$3,014,786	\$17,839,277
39	\$3,461,494	\$0	\$0		\$3,014,786	\$501,580	\$2,683,866	\$6,370,893	-\$3,014,786	\$14,824,490
40	\$3,461,494	\$0	\$0		\$3,014,786	\$501,580	\$2,683,866	\$3,185,446	-\$3,014,786	\$11,809,704
41	\$3,461,494	\$0	\$0		\$3,014,786	\$501,580	\$2,683,866	\$0	-\$3,014,786	\$8,794,918

4.7 ASSESSING THE PUBLIC AND PRIVATE OBLIGATIONS UNDER THE PROPOSED FINANCING MECHANISM

The total costs of each stage are dependent upon the District’s total infrastructure bill in the stage, and upon the availability of accumulated revenues to reduce the required borrowing.

Table 21: “District” infrastructure finance, by stage by source

Infrastructure Financing, by Stage and by Source				
	Stage 1	Stage 2	Stage 3	Total
Impact Tax	\$0	\$7,589,120	\$7,589,120	\$15,178,240
Accumulated 10% Special Assessment	\$11,427,169	\$1,818,132	\$2,257,111	
Special Assessment for Bond Payment	\$50,264,124	\$8,934,155	\$10,031,603	
Accumulated Special Assessment Repayment Adjustment	\$0	\$0	\$53,855,979	
Total Special Assessment	\$61,691,292	\$10,752,287	\$66,144,692	\$138,588,271
Accumulated 10% Tax Increment	\$4,249,614	\$15,702,201	\$29,877,423	
Tax Increment for Bond Payment	\$8,178,783	\$7,292,680	\$53,677,326	
Tax Increment Repayment Adjustment	\$0	\$0	-\$53,855,979	
Total Tax Increment	\$12,428,397	\$22,994,880	\$29,698,770	\$65,122,048
Total	\$74,119,689	\$41,336,287	\$103,432,582	\$218,888,559

Including when interest and prepayment through accumulated revenues are both included, the total costs to the District are \$218,888,559. The financing mechanism described in the Sector Plan and analyzed in this memorandum would place most of the burden of the cost of “District” infrastructure on the private sector (via special assessments).

