# ITEM 11 - Information

September 21, 2005

Briefing on the Draft Air Quality Conformity Determination for the 2005 Constrained Long Range Plan (CLRP) and FY 2006-2011 Transportation Improvement Program (TIP)

**Staff Recommendation:** Receive briefing on the draft air quality conformity determination of the 2005 CLRP and FY 2006-2011 TIP, and on the draft 2005 CLRP and FY 2006-2011 TIP documents.

**Issues:** None

**Background:** At the July 20 meeting, the Board was briefed on the status of the draft 2005 CLRP and FY 2006-2011 TIP documents and on the revisions to the Draft Round 7.0 Forecasts approved by the MDPC for use in the associated air quality conformity analysis. These draft documents were released for public comment on September 15, 2005. The public comment period for these documents ends on October 15, 2005. The TPB is scheduled to act on these documents at its meeting on October 19, 2005.

# National Capital Region Transportation Planning Board

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**MEMORANDUM**

September 12, 2005

To: Transportation Planning Board

From: Michael J. Clifford
Systems Planning Applications Director

Subject: Air Quality Conformity Assessment for the 2005 Update of the Constrained Long Range Plan (CLRP) and the FY2006-2011 Transportation Improvement Program (TIP)

## INTRODUCTION

This memo documents summary results of the air quality conformity assessment of the 2005 CLRP and the FY2006-2011 TIP. The results are based upon the analysis contained in the September 15, 2005 draft technical report, Air Quality Conformity Determination Of The 2005 Constrained Long Range Plan And The FY2006-2011 Transportation Improvement Program For The Washington Metropolitan Region, and are being forwarded to the TPB Technical Committee for review and comment. According to the TPB's schedule for action on the plan, TIP, and conformity determination, the results will be released for public comment and interagency consultation on September 15, 2005, comments will be accepted through October 15, 2005, with action by the Board scheduled for the October 19, 2005 meeting.

## BACKGROUND

On April 20, 2005 the TPB approved the scope of work and the project submissions for inclusion in the conformity analysis for the year 2005 update of the CLRP and FY2006-2011 TIP. Key technical inputs to the analysis included: Round 7 Cooperative Forecasts; the Version 2.1D #50 Travel Demand Model utilizing the new project submissions, and reflecting updated transit service and transit fares; EPA's Mobile6.2 Emissions Factor Model; and a refined Mobile Emissions Post-Processor using latest travel demand and mobile emissions planning assumptions for specific use with the Version 2.1D #50 and Mobile6 models.

The ozone precursor mobile emissions budgets used in this analysis are taken from the Metropolitan Washington Air Quality Committee's (MWAQC) Severe Area State Implementation Plan (SIP) document, *Plan to Improve Air Quality in the Washington, DC-MD-VA Region*, February 19, 2004.

Staff proceeded with the technical analyses described below to ascertain whether the draft plan and program would meet the specific conformity criteria.

## WORK ACTIVITIES

Technical work activities for the conformity assessment of the 2005 CLRP and FY2006-2011 TIP included the preparation of volatile organic compound (VOC) and nitrogen oxide (NOx) emissions inventories for specified forecast years associated with the plan and program (base year 2002 & forecast years: 2010, 2020 and 2030). Wintertime carbon monoxide (CO) analysis for conformity has also been conducted. In meeting the requirements for use of latest planning assumptions and methods, this year marked the use of the updated Round 7.0 land activity forecasts, and a modification of the transit capacity constraint input assumptions.

These inventories address a primary conformity assessment criterion to demonstrate that the plan and program adhere to the established mobile source emissions budgets. In anticipation of possible emissions increases associated with implementation of the plan and program, staff (in conjunction with the TPB Technical Committee and its Travel Management Subcommittee) conducted parallel analyses of committed and potential new transportation emissions reduction measures (TERM)s. These results are described in the July 20, 2005 draft report, *Transportation Emissions Reduction Measures (TERMs) Under Consideration for Conformity of the 2005 CLRP and FY 2006 - FY 2011 TIP*.

Today's memo presents a summary of results of the conformity analysis, as follows.

### Plan Amendments and Program Elements

There have been a number of new projects and changes advanced for the CLRP / TIP in this year's approval cycle. Attachment A presents a listing of significant new projects since the 2004 CLRP and the FY2005-2010 TIP were approved by the Board on November 17, 2004.

### Land Activity Forecasts

On July 13, 2005 COG's Metropolitan Development Policy Committee approved Round 7.0 Cooperative Forecast totals to be used for testing purposes in analysis of the CLRP and TIP. The Round 7.0 data reflect not only the forecast small area land use distributions throughout the Washington area, but also the latest planning assumptions for areas outside the Washington region. For example, the Baltimore land use input to Round 7.0 reflects the Baltimore Metropolitan Council's 'Round 6-A' adopted figures, whereas their previous input to the COG Round 6.4A forecasts was their 'Round 6' figures.

**Travel Modeling Process**

Using the Version 2.1D #50 model, COG/TPB staff prepared travel demand forecasts for each of the required forecast years. Exhibit 1 presents the geographic areas for modeling and for non-attainment reporting purposes. Exhibit 2 presents the resulting transit trips, vehicle trips, and vehicle miles traveled (VMT) results through time for each conformity analysis year.

**Emissions Factors**

As with last year's conformity analysis, staff used motor vehicle emissions factors developed from EPA's MOBILE6.2 emissions factor model. (See Appendix D of the full technical report for model inputs and other details of the emissions factor development.) These rates for each pollutant, shown using Fairfax County freeway data as an illustration in Exhibits 3 and 4 for VOC and NOx, respectively, were developed following execution of the model in one mph speed increments, by jurisdiction, for each analysis year. The charts show significantly reduced rates through time, primarily due to the impacts of having cleaner vehicles in the fleet.

**Emissions Analyses**

Mobile Emissions Inventories

Prior to calculation of mobile source emissions, the above (AAWDT) forecasts were first factored by seasonal adjustments (a 1.05 ozone season factor or a 0.97 winter season factor) to yield VMT appropriate to each season being analyzed. Staff then applied the Mobile6.2 emissions factors to the travel demand forecasts by season to prepare mobile source emissions inventories for each forecast year. These emissions results are summarized in Exhibit 5 and indicate VOC and NOx emissions for network and off-network components for each analysis year. The table shows dramatic reductions between 2002 and 2020, and further reductions thereafter with emissions reaching about 38 tons per day for both pollutants in 2030. The results reflect the impact of the cleaner fleet (continuing fleet turnover) and related programs, with slowing VMT growth rates through time. Net emissions for each forecast year are shown as the bottom line of the summary table. Mobile source emissions are well within the mobile budgets for all forecast years.

Exhibits 6 and 7 present these VOC and NOx results in a graphical format, which perhaps illustrates even better the steady and significant downward trends occurring in both VOC and NOx emissions. Historical emissions reductions from the clean air act amendments 1990 base have been well documented in the past (especially VOC emissions which dropped from about 299 tons per day (T/D) to about 122 T/D, but NOx emissions have also dropped by nearly 100 T/D from 381 to 284 T/D). From 2002 to year 2010, VOC emissions will be cut further, nearly in half, from 122 T/D to 65 T/D. NOx emissions experience even greater reductions, from 284 T/D to 138 T/D. These reductions are largely attributable to Tier II vehicle standards, cleaner

fuels, and the heavy duty engine rule, and will continue to generate additional emissions reductions through time as fleet turnover replaces older vehicles and truck engines. In recognition of the fact that estimated emissions are within the mobile source budget for each pollutant, no additional transportation emissions reduction measures are required to demonstrate conformity.

Net Emissions Analysis

The emissions inventory data contained in Exhibit 5 reflect total mobile source network and off-network emissions. However, there are also emissions benefits associated with certain other transportation programs and projects. These benefits, estimated on an off-line basis, are also creditable in conformity analyses. Attachment C represents a summary table of these transportation emissions reduction measures, or TERMs, which have been previously planned or programmed by the TPB. They are arrayed in a 'Tracking Sheet' format to document the implementation status of each. The summary result of these measures, shown as the bottom line of the 'TERM Tracking Sheet - Current Measures' table within the attachment, amounts to additional reductions in 2010 of 2.5 tons per day of VOC and 5.1 tons per day of NOx. Only those projects which have been affirmed by the implementing agency as having been completed, or are on a realistic schedule towards implementation, are being credited in this emissions analysis. (Documentation from the implementation agencies regarding the status of each project is contained in Appendix J of the full conformity report.) Combining the emissions results in Exhibit 5 with the additional reductions from TERMs would further improve the emissions budget margins for VOC and NOx.

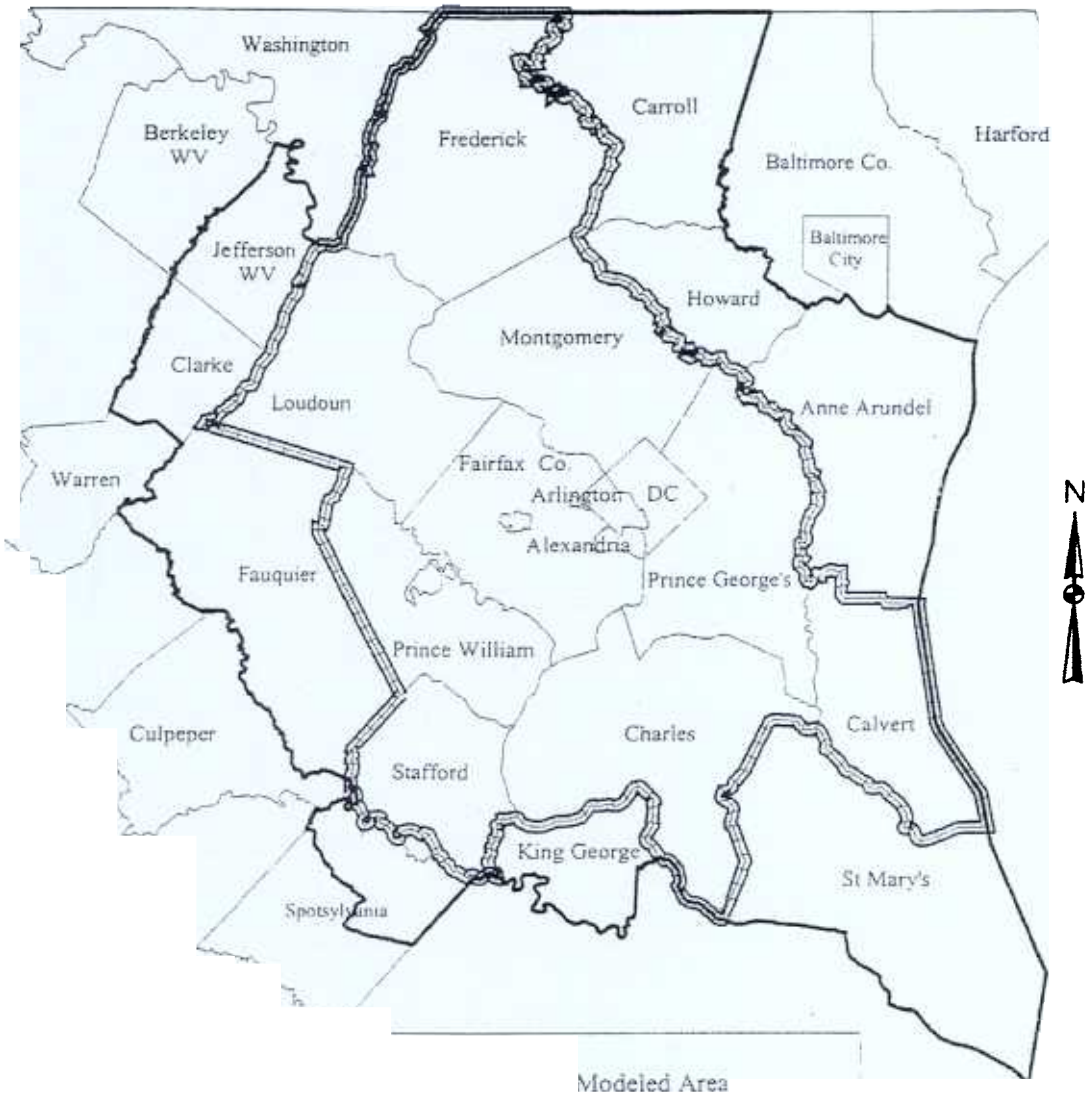
**SUMMARY**

The analytical results described in this air quality assessment provide a basis for a determination by the TPB of conformity of the 2005 CLRP and the FY2006-2011 TIP.