Figure 1: Proportional breakdown of district financing, by source

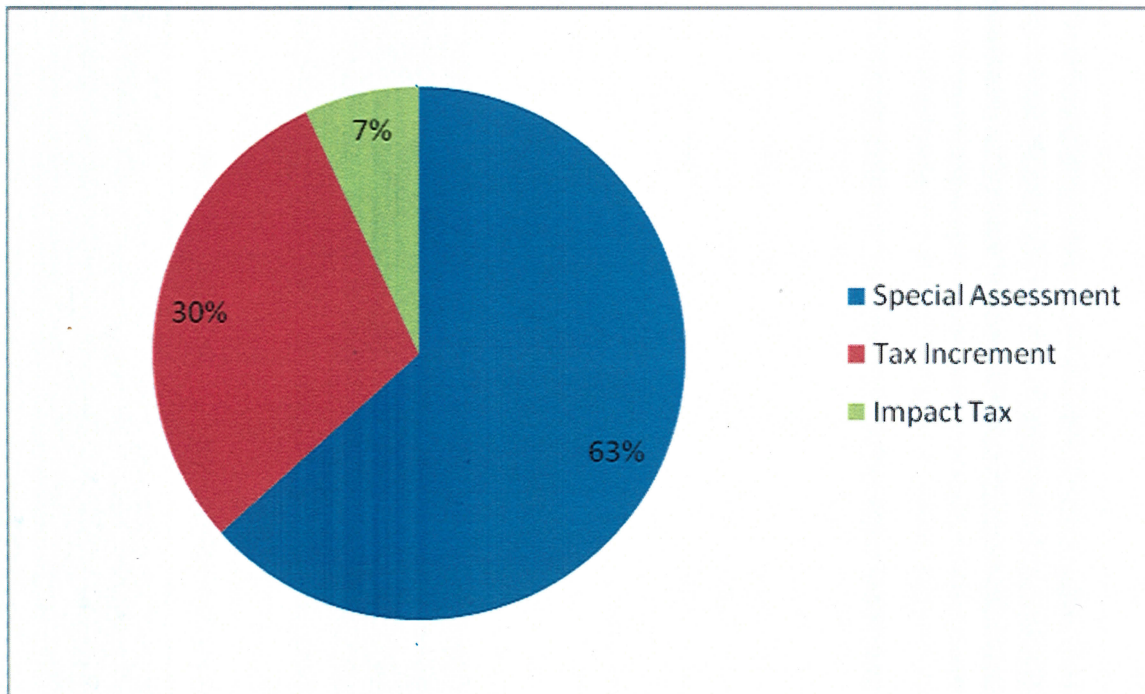
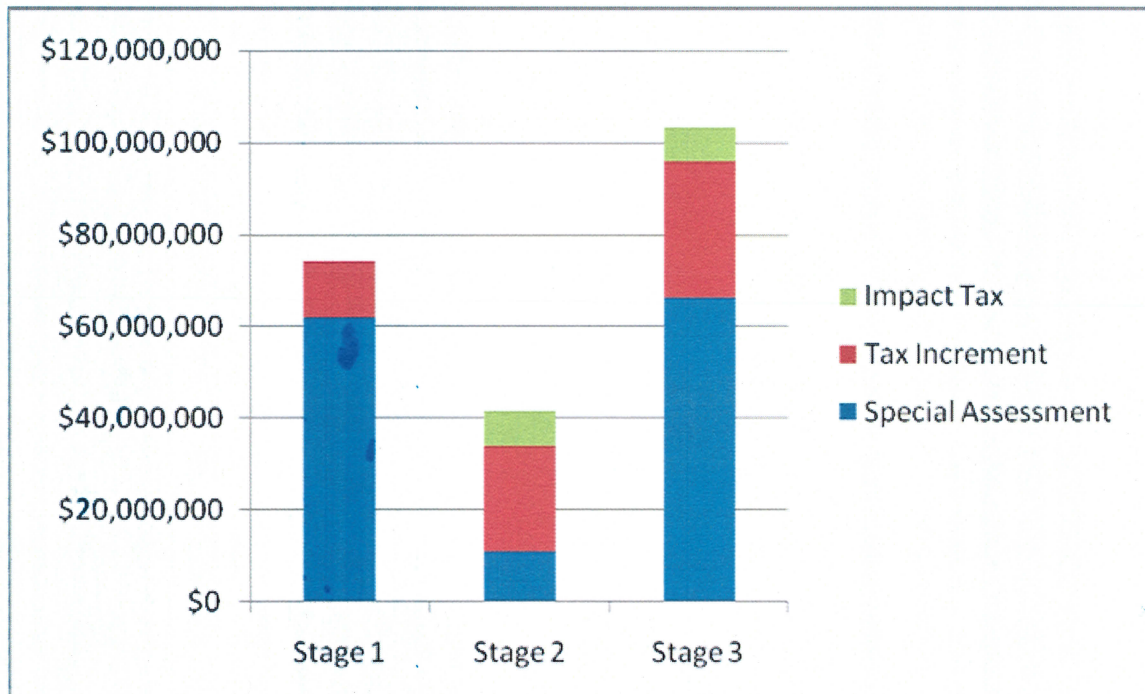


Figure 2: Financing by source and by stage



Public sector gap financing would play a relatively small role in the first stage of development, which is largely funded by the special assessments on existing and pipeline commercial development. In the second stage, the public sector could bear more than two-thirds of the total burden for “District” infrastructure. In the third stage, public sector gap financing would be critical; however, most of the public sector burden in the third stage could be repaid by excess “accumulated” special assessments generated in Stage 3 once the bonds for the first two stages have been retired.

The special assessment, including excess special assessment in Stage 3, covers 63% of the cost of “District” infrastructure, while captured tax increment covers only 30%. Captured residential impact taxes cover the remaining 7% of the District’s obligations.

Overall, the total public sector burden for gap financing (\$65,122,048) is roughly equal to the cost of the Rockville Pike improvements (without right-of-way acquisition costs), which is estimated to be roughly \$66 million. In essence, the effect of the financing mechanism is to take the financing gap created by the cost of the Rockville Pike improvements and spread that cost over all three stages of infrastructure development.

5.0 CONCLUSION

The proposed financing mechanism—as described generally in the Sector Plan and in greater detail in this memorandum—successfully pays for all district infrastructure projects if 10% of the total incremental General Fund revenues are captured by the District. Roughly two-thirds of the total cost of District infrastructure is borne by the private sector, with the remainder paid for by public sector gap financing.

The financing mechanism has three sources of revenue, each of which has unique characteristics.