Following: Exhibits 1-7
Attachments A-C

EXHIBIT 1

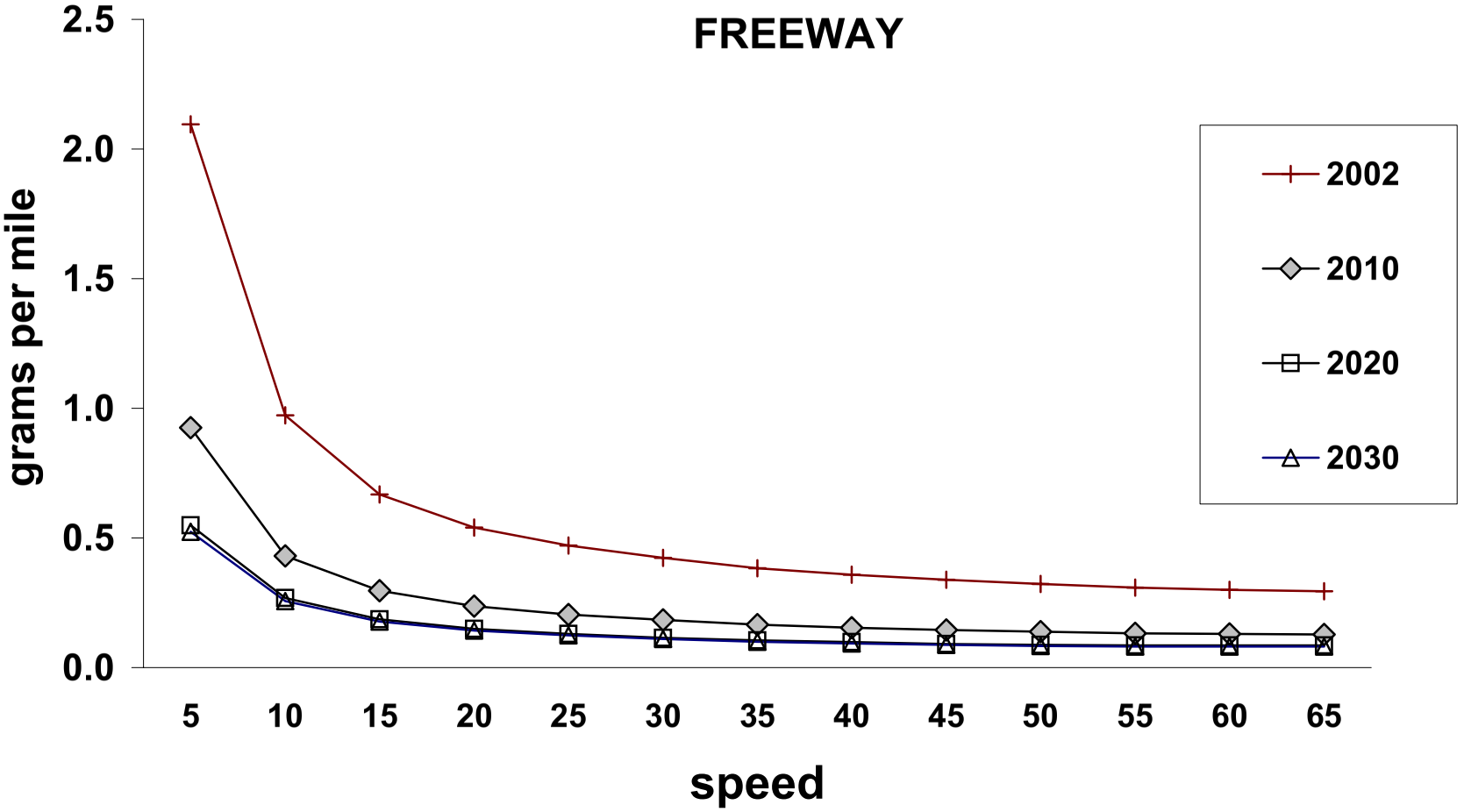
**Washington, D.C. - Maryland - Virginia**
**Modeled Area**
**and**
**Metropolitan Statistical Area**



# Exhibit 2
# Travel Demand Summary
# Modeled Area Trips and Vehicle Miles Traveled (000's)

| | 2002 | 2010 | 2020 | 2030 |
|---|---|---|---|---|
| **Transit Trips** | 895.0 | 1,024.8 | 1,241.7 | 1,346.4 |
| **Vehicle Trips** | 19,407.7 | 22,283.5 | 25,173.9 | 28,042.0 |
| **VMT** | 149,065.6 | 169,740.6 | 195,371.9 | 217,051.1 |