- *Special assessment revenues* are most important in the first and last stage. In the first stage, the special assessments on existing and pipeline development allow the mechanism to pay for new infrastructure that could accelerate additional private development. In the last stage, the special assessment revenues could serve either to cover much of the cost of infrastructure or to repay the public sector for its contributions to the third stage of infrastructure projects. Because the special assessment draws revenue from existing uses it is also the most stable and reliable of the three.
- *Captured General Fund tax increment* is critical to the success of Stages 2 and 3. The tax increment is more dependent upon new development than is the special assessment revenue.
- *Captured residential impact taxes* reduce the risk in Stage 2 and Stage 3. This revenue is important because residential impact taxes in Stages 1 and 2 must occur in order for the staging mechanism to advance. While impact taxes are by far the smallest of the three sources of revenue, they do play an important role in that they reduce the amount of necessary borrowing.

Other potential structures of the financing mechanism may effectively achieve the objectives of the Sector Plan. Of those alternatives, the ones most likely to succeed will bear substantial similarity to the financing mechanism described in this memorandum.

APPENDIX A: TRANSPORTATION COSTS (EXCERPT)

The White Flint Sector Plan proposes the establishment of the White Flint Redevelopment Implementation Authority, an innovative implementation program designed to accomplish two objectives:

- Ensure that the infrastructure required for the Plan is affordable and apportioned equitably among public and private stakeholders
- Manage infrastructure prioritization and delivery to avoid “lumpy” infrastructure delivery typical of the development review exaction process

Exhibit 7 summarizes the transportation infrastructure costs by Sector Plan stage and expected responsibility. The capital cost estimates reflect the following assumptions:

- State projects include the Montrose Parkway interchange and the extension of Montrose Parkway east to the CSX tracks (Phase II of the SHA project for Rockville Pike / Montrose Road interchange improvements). The \$20M estimated cost for the latter improvement is symbolic as there are no proposals to construct the roadway up to, but not across, the CSX tracks.
- Local projects include the portions of Nebel Street Extended (north of Randolph Road), Chapman Avenue, and Citadel Avenue already in the County’s implementation program.
- Private projects include those portions of the public street system described in Table 5 of the Public Hearing Draft Plan that are in control of individual property owners and would be required for internal site access and design (such as Mid Pike Plaza, North Bethesda Town Center, and White Flint Mall).
- District projects are those assumed to be the responsibility of the White Flint Redevelopment Implementation Authority, including the construction or reconstruction of:
 - Rockville Pike (\$66M),
 - Metrorail Station north entrance (\$25M)
 - MARC station and supporting access (\$13M)
 - Circulator shuttles (\$5M)
 - Local streets not required for site access and design (\$62M)
- Right-of-way costs are not included in the cost estimates. New streets in the network are located where redevelopment is expected to occur so that, in a typical development process, right-of-way dedication would generally be expected, with density calculated from the gross tract area prior to dedication. The White Flint Redevelopment Implementation Authority will have two options for addressing right-of-way acquisition:
 - establish an infrastructure delivery process by which right-of-way is acquired from its members without fee simple acquisition at a cost to the public sector, or
 - revision of financing schema to include right-of-way acquisition costs.
- Roadway capital costs are based on the following unit costs:

- \$50M per mile for Rockville Pike reconstruction based on cost estimates for similar portions of New York Avenue in Washington DC and US 1 in College Park, MD.
- \$25M per mile for local roadway construction, based on the County's four-lane Nebel Street Extended project (CIP project 500401) at \$26M per mile and two-lane Citadel Avenue (CIP project 500310) at \$24M per mile

Transportation Infrastructure Costs, by mode and by stage, (\$millions)								
	State		Local		Private		District	TOTAL
Public Transit Elements								
Stage One	\$	-	\$	-	\$	-	\$ 26.50	\$ 26.50
Stage Two	\$	-	\$	-	\$	-	\$ 3.00	\$ 3.00
Stage Three	\$	-	\$	-	\$	-	\$ 13.00	\$ 13.00
TOTAL	\$	-	\$	-	\$	-	\$ 42.50	\$ 42.50
Streets and Bikeways								
Stage One	\$	47.20	\$	20.10	\$	7.50	\$ 27.50	\$ 102.30
Stage Two	\$	20.00	\$	-	\$	43.75	\$ 32.75	\$ 96.50
Stage Three	\$	-	\$	-	\$	9.25	\$ 68.50	\$ 77.75
TOTAL	\$	67.20	\$	20.10	\$	60.50	\$ 128.75	\$ 276.55
Total Transportation Network Elements								
Stage One	\$	47.20	\$	20.10	\$	7.50	\$ 54.00	\$ 128.80
Stage Two	\$	20.00	\$	-	\$	43.75	\$ 35.75	\$ 99.50
Stage Three	\$	-	\$	-	\$	9.25	\$ 81.50	\$ 90.75
TOTAL	\$	67.20	\$	20.10	\$	60.50	\$ 171.25	\$ 319.05