# Exhibit 3
# TOTAL 2002-2030 VOC COMPOSITE MOBILE6.2 RUNNING EMISSION RATES FOR FAIRFAX COUNTY FREEWAY



# Exhibit 4
# TOTAL 2002-2030 NOx COMPOSITE MOBILE6.2 RUNNING EMISSION RATES FOR FAIRFAX COUNTY
# FREEWAY

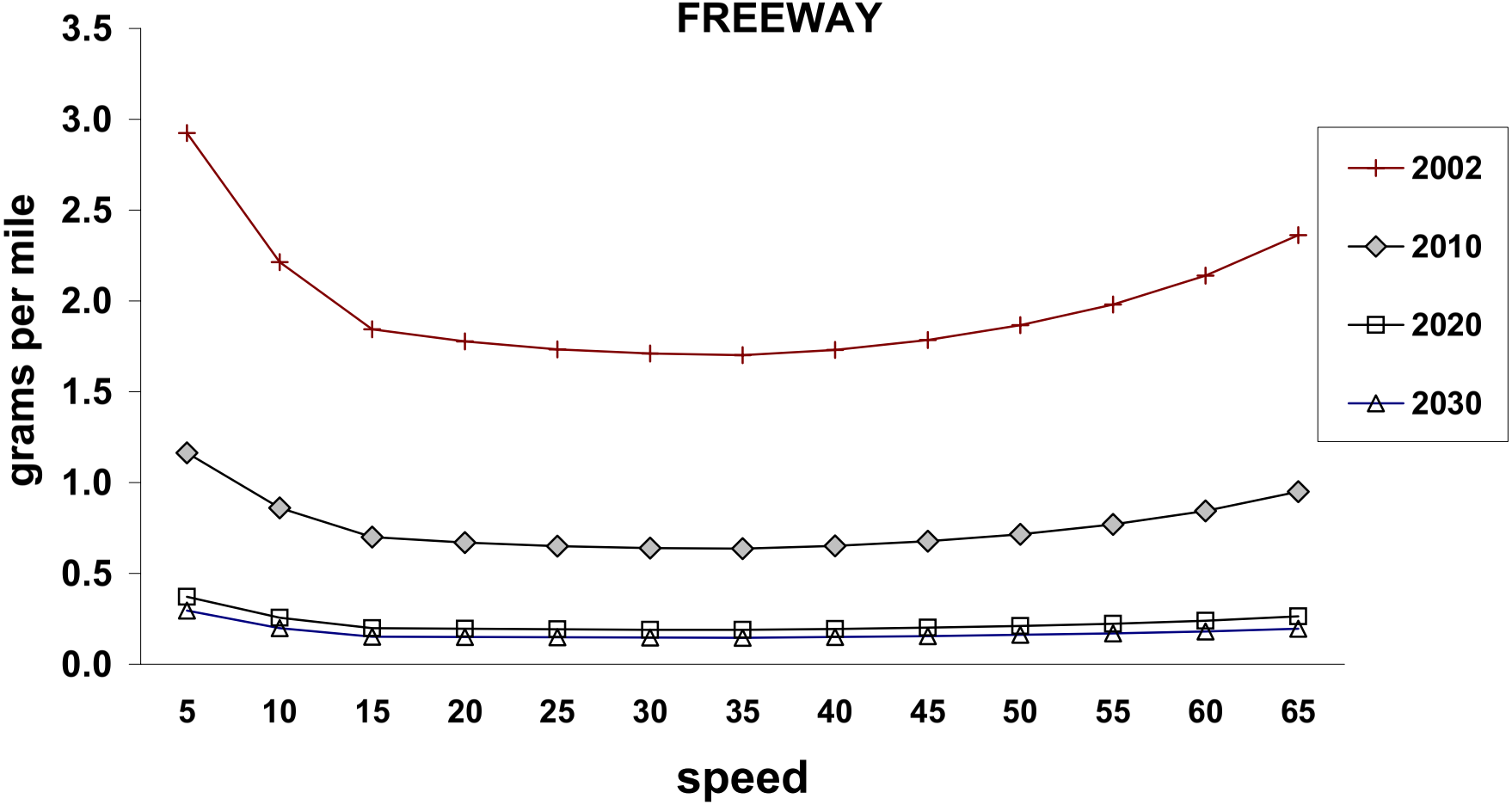


**EXHIBIT 5**

# AIR QUALITY CONFORMITY

## Summary Table - MSA (1-Hour Ozone Area)

### Mobile Emissions Inventories

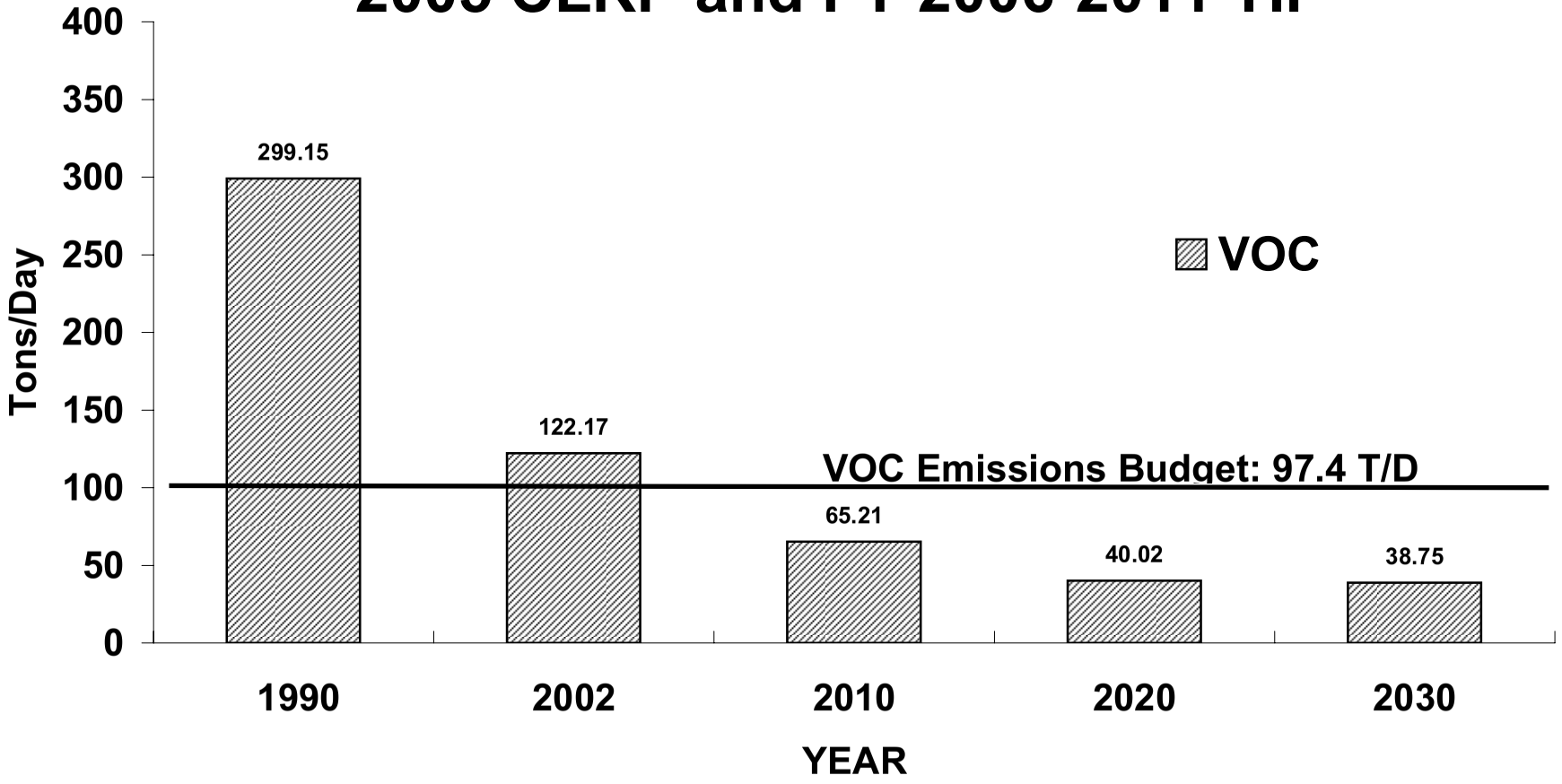
### for 2005 CLRP and FY 2006-2011 TIP

**(Tons/Day)**

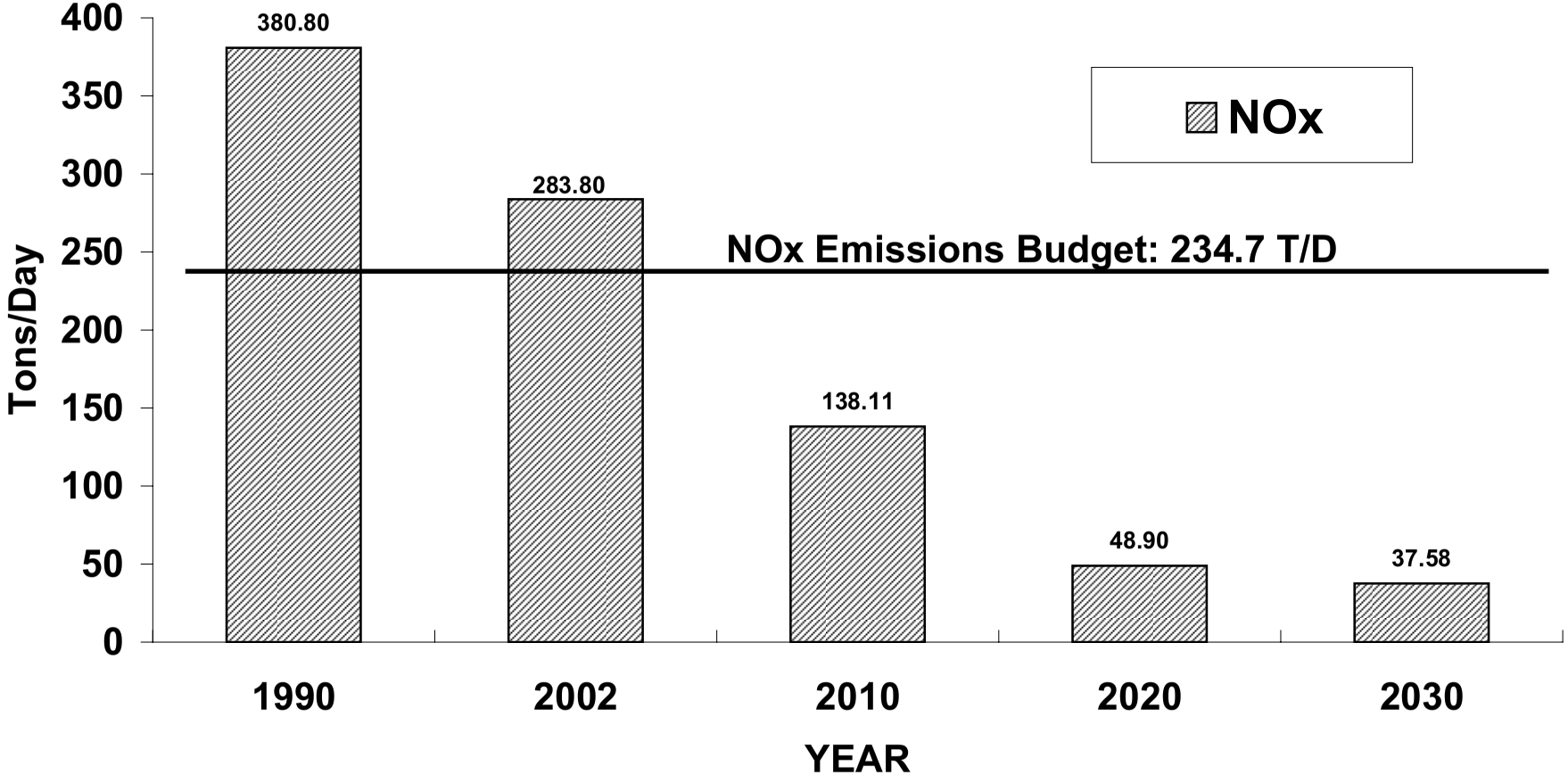
| | 2002 | | 2010 | | 2020 | | 2030 | |
|---|---|---|---|---|---|---|---|---|
| | VOC | NOx | VOC | NOx | VOC | NOx | VOC | NOx |
| **I Network** | | | | | | | | |
| Start | 25.95 | 14.17 | 11.20 | 6.93 | 7.09 | 3.18 | 6.85 | 2.54 |
| Running | 57.65 | 243.03 | 28.57 | 116.77 | 19.91 | 40.84 | 20.71 | 31.66 |
| Soak | 11.31 | --------- | 9.72 | --------- | 4.82 | --------- | 4.16 | ---------- |
| **II Off-Network** | | | | | | | | |
| Diurnal | 3.14 | ---------- | 2.07 | ---------- | 1.03 | ---------- | 0.75 | ---------- |
| Resting Loss | 12.32 | ---------- | 8.00 | ---------- | 3.21 | ---------- | 2.28 | ---------- |
| Local Roads | 9.63 | 12.24 | 4.76 | 6.42 | 3.21 | 2.82 | 3.28 | 2.47 |
| School Buses | 0.43 | 6.09 | 0.28 | 3.76 | 0.17 | 0.70 | 0.17 | 0.27 |
| Transit Buses | 0.38 | 6.57 | 0.12 | 3.86 | 0.12 | 0.92 | 0.12 | 0.25 |
| Auto Access | 1.37 | 1.70 | 0.69 | 0.86 | 0.46 | 0.44 | 0.45 | 0.39 |
| **Total** | 122.17 | 283.80 | 65.41 | 138.60 | 40.01 | 48.90 | 38.75 | 37.58 |

| | | |
|---|---|---|
| TCMs | -0.20 | -0.49 |
| Net Emissions | 65.21 | 138.11 |
| Mobile Emissions Budgets: | 97.40 | 234.70 |
| Budget Adherence Margin: | 32.19 | 96.59 |

# EXHIBIT 6
# Mobile Source VOC Emissions
# Metropolitan Statistical Area
# 2005 CLRP and FY 2006-2011 TIP



# EXHIBIT 7
# Mobile Source NOx Emissions
# Metropolitan Statistical Area
# 2005 CLRP and FY 2006-2011 TIP




NOTE: TCM emissions benefits applied in 2010

# ATTACHMENT A

# Table A
# Significant Changes
# for the
# Air Quality Conformity Analysis
# of the
# 2005 CLRP and FY2006-2011 TIP
# Projects Inside the TPB Planning Area

| ID | Agency | Improvement | Facility | From/At | To | Completion Date | Fac. Type | | # Lanes | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to |
| **MARYLAND** | | | | | | | | | | |
| 1 | MDOT | Construct | I-95/I-495/Arena Drive Interchange | MD 214 | MD 202 | 2010 | 1 | 1 | 8 | ***8+2*** ~~8~~ |
| ***2*** | ***MDOT*** | ***Widen*** | ***MD 27*** | ***MD 355*** | ***A 305*** | ***2006*** | ***2*** | ***2*** | ***4*** | ***6*** |
| **VIRGINIA** | | | | | | | | | | |
| 3a | VDOT | Widen/ Construct | ***I-495 HOT*** ~~I-495 HOV (peak)~~ | I-395 | S. of VA 193 (Georgetown Pike) | ***2010*** ~~2012~~ | 1 | 1 | 8 | ***8+4*** ~~10~~ |
| ***3b*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **Provides SB to WB, SB to EB, EB to SB, EB to NB, & NB to WB HOV to HOT or HOT to HOV movements** | **@ VA 267 (Dulles Toll Road)** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3c*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **All movements** | **@ VA 123 (Chain Bridge Road)** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3d*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **Provides SB to WB, WB to SB, EB to SB, NB to WB, NB to EB, & EB to NB HOV to HOT movements** | **@ I-66 HOV Lanes** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3e*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **HOT movements to and from South Only** | **@ US 29** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3f*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **All movements** | **@ VA 620 (Braddock Road)** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3g*** | ***VDOT*** | ***Construct*** | ***Construct ramps connecting the existing I-95 / I-395 HOV lanes on Shirley Highway to proposed HOT lanes on the Capital Beltway.*** | ***From I-95 / I-395 HOV lanes to I-495 HOT lanes*** | | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***4a*** | ***VDOT*** | ***Upgrade*** | ***VA 7900 (Franconia/Springfield Parkway)*** | ***VA 638 (Rolling Rd.)*** | ***VA 617 (Backlick Rd.)*** | ***2020*** | ***5*** | ***1*** | ***6+2*** | ***6+2*** |
| ***4b*** | ***VDOT*** | ***Construct*** | ***VA 7900 (Franconia/Springfield Parkway)*** | ***Interchange at Neuman Street*** | | ***2020*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***5a*** | ***Arlington County*** | ***Construct*** | ***Crystal City-Potomac Yards busway (2-lane) Segment 1*** | ***Vicinity of Glebe Rd. Extended*** | ***26th St.*** | ***2006*** | ***--*** | ***--*** | ***0*** | ***2*** |
| ***5b*** | ***Arlington County*** | ***Construct*** | ***Crystal City-Potomac Yards busway (2-lane) Segment 2*** | ***26th St.*** | ***Crystal City Metro Station*** | ***2008*** | ***--*** | ***--*** | ***0*** | ***2*** |
| ***5c*** | ***Arlington County*** | ***Upgrade*** | ***Crystal City-Potomac Yards busway to BRT*** | ***Vicinity of Glebe Rd. Extended*** | ***Crystal City Metro Station*** | ***2012*** | ***--*** | ***--*** | ***0*** | ***2*** |

# Table B
# Significant Changes
# for the
# Air Quality Conformity Analysis
# of the
# 2005 CLRP and FY2006-2011 TIP
# Projects Outside the TPB Planning Area

| ID | Agency | Improvement | Facility | From/At | To | Completion Date | Fac. Type | | # Lanes | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to |
| **MARYLAND** | | | | | | | | | | |
| *1* | *MDOT* | *Construct* | *MD 2/4 at Lusby Southern Connector Rd.* | *MD 765* | *MD 2/4 at Lusby* | *2010* | *0* | *2* | *0* | *3* |

# ATTACHMENT B

# HOUSEHOLD DATA

| MSA: | 2002 | 2010 | 2020 | 2030 | 2030/2010 |
|---|---|---|---|---|---|
| | | | | | |
| D.C. | 249809 | 265303 | 292904 | 317696 | 1.20 |
| MONTGOMERY | 330970 | 367410 | 405294 | 438630 | 1.19 |
| PR.GEORGES | 299108 | 324343 | 349480 | 380811 | 1.17 |
| ARLINGTON | 89000 | 99577 | 111455 | 119855 | 1.20 |
| ALEXANDRIA | 63662 | 70964 | 76661 | 86450 | 1.22 |
| FAIRFAX | 374148 | 426019 | 479308 | 500221 | 1.17 |
| LOUDOUN | 70953 | 112664 | 149709 | 170149 | 1.51 |
| PR. WILLIAM | 119778 | 159345 | 188652 | 212864 | 1.34 |
| FREDERICK | 73833 | 87708 | 104139 | 123125 | 1.40 |
| CHARLES | 44286 | 52228 | 63654 | 76880 | 1.47 |
| STAFFORD | 32626 | 40899 | 51927 | 68404 | 1.67 |
| CALVERT | 26570 | 31045 | 34331 | 36212 | 1.17 |
| SUBTOTAL | 1,774,743 | 2,037,505 | 2,307,514 | 2,531,297 | 1.24 |
| ADDITIONAL COUNTIES: | | | | | |
| HOWARD | 94549 | 108700 | 124700 | 128130 | 1.18 |
| ANNE ARUNDEL | 183445 | 201097 | 217599 | 226001 | 1.12 |
| CARROLL | 55308 | 63550 | 69516 | 71822 | 1.13 |
| FREDERICKSBURG (VA) | 8561 | 10448 | 12391 | 13944 | 1.33 |
| JEFFERSON | 17016 | 20427 | 25957 | 33075 | 1.62 |
| N. SPOTSYLVANIA | 26787 | 35135 | 44012 | 52981 | 1.51 |
| FAUQUIER | 21448 | 26872 | 35729 | 47506 | 1.77 |
| CLARKE | 5182 | 6142 | 6860 | 7770 | 1.27 |
| K. GEORGE | 6533 | 8319 | 9850 | 11446 | 1.38 |
| ST. MARY'S | 31801 | 36441 | 42604 | 48399 | 1.33 |
| SUBTOTAL | 450,630 | 517,131 | 589,218 | 641,074 | 1.24 |
| TOTAL | 2,225,373 | 2,554,636 | 2,896,732 | 3,172,371 | 1.24 |

SOURCE:
MWCOG Revised Round 7.0 Cooperative Forecasts
BMC Round 6-A Cooperative Forecasts

# EMPLOYMENT DATA

| MSA: | 2002 | 2010 | 2020 | 2030 | 2030/2010 |
|---|---|---|---|---|---|
| | | | | | |
| D.C. | 744155 | 783606 | 830000 | 859991 | 1.10 |
| MONTGOMERY | 481693 | 542120 | 612065 | 666993 | 1.23 |
| PR.GEORGES | 349356 | 392866 | 463816 | 547696 | 1.39 |
| ARLINGTON | 187633 | 217836 | 254418 | 275798 | 1.27 |
| ALEXANDRIA | 95800 | 113251 | 132536 | 147957 | 1.31 |
| FAIRFAX | 624843 | 727012 | 827599 | 904191 | 1.24 |
| LOUDOUN | 103376 | 153736 | 212920 | 271159 | 1.76 |
| PR. WILLIAM | 127076 | 157719 | 190161 | 217764 | 1.38 |
| FREDERICK | 106647 | 142412 | 158278 | 167257 | 1.17 |
| CHARLES | 47700 | 62888 | 66797 | 69100 | 1.10 |
| STAFFORD | 33603 | 46140 | 59216 | 73394 | 1.59 |
| CALVERT | 25456 | 32897 | 34498 | 35599 | 1.08 |
| SUBTOTAL | 2,927,338 | 3,372,483 | 3,842,304 | 4,236,899 | 1.26 |
| ADDITIONAL COUNTIES: | | | | | |
| HOWARD | 141854 | 168878 | 194203 | 219539 | 1.30 |
| ANNE ARUNDEL | 260251 | 286363 | 311932 | 334723 | 1.17 |
| CARROLL | 56471 | 61603 | 64649 | 65465 | 1.06 |
| FREDERICKSBURG (VA) | 25892 | 40258 | 51666 | 62676 | 1.56 |
| JEFFERSON | 17008 | 21058 | 26113 | 30674 | 1.46 |
| N. SPOTSYLVANIA | 28045 | 36321 | 46660 | 56541 | 1.56 |
| FAUQUIER | 22320 | 27325 | 35767 | 43367 | 1.59 |
| CLARKE | 6079 | 6793 | 7685 | 8552 | 1.26 |
| K. GEORGE | 12084 | 16022 | 20557 | 34303 | 2.14 |
| ST. MARY'S | 48915 | 58165 | 61164 | 63139 | 1.09 |
| SUBTOTAL | 618,919 | 722,786 | 820,396 | 918,979 | 1.27 |
| TOTAL | 3,546,257 | 4,095,269 | 4,662,700 | 5,155,878 | 1.26 |

SOURCE:
MWCOG Revised Round 7.0 Cooperative Forecasts
BMC Round 6-A Cooperative Forecasts

NOTE: Includes Census Adjustment

# ATTACHMENT C

# TERM TRACKING SHEET - CURRENT MEASURES

## IMPLEMENTATAION: YEAR 2000 AND LATER

## Credits are taken in Air Quality Conformity Analysis FY 2005-2010

* Project Category: TR - Traffic Stream, C - Commute, H - Heavy Duty Vehicles (Engine Technology), SP- Specific Vehicle Type, TCM - Transportation Control Measures

| NOs | CREDIT TAKEN | TIP CREDITED | AGENCY | PROJECT | IMPLEMENTATION STATUS | | | | ORIGINAL COMPLETION DATE | ACTUAL COMPLETION DATE | TONS/DAY REDUCTION CREDITED | | | | | | Project Category * |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FULL | SCALED-BACK | UNDER-WAY | REM | | | 2010 | | 2020 | | 2030 | | |
| | | | | | | | | | | | VOC | NOX | VOC | NOX | VOC | NOX | |
| 9 | X | 1994-99 | MDOT | Park & Ride Lot - MD 210/ MD 373 | X | | | | 2000 | 2003 | 0.0006 | 0.0014 | 0.0004 | 0.0006 | 0.0004 | 0.0006 | C |
| 19 | X | 1994-99 | PRTC | VRE Woodbridge Parking Expansion (add 500 spaces) | X | | | | | 2002-2003 | n/a | n/a | n/a | n/a | n/a | n/a | - |
| 20 | X | 1994-99 | ALEX | King St. Metrorail access improvements | | | X | | | 2002, '04, '05 | 0.0011 | 0.0014 | 0.0007 | 0.0006 | 0.0008 | 0.0009 | C |
| 38 | X | 1995-00 | MDOT | Signal Systems - MD 85 Executive Way to MD 355 | X | | | | 1996 | Pre 2000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | TR |
| 39 | X | 1995-00 | MDOT | Signal Systems - MD 355 ,I-70 ramps to Grove Rd. | X | | | | 1996 | n/a | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | TR |
| 44 | X | 1995-00 | MDOT | Signal Systems - MD 410, 62nd Ave. to Riverdale Rd. | X | | | | 1996 | 2002 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | TR |
| 48 | X | 1995-00 | MDOT | MARC Replacement Coaches | X | | | | 1999 | 2004 | 0.0006 | 0.0014 | 0.0004 | 0.0006 | 0.0012 | 0.0018 | C (TCM) |
| 49 | X | 1995-00 | MDOT | MARC Expansion Coaches | X | | | | 1999 | 2004 | 0.0052 | 0.0133 | 0.0033 | 0.0055 | 0.0054 | 0.0145 | C (TCM) |
| 51 | X | 1995-00 | VDOT | Alexandria Telecommuting Pilot Program | X | | | | | 2000 & 2001 | 0.0000 | 0.0000 | | | | | C |
| 52 | X | 1995-00 | VDOT | Fairfax County Bus Shelter (Fairfax Co. TDM program) | | | X | | 2000 | 2001 | 0.0000 | 0.0000 | | | | | C |
| 54 | X | 1995-00 | VDOT | City of Fairfax Bus Shelters | | | X | | 1999 | 2004 | 0.0000 | 0.0005 | 0.0000 | 0.0002 | 0.0000 | 0.0000 | C (TCM) |
| 56 | X | 1995-00 | VDOT | Cherry Hill VRE Access | | | X | | | 2007 | 0.0040 | 0.0114 | 0.0026 | 0.0047 | 0.0023 | 0.0047 | C (TCM) |
| 58 | X | 1995-00 | WMATA | Bus Replacement (172 buses) | X | | | | 1998 | 1998 | 0.0690 | 0.2520 | | | | | SP (TCM) |
| 59 | X | 1995-00 | MCG | Shady Grove West Park and Ride | | | X | | 2010 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0030 | C |
| 60 | X | 1995-00 | MCG | White Oak Park and Ride | | | X | | 2010 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0059 | C |
| 61 | X | 1995-00 | MCG | Bicycle Facilities | | | X | | FY99 | | 0.0017 | 0.0009 | 0.0011 | 0.0004 | 0.0012 | 0.0006 | C |
| 62 | X | 1995-00 | MCG | Pedestrian Facilities to Metrorail | | | X | | | | 0.0029 | 0.0038 | 0.0018 | 0.0016 | 0.0015 | 0.0021 | C |
| 63 | X | 1995-00 | MDOT | MARC Replacement Coaches | X | | | | 1999 | 2004 | 0.0023 | 0.0057 | 0.0015 | 0.0024 | 0.0031 | 0.0059 | C |
| 64 | X | 1995-00 | MDOT | MARC Expansion Coaches | X | | | | 1999 | 2004 | 0.0183 | 0.0493 | 0.0118 | 0.0205 | 0.0283 | 0.0482 | C (TCM) |
| 66 | X | 1995-00 | VDOT | Commuter Lots - District Wide | | | X | | varies | 1995, 2000 | 0.0063 | 0.0156 | 0.0040 | 0.0065 | 0.0062 | 0.0157 | C |
| 67 | X | 1995-00 | VDOT | I-66 and Stringfellow Rd. Park and Ride | X | | | | 2000 | 2000 end | 0.0057 | 0.0095 | 0.0037 | 0.0039 | 0.0039 | 0.0059 | C |
| 68 | X | 1995-00 | VDOT | Lake Ridge Park and Ride (now called Tacketts Mill lot) | X | | | | | 1999/2000 | 0.0000 | 0.0047 | 0.0000 | 0.0020 | 0.0000 | 0.0030 | C |
| 69 | X | 1995-00 | VDOT | Bicycle Trails and Facilities | | | X | | varies | varies | 0.0011 | 0.0081 | 0.0007 | 0.0034 | 0.0074 | 0.0053 | C |
| 70 | X | 1995-00 | VDOT | Improved Accesss to Metrorail Stations | | | X | | varies | 2000-2010 | 0.0003 | 0.0005 | 0.0002 | 0.0002 | 0.0004 | 0.0006 | C |
| 71 | X | 1995-00 | VDOT | I-66 HOV access at Monument Dr. | X | | | | | 1997 | 0.0057 | 0.0095 | 0.0037 | 0.0039 | 0.0004 | 0.0059 | C |
| 72 | X | 1995-00 | DC | Bicycle Facilities | | X | | | | | 0.0137 | 0.0095 | 0.0088 | 0.0039 | 0.0093 | 0.0065 | C |
| 73 | X | 1995-00 | REGION | COG Regional Ridesharing Support | X | | | | | on-going | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | C |

# TERM TRACKING SHEET - CURRENT MEASURES

## IMPLEMENTATAION: YEAR 2000 AND LATER

## Credits are taken in Air Quality Conformity Analysis FY 2005-2010

* Project Category: TR - Traffic Stream, C - Commute, H - Heavy Duty Vehicles (Engine Technology), SP- Specific Vehicle Type, TCM - Transportation Control Measures