APPENDIX B: ANALYSIS OF SELECTED ALTERNATIVES

Alternative 1: No impact taxes captured by District

In this alternative, transportation impact taxes generated by new development within the Sector Plan are not captured and applied to District infrastructure projects. This revenue would instead be available to fund public sector improvements under the rules established in the most recent Growth Policy. However, by removing these revenues from the District, the financing gap for the District is increased. That would result in higher public sector gap financing obligations, increased costs to the private sector, or delays moving through the staging plan.

Table B1: Infrastructure financing, by stage and by source, for Alternative 1

Infrastructure Financing, by Stage and by Source				
	Stage 1	Stage 2	Stage 3	Total
Impact Tax	\$0	\$0	\$0	\$0
Accumulated 10% Special Assessment	\$11,427,169	\$1,818,132	\$2,257,111	
Special Assessment for Bond Payment	\$50,264,124	\$8,934,155	\$10,031,603	
Accumulated Special Assessment Repayment Adjustment	\$0	\$0	\$53,855,979	
Total Special Assessment	\$61,691,292	\$10,752,287	\$66,144,692	\$138,588,271
Accumulated 10% Tax Increment	\$4,249,614	\$15,702,201	\$29,877,423	
Tax Increment for Bond Payment	\$8,178,783	\$18,866,088	\$65,250,734	
Tax Increment Repayment Adjustment	\$0	\$0	-\$53,855,979	
Total Tax Increment	\$12,428,397	\$34,568,288	\$41,272,178	\$88,268,864
Total	\$74,119,689	\$45,320,575	\$107,416,870	\$226,857,135

Table B2: Stage 1 comparison of proposed financing mechanism to Alternative 1

Revenue Source	Stage 1	
	Proposed	Alternative 1
Impact Tax Revenue	\$0	\$0
Special Tax/Assessment Revenue	\$61,691,292	\$61,691,292
Tax Increment Applied to Cover Gap	\$12,428,397	\$12,428,397
Total	\$74,119,689	\$74,119,689

Table B3: Stage 2 comparison of proposed financing mechanism to Alternative 1

Revenue Source	Stage 2	
	Proposed	Alternative 1
Impact Tax Revenue	\$7,589,120	\$0
Special Tax/Assessment Revenue	\$10,752,287	\$10,752,287
Tax Increment Applied to Cover Gap	\$22,994,880	\$34,568,288
Total	\$41,336,287	\$45,320,575

In this instance, the District loses revenue (\$7,589,120) from the residential impact tax equivalent. That money is not necessarily gained by the public sector, due to crediting allowed under the current system. The lost revenue translates into an increase in the financing gap from \$23 million to \$34.6 million. If that gap is to be filled by the public sector, it could end up being less costly to allow the District to capture the impact tax revenues (though all figures here are in 2008\$).

Table B4: Stage 3 comparison of proposed financing mechanism to Alternative 1

Revenue Source	Stage 3	
	Proposed	Alternative 1
Impact Tax Revenue	\$7,589,120	\$0
Special Tax/Assessment Revenue	\$66,144,692	\$66,144,692
Tax Increment Applied to Cover Gap	\$29,698,770	\$41,272,178
Total	\$103,432,582	\$107,416,870

Again, the loss of revenue from the residential impact tax equivalent payment increases the financing gap, and thus potentially increases the cost to the public sector.

Table B5: Total (all stages) comparison of proposed financing mechanism to Alternative 1

Revenue Source	Total	
	Proposed	Alternative 1
Impact Tax Revenue	\$15,178,240	\$0
Special Tax/Assessment Revenue	\$138,588,271	\$138,588,271
Tax Increment Applied to Cover Gap	\$65,122,048	\$88,268,864
Total	\$218,888,559	\$226,857,135

Alternative 1 results in an increase in the size of the financing gap from \$65.1 million to \$88.3 million, as well as an increase in the overall cost of District infrastructure.