| NOs | CREDIT TAKEN | TIP CREDITED | AGENCY | PROJECT | IMPLEMENTATION STATUS | | | | ORIGINAL COMPLETION DATE | ACTUAL COMPLETION DATE | TONS/DAY REDUCTION CREDITED | | | | | | Project Category * |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FULL | SCALED-BACK | UNDER-WAY | REM | | | 2010 | | 2020 | | 2030 | | |
| | | | | | | | | | | | VOC | NOX | VOC | NOX | VOC | NOX | |
| 74 | X | 1995-00 | REGION | M-47 Integrated Ridesharing | X | | | | | on-going | 0.0264 | 0.0493 | 0.0165 | 0.0206 | 0.0139 | 0.0172 | C |
| 75 | X | 1995-00 | REGION | M-92 Telecommuting Support | X | | | | | on-going | 0.2069 | 0.3951 | 0.1763 | 0.2256 | 0.1889 | 0.2374 | C |
| 77 | | 1996-01 | VDOT | Duke Street Pedestrian Bridge | | | | | 2005 | n/a | n/a | n/a | n/a | n/a | n/a | n/a | - |
| 79 | X | 1996-01 | VDOT | Fairfax County Bus Shelters (30 shelters with project #85) | | | X | | 1999 | Summer 2001 | 0.0011 | 0.0014 | 0.0007 | 0.0006 | 0.0008 | 0.0009 | C |
| 81 | X | 1996-01 | VDOT | Arlington County Metrocheck Program | X | | | | 1997 | 1997 Onwards | 0.0011 | 0.0014 | 0.0007 | 0.0006 | 0.0004 | 0.0009 | C |
| 82 | X | 1996-01 | VDOT | Old Dominion Drive Bike Trail | | | X | | 2000 | 2004 | 0.0006 | 0.0005 | 0.0004 | 0.0002 | 0.0004 | 0.0003 | C |
| 83 | X | 1996-01 | WMATA | Bus Replacement (see line 58, above) | X | | | | | 1998 | Credit taken in line 58, above | | | | | | SP |
| 85 | X | 1996-01 | VDOT | Fairfax County Bus Shelters (30 shelters with project #79) | | | X | | 1999 | 2001 | 0.0006 | 0.0005 | 0.0004 | 0.0002 | 0.0004 | 0.0009 | C |
| 90 | X | 1996-01 | REGION | M-47c Employer Outreach / Guaranteed Ride Home | X | | | | | on-going | 0.3460 | 0.5748 | 0.2209 | 0.2395 | 0.1777 | 0.1989 | C |
| 91 | X | 1996-01 | REGION | M-70a Bicycle Parking | | | X | | 1999 | | 0.0040 | 0.0033 | 0.0026 | 0.0014 | 0.0039 | 0.0030 | C |
| 92 | X | | | M-92 Telecommuting Support [1] | Combined with item #75 | | | | | | | | | | | | C |
| 95 | X | 1997-02 | MCG | Germantown Transit Center | | | X | | 2004 | | 0.0029 | 0.0090 | 0.0018 | 0.0038 | 0.0019 | 0.0053 | C (TCM) |
| 102 | X | 1997-02 | PG | Prince George's County Bus Replacement | X | | | | 1998 | 1998 | 0.0030 | 0.0090 | | | | | SP (TCM) |
| 106 | X | 1997-02 | VDOT | PRTC Employer Commuting Outreach Program | X | | | | | 1977 on-going | 0.0011 | 0.0002 | 0.0007 | 0.0001 | 0.0008 | 0.0000 | C |
| 107 | X | 1997-02 | VDOT | PRTC Multimodal Strategic Marketing Implementation Plan | X | | | | | 1977 on-going | 0.0000 | 0.0002 | 0.0000 | 0.0001 | 0.0000 | 0.0003 | C |
| 108 | X | 1997-02 | MDOT | M-103 Taxicab Replacement in Maryland [2] | | X | | | 1999 | On-going | 0.0797 | 0.2675 | 0.1340 | 0.1827 | 0.3120 | 0.4810 | SP |
| 109 | X | 1997-02 | REGION | M-70b Employer Outreach for Bicycles | X | | | | 1998 | on going | 0.0007 | 0.0007 | 0.0005 | 0.0003 | 0.0003 | 0.0002 | C |
| 110 | | 1997-02 | VDOT | M-77b Vanpool Incentive Programs in Virginia | | | X | | 1999 | delayed | n/a | n/a | n/a | n/a | n/a | n/a | C |
| 111 | X | 1998-03 | WMATA | Bus Replacement (108 buses) | X | | | | 1999 | 1999 | 0.0450 | 0.1617 | | | | | SP |
| 112 | X | 1998-03 | MCG | Montgomery County Bus Replacement | X | | | | | | 0.0080 | 0.0270 | | | | | SP |
| 113 | X | 1998-03 | PG | Prince George's County Bus Replacement | X | | | | 1998 | 1998 | 0.0010 | 0.0020 | | | | | SP |
| 114 | X | 1998-03 | FDC | Frederick County Bus Replacement | X | | | | | | 0.0010 | 0.0000 | | | | | SP |
| 117 | X | 1998-03 | VDOT | Arlington County Four Mile Run Bike Trail | | | X | | 1999 | delayed | 0.0006 | 0.0005 | 0.0004 | 0.0002 | 0.0004 | 0.0003 | C |
| 118 | X | 1998-03 | VDOT | Northern Virginia Turn Bays | X | | | | 2000 | 1998 | 0.0006 | 0.0008 | 0.0004 | 0.0003 | 0.0008 | 0.0003 | TR |
| 119 | X | 1998-03 | VDOT | Fairfax City Bus Replacement | | | X | | 2001 | 2003 | n/a | n/a | | | | | SP |
| 121 | X | 1998-03 | WMATA | WMATA Bus Replacement (252 buses) | X | | | | 2001 | 2001 | 0.1060 | 0.3860 | | | | | SP |
| 122 | X | 97 & 98 TIP | REGION | M-101a Mass Marketing Campagin (Consumer) | | | X | | | Underway | 0.1479 | 0.2237 | 0.0952 | 0.0973 | 0.0752 | 0.0807 | C |
| 123 | X | 1999-04 | MDOT | Various Park and Ride Lots(I-270/MD124, 450 & I-170/MD-75, 54 spaces) | X | | | | 2001/1999 | 2001 | 0.0046 | 0.0171 | 0.0029 | 0.0071 | 0.0039 | 0.0136 | C |

# TERM TRACKING SHEET - CURRENT MEASURES

## IMPLEMENTATAION: YEAR 2000 AND LATER

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* Project Category: TR - Traffic Stream, C - Commute, H - Heavy Duty Vehicles (Engine Technology), SP- Specific Vehicle Type, TCM - Transportation Control Measures

| NOs | CREDIT TAKEN | TIP CREDITED | AGENCY | PROJECT | IMPLEMENTATION STATUS | | | | ORIGINAL COMPLETION DATE | ACTUAL COMPLETION DATE | TONS/DAY REDUCTION CREDITED | | | | | | Project Category * |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FULL | SCALED-BACK | UNDER-WAY | REM | | | 2010 | | 2020 | | 2030 | | |
| | | | | | | | | | | | VOC | NOX | VOC | NOX | VOC | NOX | |
| 124 | X | 1999-04 | MDOT | Signal Systems (197/MD-198, MD-382 TO US-301,US301) | X | | | | 2000 | 2002 | 0.0070 | -0.0017 | 0.0047 | -0.0008 | 0.0079 | -0.0014 | TR |
| 125 | X | 1999-04 | VDOT | Transit Center at 7 Corners | X | | | | 2002 | | 0.0006 | 0.0009 | 0.0004 | 0.0004 | 0.0004 | 0.0006 | C |
| 126 | X | 1999-04 | VDOT | Falls Church Clean Diesel Bus Service | X | | | | 2000 | 2003 | 0.0040 | 0.0050 | | | | | SP |
| 127 | X | 1999-04 | VDOT | VA 234 Bike Trail | | | X | | 2001 | 2007 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | C |
| 128 | X | 1999-04 | VDOT | PRTC Ridesharing | X | | | | on-going | 2000 ongoing | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | C |
| 130 | X | 1996-01 | VDOT | M-14: I-66 Feeder Bus Fare Buy Down | X | | | | | 1998 onward | 0.0143 | 0.0261 | 0.0092 | 0.0109 | 0.0081 | 0.0124 | C |
| 131 | X | 2000-05 | MDOT | Various park and Ride Lots | x | | | | 2002 | 2003 | 0.0040 | 0.0154 | 0.0025 | 0.0064 | 0.0038 | 0.0119 | C |
| 132 | X | 2000-05 | MDOT | Signal Systems | X | | | | Varies | on-going | 0.0017 | 0.0000 | 0.1244 | 0.0000 | 0.0007 | 0.0000 | TR |
| 133 | X | 2000-05 | VDOT | 450 Spaces at Gambrill/Hooes Rds. Park and Ride | | | X | | 2002 | 2004 | 0.0040 | 0.0085 | 0.0026 | 0.0036 | 0.0021 | 0.0041 | C |
| 134 | X | 2000-05 | VDOT | 300 Spaces at Backlick Rd | | | X | | 2003 | 2006 | 0.0029 | 0.0062 | 0.0018 | 0.0026 | 0.0015 | 0.0030 | C |
| 135 | X | 2000-05 | VDOT | Accotink-Gateway Connector Trail | | | X | | 2002 | 2005 | 0.0040 | 0.0047 | 0.0026 | 0.0020 | 0.0018 | 0.0020 | C |
| 136 | X | 2000-05 | VDOT | Columbia Pike Trail | | | X | | 2000 | 2001, 2005 | 0.0034 | 0.0038 | 0.0022 | 0.0016 | 0.0014 | 0.0015 | C |
| 137 | X | 2000-05 | VDOT | Lee Highway trail | | | X | | 2000 | 2005 | 0.0017 | 0.0019 | 0.0011 | 0.0008 | 0.0006 | 0.0008 | C |
| 138 | X | 2000-05 | VDOT | Arlington Bus Shelter Improvements | | | X | | 2005 | 2005 | 0.0006 | 0.0005 | 0.0004 | 0.0002 | 0.0002 | 0.0002 | C |
| 139 | X | 2000-05 | VDOT | Pentagon Metrostation Improvements | X | | | | | 2003 | 0.0046 | 0.0081 | 0.0029 | 0.0034 | 0.0022 | 0.0033 | C |
| 140 | X | 2000-05 | MDOT | East/West Intersection Improvements | | | X | | 2005 | 2005 | 0.0235 | 0.0119 | 0.0151 | 0.0049 | 0.0859 | 0.0337 | C |
| 141 | X | 2001-06 | Feds | Federal Transit/Ridesharing subsidy | X | | | | on-going | | 0.0584 | 0.0905 | 0.0375 | 0.0377 | 0.0286 | 0.0313 | C |
| 142 | X | 2002-07 | WMATA | 100 CNG buses | X | | | | 2002 | | 0.0000 | 0.1358 | | | | | SP (TCM) |
| 143 | X | 2002-07 | WMATA | ULSD with CRT filters | | | X | | on-going | | 0.2100 | 0.0000 | 0.4300 | 0.0000 | 0.4300 | 0.0000 | H (TCM) |
| 144 | X | 2003-08 | DC | Replace ~~23~~ 12 Taxicabs with CNG cabs | | | X | | 2005 | 2006 | 0.0089 | 0.0157 | | | | | H |
| 145 | X | 2003-08 | DC | D.C.Incident Response & TrafficManagement System | X | | | | 2005 | 2004 | 0.0161 | 0.0414 | 0.0108 | 0.0206 | 0.0100 | 0.0168 | TR |
| 146 | X | 2003-08 | DC | Bicycle Lane in D. C. (35 Mile) | | | X | | 2005 | 2006 | 0.0095 | 0.0085 | 0.0061 | 0.0035 | 0.0046 | 0.0029 | C (TCM) |
| 147 | X | 2003-08 | DC | Bicycle Racks in D. C. (500) | X | | | | 2005 | 2004 | 0.0013 | 0.0009 | 0.0008 | 0.0004 | 0.0006 | 0.0003 | C (TCM) |
| 148 | X | 2003-08 | DC | External Bicycle Racks on WMATA Buses in D. C. (600) | X | | | | 2005 | 2003 | 0.0020 | 0.0031 | 0.0013 | 0.0013 | 0.0010 | 0.0011 | C (TCM) |
| 149 | | 2003-08 | DC | CNG Rental Cars (18) | | | | X | 2005 | Removed | 0.0000 | 0.0002 | | | | | SP |
| 150 | X | 2003-08 | DC | Sidewalks in D.C. ($ 5 million) | X | | | | 2005 | 2004 | 0.0358 | 0.0555 | 0.0230 | 0.0231 | 0.0182 | 0.0192 | C |
| 151 | X | 2003-08 | DC | CNG Refuse Haulers (2) | X | | | | 2005 | 2004 | 0.0001 | 0.0020 | | | | | H (TCM) |
| 152 | X | 2003-08 | DC | Circulator /Feeder Bus Routes | X | | | | 2005 | 2003 | 0.0131 | 0.0200 | 0.0084 | 0.0083 | 0.0066 | 0.0069 | C |