Additional variations on this alternative include replacing the District’s revenue from residential impact taxes with other private money, either through the exaction process or through a higher special tax/assessment on commercial uses.

Alternative 2: Reduce special tax/assessment from 10% to 5%

Alternative 2a: Difference made up by capturing commercial transportation impact taxes

In this alternative, it is assumed that all new and existing commercial uses pay a special tax/assessment of 5% above their ad valorem real property tax bill. It is further assumed that new commercial development makes a payment to the District that is equivalent to the current transportation impact tax rates for commercial development in a metro station policy area. The revenues from commercial impact taxes were calculated by deriving a weighted average rate for commercial development by use. The total impact tax at build-out was spread evenly over 25 years.

Table B6: Infrastructure financing, by stage and by source, for Alternative 2a

Infrastructure Financing, by Stage and by Source				
	Stage 1	Stage 2	Stage 3	Total
Impact Tax	\$0	\$15,360,410	\$15,360,410	\$30,720,820
Accumulated 5% Special Assessment	\$5,713,584	\$909,066	\$1,128,555	
Special Assessment for Bond Payment	\$25,132,062	\$4,467,078	\$5,015,801	
Accumulated Special Assessment Repayment Adjustment	\$0	\$0	\$26,927,989	
Total Special Assessment	\$30,845,646	\$5,376,143	\$33,072,346	\$69,294,136
Accumulated 15% Tax Increment	\$6,374,421	\$12,947,079	\$34,209,912	
Tax Increment for Bond Payment	\$38,783,730	\$5,496,426	\$41,955,912	
Tax Increment Repayment Adjustment	\$0	\$0	-\$26,927,989	
Total Tax Increment	\$45,158,151	\$18,443,505	\$49,237,834	\$112,839,491
Total	\$76,003,797	\$39,180,059	\$97,670,590	\$212,854,446

This alternative results in a significant shift away from private financing of District infrastructure. If the increased gap is to be met by the public sector, the required public sector financing will be significantly higher than under the proposed financing mechanism.

Table B7: Stage 1 comparison of proposed financing mechanism to Alternative 2a

Revenue Source	Stage 1	
	Proposed	Alternative 2a
Impact Tax Revenue	\$0	\$0
Special Tax/Assessment Revenue	\$61,691,292	\$30,845,646
Tax Increment Applied to Cover Gap	\$12,428,397	\$45,158,151
Total	\$74,119,689	\$76,003,797

In Stage 1, Alternative 2a reduces the revenues from the special tax/assessment from \$61.7 million to \$30.8 million. The financing gap increases substantially, and the required portion of the general fund increment increases from 10% to 15%. The financing gap increases from \$12.4 million to \$45.2 million.

Table B8: Stage 2 comparison of proposed financing mechanism to Alternative 2a

Revenue Source	Stage 2	
	Proposed	Alternative 2a
Impact Tax Revenue	\$7,592,359	\$15,360,410
Special Tax/Assessment Revenue	\$10,752,287	\$5,376,143
Tax Increment Applied to Cover Gap	\$22,994,880	\$18,443,505
Total	\$41,339,527	\$39,180,059

In Stage 2, Alternative 2a performs similarly to the proposed financing mechanism. Commercial impact taxes paid by Stage 1 commercial development adds to the residential impact taxes, and together those impact taxes are applied to reduce the required borrowing for Stage 2 infrastructure. Revenues from the special tax/assessment on new and existing commercial uses drops, however the total commercial burden actually increases in this variation.

Table B9: Stage 3 comparison of proposed financing mechanism to Alternative 2a

Revenue Source	Stage 3	
	Proposed	Alternative 2a
Impact Tax Revenue	\$7,592,359	\$15,360,410
Special Tax/Assessment Revenue	\$66,144,692	\$33,072,346
Tax Increment Applied to Cover Gap	\$29,698,770	\$49,237,834
Total	\$103,435,821	\$97,670,590

Alternative 2a results in a significant shift from private to public financing for Stage 3 infrastructure. The gap is increased from \$29.7 million to \$49.2 million.