# TERM TRACKING SHEET - CURRENT MEASURES

## IMPLEMENTATAION: YEAR 2000 AND LATER

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FULL | SCALED-BACK | UNDER-WAY | REM | | | 2010 | | 2020 | | 2030 | | |
| | | | | | | | | | | | VOC | NOX | VOC | NOX | VOC | NOX | |
| 153 | X | 2003-08 | MDOT | Commuter Tax Credit | | | X | | 2005 | n/a | 0.0782 | 0.1223 | 0.0502 | 0.0509 | 0.0398 | 0.0422 | C |
| 155 | | 2003-08 | MDOT | Employer Vanpool Program (WWB) | | | | X | 2005 | Removed | 0.0018 | 0.0041 | | | | | C |
| 156 | X | 2003-08 | MDOT | Green Line Link | | | X | | 2005 | n/a | 0.0026 | 0.0047 | 0.0016 | 0.0019 | 0.0013 | 0.0016 | C |
| 157 | X | 2003-08 | MDOT | Park & Ride Lots - Southern Maryland | | | X | | 2005 | 2003/2005 | 0.0050 | 0.0109 | 0.0032 | 0.0045 | 0.0026 | 0.0038 | C |
| 158 | X | 2003-08 | MDOT | Prince George's County- Bus Exp | | | X | | 2005 | n/a | 0.0359 | 0.0657 | 0.0230 | 0.0273 | 0.0186 | 0.0228 | C |
| 159 | X | 2003-08 | MDOT | MTA - Bus Service Expansion | | | X | | 2005 | n/a | 0.0081 | 0.0157 | 0.0052 | 0.0065 | 0.0042 | 0.0054 | C |
| 160 | X | 2003-08 | MDOT | Ride- On - Super Discount | | | X | | 2005 | n/a | 0.0009 | 0.0014 | 0.0006 | 0.0006 | 0.0005 | 0.0005 | C |
| 161 | X | 2003-08 | Regional | Regional Traveler Information Systems | | | X | | 2005 | | 0.1012 | 0.5401 | 0.0682 | 0.2686 | 0.0686 | 0.2195 | TR |
| 162 | X | 2003-08 | MDOT | Universal Transportation Access (MD + WMATA) | | | X | | 2005 | n/a | 0.0161 | 0.0249 | 0.0103 | 0.0104 | 0.0082 | 0.0086 | C |
| 163 | X | 2003-08 | MCG | Construction of 1300 additional Parking Spaces at Grosvenor Metro Garage | X | | | | 2004 | | 0.0046 | 0.0104 | 0.0029 | 0.0044 | 0.0025 | 0.0036 | C (TCM) |
| 164 | X | 2003-08 | MCG | Bethesda Shuttle Bus Services | X | | | | 2004 | | 0.0031 | 0.0048 | 0.0020 | 0.0020 | 0.0016 | 0.0016 | C |
| 165 | X | 2003-08 | MCG | External Bicycle Racks on Ride-On Buses in Montgomery County | X | | | | 2004 | | 0.0006 | 0.0010 | 0.0004 | 0.0004 | 0.0003 | 0.0003 | C |
| 166 | X | 2003-08 | MCG | New CNG Powered Light Duty Vehicle fleet in the County | X | | | | 2004 | | 0.0000 | 0.0001 | | | | | SP |
| 167 | X | 2003-08 | MCG | Free Bus Service on Selected Routes on I-270 | X | | | | 2004 | | 0.0011 | 0.0017 | 0.0007 | 0.0007 | 0.0005 | 0.0006 | C |
| 168 | X | 2003-08 | MCG | Annual Sidewalk Program | X | | | | 2004 | | 0.0171 | 0.0264 | 0.0110 | 0.0110 | 0.0087 | 0.0091 | C |
| 169 | X | 2003-08 | MDOT | Bethesda Breeze/International Express Metrobus | | | X | | 2005 | n/a | 0.0037 | 0.0053 | 0.0024 | 0.0022 | 0.0019 | 0.0018 | C |
| 170 | X | 2003-08 | MDOT | Bethesda-8, Silver Spring Downtown Dasher and Prince Georges Co. Shuttles at 3 PNR lot | | | X | | 2005 | n/a | 0.0088 | 0.0104 | 0.0057 | 0.0043 | 0.0043 | 0.0036 | C |
| 171 | | 2003-08 | MDOT | Proposed Transportation Management District in Montgomery County (Rockville and Gaithersburg) | | | | X | 2005 | Removed | 0.0057 | 0.0078 | 0.0037 | 0.0033 | 0.0029 | 0.0027 | C |
| 172 | X | 2003-08 | MDOT | Sidewalks (Bikes/Pedestrian) at / near Rail Stations | X | | | | 2005 | 2002 | 0.0093 | 0.0147 | 0.0060 | 0.0061 | 0.0047 | 0.0051 | C |
| 173 | X | 2003-08 | MDOT | Neighborhood Sidewalks Improvements (Bike/Pedestrian) | X | | | | 2005 | 2004 | 0.0032 | 0.0017 | 0.0021 | 0.0007 | 0.0015 | 0.0005 | C |
| 174 | X | 2003-08 | MDOT | Neighborhood Conservation Program - Neighborhood Sidewalks Improvements (Bikes/Pedestrian) | | X | | | 2005 | n/a | 0.0028 | 0.0014 | 0.0018 | 0.0006 | 0.0013 | 0.0005 | C |
| 175 | X | 2003-08 | MDOT | Maryland bus Transit Service Expansion | X | | | | 2005 | 2004 | 0.0141 | 0.0323 | 0.0091 | 0.0134 | 0.0076 | 0.0112 | C |
| 176 | X | 2003-08 | VDOT | Universal Transportation Access Program | | | X | | 2005 | 2005 | 0.0012 | 0.0019 | 0.0008 | 0.0008 | 0.0006 | 0.0006 | C |
| 177 | X | 2003-08 | VDOT | Interactive Rideshare & Kiosk Initiative | | | X | | 2005 | | 0.0004 | 0.0007 | 0.0002 | 0.0003 | 0.0002 | 0.0002 | C |
| 178 | X | 2003-08 | VDOT | Mobile Commuter Stores | | | X | | 2005 | | 0.0021 | 0.0039 | 0.0014 | 0.0016 | 0.0011 | 0.0014 | C |
| 179 | X | 2003-08 | VDOT | Telework Incentive Program (Telework VA)[1] | X | | | | 2005 | 2001 | 0.0007 | 0.0012 | 0.0005 | 0.0005 | 0.0004 | 0.0004 | C |
| 180 | X | 2003-08 | VDOT | Commuter Choice | | | X | | 2005 | | 0.0010 | 0.0014 | 0.0006 | 0.0006 | 0.0005 | 0.0005 | C |
| 181 | X | 2003-08 | VDOT | Employer Shuttle Services | | | X | | 2005 | | 0.0114 | 0.0166 | 0.0073 | 0.0069 | 0.0057 | 0.0057 | C |

# TERM TRACKING SHEET - CURRENT MEASURES

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FULL | SCALED-BACK | UNDER-WAY | REM | | | 2010 | | 2020 | | 2030 | | |
| | | | | | | | | | | | VOC | NOX | VOC | NOX | VOC | NOX | |
| 184 | X | 2003-08 | VDOT | Van Start / Van Save | | | X | | 2005 | till 2006 | 0.0014 | 0.0026 | | | | | C |
| 185 | X | 2003-08 | VDOT | Metro Shuttle Bus | | | X | | 2005 | 1999-2005 | 0.0012 | 0.0026 | 0.0008 | 0.0011 | 0.0006 | 0.0009 | C |
| 187 | X | 2003-08 | VDOT | VRE Mid-Day Train Service | X | | | | 2005 | 2002 | 0.0016 | 0.0029 | 0.0010 | 0.0012 | 0.0008 | 0.0010 | C |
| 190 | X | 2003-08 | VDOT | Employer Vanpool Program (Bridge deck) | | | X | | 2005 | 2004 - 2008 | 0.0009 | 0.0019 | | | | | C |
| 191 | X | 2003-08 | VDOT | Town of Leesburg P&R Lot | | | X | | 2005 | 2004 | 0.0019 | 0.0039 | 0.0012 | 0.0016 | 0.0010 | 0.0014 | C |
| 192 | X | 2003-08 | VDOT | District-wide P&R Lots | X | | X | | 2005 | 2001-2005 | 0.0113 | 0.0224 | 0.0072 | 0.0093 | 0.0059 | 0.0078 | C |
| 193 | X | 2003-08 | VDOT | Additional Parking at 4 Metro stations | | | X | | 2005 | 2001, 2005 | 0.0145 | 0.0333 | 0.0093 | 0.0139 | 0.0078 | 0.0116 | C |
| 196 | X | 2003-08 | WMATA | 64 CNG Buses (Purchased in 2001) | X | | | | 2005 | 2004 | 0.0021 | 0.0870 | | | | | SP (TCM) |
| 197 | X | 2003-08 | WMATA | 250 CNG Buses (175 buses by Dec. 2004; 75 buses by mid 2006) | | | X | | 2005 | 2004-2006 | 0.0083 | 0.3400 | | | | | SP |
| 198 | X | 2003-08 | WMATA | 60 Engine Replacement (MY 1992 & 1993 MY buses) | X | | | | 2004 | 2004 | 0.0138 | 0.0755 | | | | | SP |
| 199 | X | 2003-08 | WMATA | Car Sharing Program | X | | | | 2005 | 2004 | 0.0008 | 0.0018 | 0.0005 | 0.0008 | 0.0004 | 0.0006 | C |
| 200 | X | 2003-08 | WMATA | Bikes Racks on WMATA Buses in VA (372 Bike Racks) | X | | | | 2005 | 2004 | 0.0012 | 0.0019 | 0.0008 | 0.0008 | 0.0006 | 0.0007 | C (TCM) |
| 202 | | 2003-08 | MDOT | Fleet Replacement (state auto fleet, gas to hybrid, 250 vehicles) | | | | X | 2005 | Removed | 0.0055 | 0.0133 | 0.0022 | 0.0031 | | | SP |
| 203 | X | 2003-08 | MDOT | Replace 55 Montgomery County 10 yr. old buses w/ new CNG buses | | | X | | 2005 | n/a | 0.0000 | 0.2861 | 0.0000 | 0.0657 | | | SP |
| 204 | | 2003-08 | MDOT | Neighborhood Bus Shuttle (5 circulator routes) | | | | X | 2005 | Removed | 0.0075 | 0.0122 | 0.0048 | 0.0051 | 0.0038 | 0.0042 | C |
| 205 | X | 2003-08 | MDOT | New Surface Parking at Transit Centers (500 spaces) | | | X | | 2005 | n/a | 0.0026 | 0.0060 | 0.0017 | 0.0025 | 0.0014 | 0.0021 | C |
| 206 | | 2003-08 | MDOT | Additional Bike Lockers at Metro-Stations | | | | X | 2005 | Removed | 0.0132 | 0.0209 | 0.0085 | 0.0087 | 0.0067 | 0.0072 | C |
| 207 | X | 2003-08 | MDOT | Bike Facilities at PnR Lots or other similar location | | | X | | 2005 | n/a | 0.0093 | 0.0166 | 0.0060 | 0.0069 | 0.0048 | 0.0057 | C |
| 208 | | 2003-08 | MDOT | CNG Fueling Stations | | | | X | 2005 | Removed | 0.1270 | 0.1170 | | | | | SP |
| 209 | | 2003-08 | MDOT | Gas cap replacements (ROP Credit) | | | | X | 2005 | Removed | N/A | N/A | N/A | N/A | N/A | N/A | SP |
| 210 | | 2003-08 | MDOT | Gas can turnover (ROP Credit) | | | | X | 2005 | Removed | N/A | N/A | N/A | N/A | N/A | N/A | SP |
| 211 | X | 2003-08 | MDOT | External Bicycle Racks on WMATA Buses (486 MD buses) | X | | | | 2005 | 2002 | 0.0014 | 0.0022 | 0.0009 | 0.0009 | 0.0007 | 0.0008 | C (TCM) |
| 212 | X | 2003-08 | MDOT | Bike \ Pedestrian Trail - Anacostia River Walk | | | X | | 2005 | n/a | 0.0006 | 0.0005 | 0.0004 | 0.0002 | 0.0003 | 0.0002 | C |
| 213 | | 2003-08 | MDOT | Transit Prioritization - Queue Jumps | | | | X | 2005 | Removed | 0.0031 | 0.0037 | 0.0020 | 0.0016 | 0.0015 | 0.0013 | C |
| 214 | X | 2003-08 | MDOT | Commuter Choice Benefit/Tax Credit - Marketing Expansion | | | X | | 2005 | n/a | 0.0546 | 0.0859 | 0.0351 | 0.0358 | 0.0278 | 0.0297 | C |
| 215 | X | 2003-08 | MDOT | Improvements to Pedestrian Access in TOD areas (4 locations) | | | X | | 2005 | n/a | 0.0060 | 0.0087 | 0.0038 | 0.0036 | 0.0030 | 0.0030 | C |
| 216 | X | 2003-08 | MDOT | Telecommuting Expansion[1] | X | | | | 2005 | n/a | 0.0645 | 0.1208 | 0.0414 | 0.0503 | 0.0336 | 0.0419 | C |
| 217 | | 2003-08 | MDOT | Replace older Diesel Engine in Public Sector vehicles | | | | X | 2005 | Removed | 0.0237 | 0.1300 | | | | | H |
| 218 | X | 2003-08 | VDOT | MV-92 Telecommuting Program - Expanded[1] | X | | | | 2005 | 2003 | 0.0689 | 0.1291 | 0.0442 | 0.0537 | 0.0359 | 0.0447 | C |
| 219 | X | 2003-08 | VDOT | MV-123 Employer Outreach for Public Sector Employees [2] | X | | | | 2005 | 2003 | 0.0153 | 0.0237 | 0.0098 | 0.0099 | 0.0078 | 0.0082 | C |
| 220 | X | 2003-08 | REGION | Signal System Optimization | | | X | | 2005 | 2005 | 0.4272 | 0.1510 | 0.2879 | 0.0751 | 0.2896 | 0.0613 | TR |
| | | | | | | | | | | **Available Emissions Credits** | **2.467** | **5.072** | **1.826** | **1.436** | **1.689** | **1.319** | |

# TRANSPORTATION EMISSION REDUCTION MEASURES (CLRP Projects Only)

Credited in Air Quality Conformity Analyses (calendar years 1993-2004)
(TRACKING SHEET)

Project Category: TR - Traffic Stream, C - Commute, H - Engine Technology (Heavy Dudy Vehicles), SP- Specific Vehicle Type

| NOs | CREDIT TAKEN | TIP CREDITED | AGENCY | PROJECT | IMPLEMENTATION STATUS | | | | PROJECTED COMPLETION DATE | ACTUAL COMPLETION DATE | TONS/DAY REDUCTION CREDITED | | | | | | Project Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | FULL | SCALED-BACK | UNDER-WAY | REM | | | 2010 | | 2020 | | 2030 | | |
| | | | | | | | | | | | VOC | NOx | VOC | NOx | VOC | NOx | |
| 221 | X | 1995-00 TIP | REGION | M-24 Speed Limit Adherence | | | | | 2010 | | -0.0146 | 0.5364 | -0.0042 | 0.2365 | 0.0010 | 0.0739 | TR |
| 222 | | 1996-01 TIP | MGC | Rock Spring Park Pedestrian Amenities | | | | X | | | 0.0010 | 0.0040 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | - |
| 223 | X | 1996-01 TIP | MGC | Olney Transit Center Park and Ride | | | | | 2015 | | 0.0020 | 0.0080 | 0.0009 | 0.0030 | 0.0003 | 0.0007 | C |
| 224 | X | 1996-01 TIP | MGC | Damascus Park and Ride | | | | | | 2003 | 0.0010 | 0.0040 | 0.0004 | 0.0015 | 0.0001 | 0.0003 | C |
| 225 | X | 1996-01 TIP | DC | M-103 Taxicab Replacement (DC) | | | | | 2015 | | 0.0000 | 0.0000 | 0.1745 | 0.3000 | 0.3490 | 0.6000 | H |
| 226 | X | STADIUM ANALYSIS | | M-103 Taxicab Replacement (MD) | | X | | | 2008 | | 0.0000 | 0.0000 | 0.1560 | 0.2400 | 0.1560 | 0.2400 | H |
| 227 | X | 1997-02 TIP | MDOT | Shady Grove West Transit Center Park and Ride | | | | | | | 0.0000 | 0.0100 | 0.0000 | 0.0038 | 0.0000 | 0.0009 | C |
| 228 | X | 1997-02 TIP | MGC | Olney Transit Center Park and Ride | | | | | | | 0.0000 | 0.0000 | 0.0004 | 0.0012 | 0.0003 | 0.0007 | C |
| 229 | X | 1997-02 TIP | MGC | White Oak Park and Ride | | | | | | | 0.0000 | 0.0200 | 0.0000 | 0.0076 | 0.0000 | 0.0017 | C |
| 230 | X | 1997-02 TIP | MGC | Damascus Park and Ride | | | | | | 2003 | 0.0000 | 0.0000 | 0.0002 | 0.0005 | 0.0001 | 0.0003 | C |
| 231 | X | 1997-02 TIP | MGC | Four Corners Transit Center | | | | | 2015 | | 0.0000 | 0.0010 | 0.0000 | 0.0004 | 0.0000 | 0.0001 | C |
| 232 | | 1997-02 TIP | MGC | Burtonsville Transit Center | | | | X | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | - |
| 233 | X | 1997-02 TIP | MGC | Silver Spring Transit Access | | | | | | | 0.0000 | 0.0010 | 0.0000 | 0.0003 | 0.0000 | 0.0002 | C |
| 234 | X | 1997-02 TIP | MGC | Shady Grove Parking Construction | | | | | | 2003 | 0.0050 | 0.0190 | 0.0021 | 0.0072 | 0.0007 | 0.0017 | C |
| | | | | PLAN TOTAL | | | | | | | -0.0066 | 0.5994 | 0.1743 | 0.5621 | 0.3516 | 0.6804 | |
| | | | | GRAND TOTAL (Current Measures + CLRP plan) | | | | | | | 2.460 | 5.671 | 2.000 | 1.998 | 2.041 | 1.999 | |

DEFINITIONS:

CREDIT TAKEN ( X means emissions reduction credits taken):

TIP - Emissions credits are taken for projects being implemented, according to the progress reporting schedules provided by the implementing agencies (contained in Appendix J of Conformity Document ). No credit has been taken for projects in which only some components of the measure have been implemented.

CLRP - Credit is taken for each of these elements of the CLRP according to the schedule provided by the implementing agency.

IMPLEMENTATION STATUS:

FULL = project is completed as planned at the time of analysis.

SCALED BACK = project is completed, but at a different level than assumed at the time of analysis (i.e., purchased 50 buses instead of 100)

UNDERWAY = project is not complete, but is close enough that credit may be taken (i.e., under construction, NOT just out for bid)

REMOVED = project no longer expected to be implemented or constructed

COMPLETION DATE:

PROJECTED = project completion date originally expected (i.e., at time of emissions analysis)

ACTUAL = actual year project was open for use, or expected to be open for use if under construction

REMOVED projects

Emissions credits are not counted in toal available emissions credits

1 Line items 218, 216, 179, 92 are all credited as part of M-92 Regional Telecommute Support TERM, line item # 75

2 Line item 108 & 219 credits are taken only for year 2010

# National Capital Region Transportation Planning Board

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## M E M O R A N D U M

September 15, 2005

**TO:** Transportation Planning Board

**FROM:** Ronald F. Kirby
Director of Transportation Planning

**SUBJECT:** Significant Changes for the 2005 CLRP and FY 2006-2011 TIP

Background

At its February 16, 2005 meeting, the Board was briefed on the submissions received from state, regional and local agencies for the 2005 CLRP and the FY 2006-2011 TIP. These submissions were released for public comment and agency review at the TPB Citizens Advisory Committee (CAC) meeting on February 10. Because additional information on the submissions was received after February 10, the Board decided that the pubic comment period should be extended by releasing the updated project submission information at the March 16 TPB meeting. On April 20 the TPB reviewed the public comments and approved the project submissions for inclusion in the air quality conformity analysis.

The attached document describes the final set of significant changes for the 2005 CLRP and the FY 2006-2011 TIP. Significant changes are those relating to facility types 1, 2 and 5 (interstates, principal arterials, and other limited access parkways and roadways). Table A lists the significant change projects that are inside the TPB planning area, and Table B lists a significant change project that is outside the TPB planning area but inside the MSA. Exhibit 1 maps the significant change projects that are inside the TPB planning area. Detailed description sheets for each of the projects are attached.

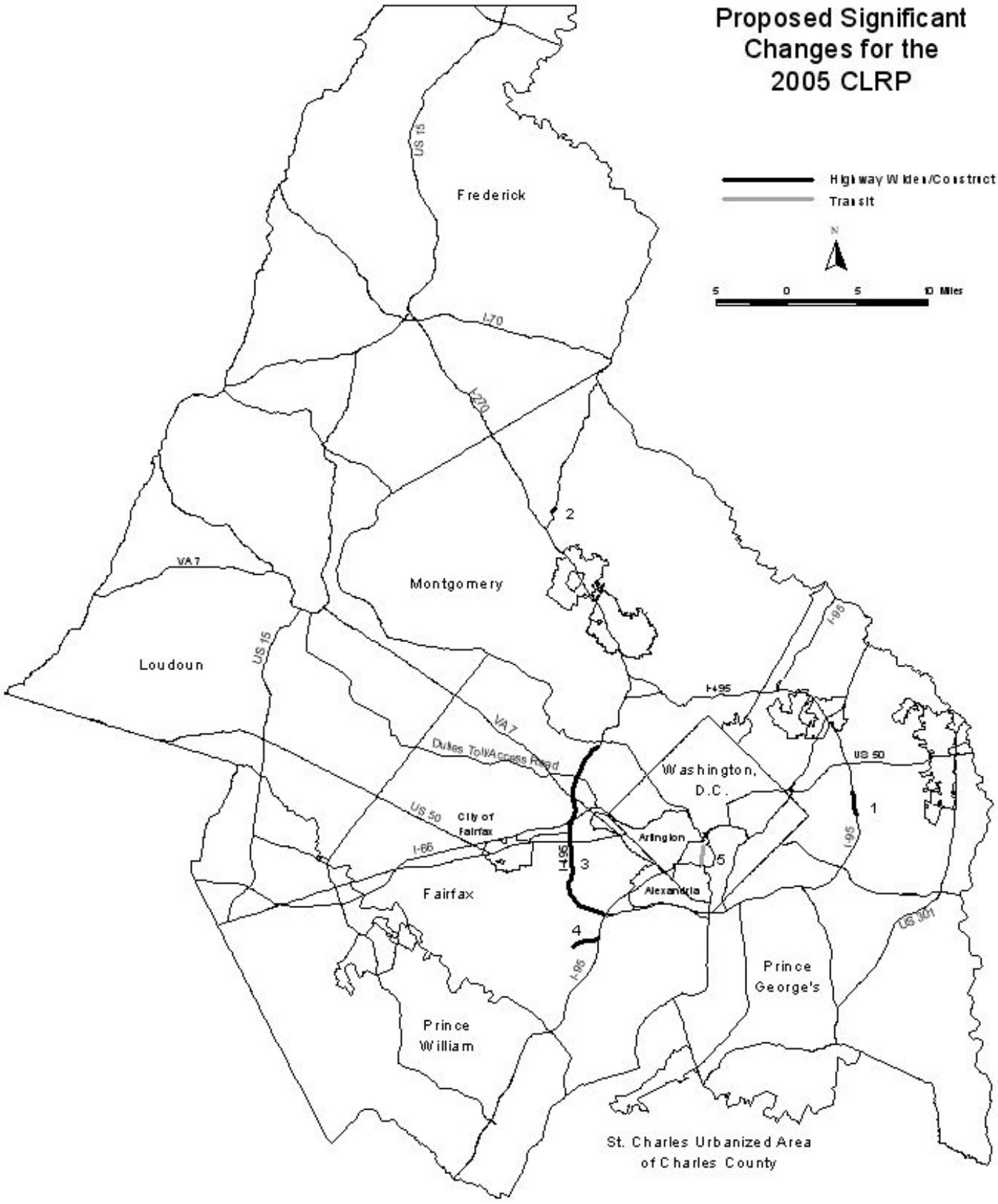
Beginning on page 23, are recently updated project description sheets and information provided by the Virginia Department of Rail and Public Transportation (VDRPT) regarding the costs and funding for Phase I of the Dulles Corridor Metrorail Project.

Two appendices to this memorandum are bound separately. Appendix A contains maps and summary descriptions of projects in the approved 2004 CLRP (as of November 17, 2004). Appendix B provides a table listing all projects to be included in

the air quality conformity analysis for the 2005 CLRP and FY 2006-2011 TIP, with shading to highlight proposed changes from the approved 2004 CLRP and FY 2005-2010 TIP.