Table B10: Total (all stages) comparison of proposed financing mechanism to Alternative 2a

Revenue Source	Total	
	Proposed	Variation 2a
Impact Tax Revenue	\$15,184,718	\$30,720,820
Special Tax/Assessment Revenue	\$138,588,271	\$69,294,136
Tax Increment Applied to Cover Gap	\$65,122,048	\$112,839,491
Total	\$218,895,037	\$212,854,446

Though Alternative 2a results in a small decrease in the overall cost (because the accumulation of 15% of the general fund tax increment reduces borrowing), the total public sector burden increases from \$65.1 to \$112.8 million. Capturing commercial impact taxes and cutting in half the special tax/assessment results in a substantially greater financing gap.

Alternative 2b: Difference made up by increased public sector gap financing

As in the previous alternative, 2b requires that 15% of the general fund increment is captured in order to cover the Stage 1 bonds, and the special tax/assessment has been reduced from 10% to 5% above the ad valorem real property tax for all new and existing commercial uses. Unlike the previous variation, the District does not charge and capture transportation impact tax equivalent payments to new commercial development.

Table B11: Infrastructure financing, by stage and by source, for Alternative 2b

Infrastructure Financing, by Stage and by Source				
	Stage 1	Stage 2	Stage 3	Total
Impact Tax	\$0	\$7,589,120	\$7,589,120	\$15,178,240
Accumulated 5% Special Assessment	\$5,713,584	\$909,066	\$1,128,555	
Special Assessment for Bond Payment	\$25,132,062	\$4,467,078	\$5,015,801	
Accumulated Special Assessment Repayment Adjustment	\$0	\$0	\$26,927,989	
Total Special Assessment	\$30,845,646	\$5,376,143	\$33,072,346	\$69,294,136
Accumulated 15% Tax Increment	\$6,374,421	\$12,947,079	\$34,209,912	
Tax Increment for Bond Payment	\$38,783,730	\$17,347,643	\$53,807,129	
Tax Increment Repayment Adjustment	\$0	\$0	-\$26,927,989	
Total Tax Increment	\$45,158,151	\$30,294,722	\$61,089,051	\$136,541,925
Total	\$76,003,797	\$43,259,986	\$101,750,517	\$221,014,300

Reducing the special tax/assessment without any increases in revenue from other sources obviously results in a substantial shift away from private sector financing.

Table B12: Stage 1 comparison of proposed financing mechanism to Alternative 2b

Revenue Source	Stage 1	
	Proposed	Alternative 2b
Impact Tax Revenue	\$0	\$0
Special Tax/Assessment Revenue	\$61,691,292	\$30,845,646
Tax Increment Applied to Cover Gap	\$12,428,397	\$45,158,151
Total	\$74,119,689	\$76,003,797

As in Alternative 2a, the increased financing gap requires an increase in the portion of incremental general fund revenues captured by the District from 10% to 15%. This is necessary because a reduced special tax/assessment and 10% of the increment are not sufficient to cover the bond payments on Stage 1 infrastructure.

Table B13: Stage 2 comparison of proposed financing mechanism to Alternative 2b

Revenue Source	Stage 2	
	Proposed	Alternative 2b
Impact Tax Revenue	\$7,589,120	\$7,589,120
Special Tax/Assessment Revenue	\$10,752,287	\$5,376,143
Tax Increment Applied to Cover Gap	\$22,994,880	\$30,294,722
Total	\$41,336,287	\$43,259,986

The reduction in special tax/assessment rates results in an increase in the financing gap from \$23 million to \$30.3 million.

Table B14: Stage 3 comparison of proposed financing mechanism to Alternative 2b

Revenue Source	Stage 3	
	Proposed	Alternative 2b
Impact Tax Revenue	\$7,589,120	\$7,589,120
Special Tax/Assessment Revenue	\$66,144,692	\$33,072,346
Tax Increment Applied to Cover Gap	\$29,698,770	\$61,089,051
Total	\$103,432,582	\$101,750,517

The financing gap in Stage 3 increases from \$29.7 million to \$61.1 million.

Table B15: Total (all stages) comparison of proposed financing mechanism to Alternative 2b

Revenue Source	Total	
	Proposed	Alternative 2b
Impact Tax Revenue	\$15,178,240	\$15,178,240
Special Tax/Assessment Revenue	\$138,588,271	\$69,294,136
Tax Increment Applied to Cover Gap	\$65,122,048	\$136,541,925
Total	\$218,888,559	\$221,014,300

Overall, reducing the special tax/assessment rate from 10% to 5% above the overall ad valorem real property taxes results in a doubling of the financing gap for District infrastructure (from \$65.1 million to \$136.5 million).