Attachment

# Exhibit 1
# Proposed Significant Changes for the 2005 CLRP



# Table A
# Significant Changes
# for the
# Air Quality Conformity Analysis
# of the
# 2005 CLRP and FY2006-2011 TIP
# Projects Inside the TPB Planning Area

| ID | Agency | Improvement | Facility | From/At | To | Completion Date | Fac. Type | | # Lanes | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to |
| **MARYLAND** | | | | | | | | | | |
| 1 | MDOT | Construct | I-95/I-495/Arena Drive Interchange | MD 214 | MD 202 | 2010 | 1 | 1 | 8 | ***8+2*** ~~8~~ |
| ***2*** | ***MDOT*** | ***Widen*** | ***MD 27*** | ***MD 355*** | ***A 305*** | ***2006*** | ***2*** | ***2*** | ***4*** | ***6*** |
| **VIRGINIA** | | | | | | | | | | |
| 3a | VDOT | Widen/ Construct | ***I-495 HOT*** ~~I-495 HOV (peak)~~ | I-395 | S. of VA 193 (Georgetown Pike) | ***2010*** ~~2012~~ | 1 | 1 | 8 | ***8+4*** ~~10~~ |
| ***3b*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **Provides SB to WB, SB to EB, EB to SB, EB to NB, & NB to WB HOV to HOT or HOT to HOV movements** | **@ VA 267 (Dulles Toll Road)** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3c*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **All movements** | **@ VA 123 (Chain Bridge Road)** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3d*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **Provides SB to WB, WB to SB, EB to SB, NB to WB, NB to EB, & EB to NB HOV to HOT movements** | **@ I-66 HOV Lanes** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3e*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **HOT movements to and from South Only** | **@ US 29** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3f*** | ***VDOT*** | ***Construct*** | **I-495 HOT Lanes Interchange** | **All movements** | **@ VA 620 (Braddock Road)** | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***3g*** | ***VDOT*** | ***Construct*** | ***Construct ramps connecting the existing I-95 / I-395 HOV lanes on Shirley Highway to proposed HOT lanes on the Capital Beltway.*** | ***From I-95 / I-395 HOV lanes to I-495 HOT lanes*** | | ***2010*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***4a*** | ***VDOT*** | ***Upgrade*** | ***VA 7900 (Franconia/Springfield Parkway)*** | ***VA 638 (Rolling Rd.)*** | ***VA 617 (Backlick Rd.)*** | ***2020*** | ***5*** | ***1*** | ***6+2*** | ***6+2*** |
| ***4b*** | ***VDOT*** | ***Construct*** | ***VA 7900 (Franconia/Springfield Parkway)*** | ***Interchange at Neuman Street*** | | ***2020*** | ***1*** | ***1*** | ***--*** | ***--*** |
| ***5a*** | ***Arlington County*** | ***Construct*** | ***Crystal City-Potomac Yards busway (2-lane) Segment 1*** | ***Vicinity of Glebe Rd. Extended*** | ***26th St.*** | ***2006*** | ***--*** | ***--*** | ***0*** | ***2*** |
| ***5b*** | ***Arlington County*** | ***Construct*** | ***Crystal City-Potomac Yards busway (2-lane) Segment 2*** | ***26th St.*** | ***Crystal City Metro Station*** | ***2008*** | ***--*** | ***--*** | ***0*** | ***2*** |
| ***5c*** | ***Arlington County*** | ***Upgrade*** | ***Crystal City-Potomac Yards busway to BRT*** | ***Vicinity of Glebe Rd. Extended*** | ***Crystal City Metro Station*** | ***2012*** | ***--*** | ***--*** | ***0*** | ***2*** |

# Table B
# Significant Changes
# for the
# Air Quality Conformity Analysis
# of the
# 2005 CLRP and FY2006-2011 TIP
# Projects Outside the TPB Planning Area

| ID | Agency | Improvement | Facility | From/At | To | Completion Date | Fac. Type | | # Lanes | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | from | to | from | to |
| **MARYLAND** | | | | | | | | | | |
| *1* | *MDOT* | *Construct* | *MD 2/4 at Lusby Southern Connector Rd.* | *MD 765* | *MD 2/4 at Lusby* | *2010* | *0* | *2* | *0* | *3* |

# 2005
# CONSTRAINED LONG RANGE PLAN (CLRP)

**#1**

Proposed Project or Action Description Form

1. Location and Jurisdiction

Facility: **I-95/I-495/ Arena Drive Interchange Inter**
From/At: **MD 202**
To: **MD 214**
Jurisdiction: **Prince George's County**

2. Submitting Agency: **MDOT/State Highway Administration**

ProjectType: **Interstate**
Agency Project ID:
Last Modified On: **2/3/2005**

3. Project Type and Description

☑ Construction
☐ Transportation Emissions Reduction Measure (TERM)
☐ Study
☐ Maintenance and Operations
☐ Other Action/Strategy

Description of project or action:

**Construct operational and safety improvements along I-95/I-495 from MD 214 to MD 202 including conversion of the I-95/I-495 interchange at Arena Drive from a part-time interchange to a full-time interchange to handle the existing and proposed growth in the vicinity of FedEx Field and the Largo Town Center Metro Station. Three through lanes and two local C/D (Collector Distributor) lanes along I-95/495 from south of Arena Drive Ram to North of Ramp to MD 202 will be constructed. In order to accommodate the creation of the local C/D lanes, the through lanes will be shifted onto new pavement in the existing median.**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☑ | Construct | I-95/I-495/Arena Drive Interchange | MD 214 | MD 202 | 8 | 8+2 | 2010 |

5. Purpose/contribution to regional goals

**Relieve congestion at the adjacent Capital Beltway interchanges at MD 202 and MD 214 in the future so that planned economic development and the Largo Largo Town Center Metro Station can be better served.**

6. Funding and Schedule Information

Cost (In Thousands): **$29,651**
Date of completion or implementation: **2010**
Source: **Federal, State,**
Cost and schedule remarks:

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway ☑ Yes ☐ No

If yes, does this project require a CMS Documentation form under the given criteria? ☐ Yes ☑ No

If not, please identify the criteria that exempt the project here:

## CONSTRAINED LONG RANGE PLAN (CLRP)

Proposed Project or Action Description Form

# 2

1. Location and Jurisdiction

Facility: **MD 27**
From/At: **MD 355**
To: **A-305**
Jurisdiction: **Montgomery County**

2. Submitting Agency: **MDOT/State Highway Administration**
Last Modified On: **9/15/2005**

3. Project Type and Description

☑ Construction
☐ Transportation Emissions Reduction Measure (TERM)
☐ Study
☐ Illustrative Project
☐ Other Action/Strategy

Description of project or action:
**Reconstruction of MD 27 to support proposed development in Clarksburg from Brink Road to Skylark Road**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☐ | Construct | MD 27 | MD 355 | A-305 | 4 | 6 | 2006 |

5. Purpose/contribution to regional goals

**This project addresses Goal #2. It enhances the quality of life and promotes a strong and growing economy with a mix of housing and jobs in a walkable environment.**

6. Funding and Schedule Information

Cost (In Thousands): **$0**
Date of completion or implementation: **2010**
Source: **Private,**
Cost and schedule remarks:
**Road improvements will be funded by the developer.**

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway? ☐ Yes ☑ No

If yes, does this project require a CMS Documentation form under the given criteria? ☐ Yes ☑ No

If not, please identify the criteria that exempt the project here:

# 2005
# CONSTRAINED LONG RANGE PLAN (CLRP)

**#3**

Proposed Project or Action Description Form

1. Location and Jurisdiction

Facility: **I-495 HOT Lanes**
From/At: **I-95/395/495 (Springfield) Interchange**
To: **South of VA 193 (Georgetown Pike)**
Jurisdiction: **Fairfax County,**

2. Submitting Agency: **VDOT**

ProjectType: **Interstate**
Agency Project ID: **00068805**
Last Modified On: **1/31/2005**

3. Project Type and Description

☑ Construction
☐ Transportation Emissions Reduction Measure (TERM)
☐ Study
☐ Maintenance and Operations
☐ Other Action/Strategy

Description of project or action:

**Widen I-495 (Capital Beltway) to 12 lanes by adding four high-occupancy toll (HOT) lanes (two in each direction) between the Springfield Interchange and a point just south of VA 193 (Georgetown Pike). The HOT Lanes would connect (via construction of ramps as part of a separate project) to the I-95 / I-395 HOV lanes in the vicinity of the Springfield Interchange. This would permit HOT traffic to continue northward from I-95 to Georgetown Pike, and vice versa.**

**Intermediate access would be provided directly onto the HOT lanes by separate ramps at VA 620 (Braddock Road), US 29 (Lee Highway) (to and from the south only), I-66, VA 123 (Chain Bridge Road), and the VA 267(Dulles Airport Access and Toll Road). Although the existing interchanges within this segment of I-495 may be reconfigured, access to / from the general-purpose lanes from / to the interchanging arterials and freeways will be maintained by this project.**

**Access to the HOT lanes would be available to automobile, light truck, bus and transit vehicles only. The Commonwealth Transportation Board (CTB), or the Commissioner in the course of negotiating the Comprehensive Agreement, will determine the minimum number of occupants (not less than three) required to be in a vehicle for travel on the HOT lanes without payment of a toll. Any other vehicles not meeting the occupancy requirement would pay, using electronic toll collection equipment, a toll at a rate that would vary by time of day. Buses and other transit vehicles, and emergency response vehicles would operate on the HOT lanes for free.**

**This project will be financed under Virginia's Public-Private Transportation Act (PPTA) of 1995. Financing will be arranged by a private contractor and therefore will not make use of traditional funding sources. Operations are governed by Virginia HOT Lanes laws (§ 33.1-56.1 et seq. of the Code of Virginia).**

**Existing local MetroBus, Fairfax Connector, and OmniRide routes would make use of the Beltway HOT lanes. Additional routes would also be considered. Private bus operators Quick and Martz have stated that they would probably provide regular service from the south to Tysons Corner.**

**Bicycle/pedestrian accommodations included**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☑ | Widen / Constr | I-495 HOT Lanes | I-95/395/495 (Springfield) Interchange | South of VA 193 (Georgetown Pike) | 8/0 | 8/4 | 2010 |
| | ☐ | Construct | I-495 HOT Lanes Interchange | @ VA 267 (Dulles Toll Road) | SB to WB, SB to EB, EB to SB, & NB to WB | - | - | 2010 |
| | ☐ | Construct | I-495 HOT Lanes Interchange | @ VA 123 (Chain Bridge Road) | All Movements | - | - | 2010 |
| | ☑ | Construct | I-495 HOT Lanes Interchange | @ I-66 HOV Lanes | SB to WB, WB to SB, EB to SB, NB to WB, & EB to NB | - | - | 2010 |
| | ☐ | Construct | I-495 HOT Lanes Interchange | @ US 29 | To and from South Only | - | - | 2010 |
| | ☐ | Construct | I-495 HOT Lanes Interchange | @ VA 620 (Braddock Road) | All Movements | - | - | 2010 |

5. Purpose/contribution to regional goals

**Policy Goal 2, Strategy 4: When implemented, the Capital Beltway HOT lanes will support the regional activity centers located along I-495.**

**Goal 1, Objective 1, Strategy 1; Goal 2, Objectives 3 & 5, Strategies 4 & 5; Goal 4, Objective 1 & 2 , Strategies 2 & 3; and Goal 7, Objective 2.**
**When implemented, the Capital Beltway HOT lanes will:**
**1. reduce reliance on low occupancy vehicles,**
**2. increase people moving capacity in the corridor,**
**3. encourage ridesharing,**
**4. provide opportunity for new transit services,**
**5. reduce fuel consumption,**
**6. improve system reliability,**
**7. likely to reduce emissions of certain pollutants, and**
**8. minimize impacts on natural resources.**

6. Funding and Schedule Information

Cost (In Thousands): **$899,000** Date of completion or implementation: **2010**

Source: **PPTA arranged funding**

Cost and schedule remarks:

**The project is in development. The funding will be provided by a mix of non-recourse toll revenue bonds, a Federal TIFIA loan and private investors. Construction will begin in 2006 and will be completed in 2010.**

**Preliminary Engineering Costs: $73 million**
**Right-of-Way Costs: $8 million**
**Construction Costs: $818 million**

**· Project finance will be arranged by a private contractor (PPTA) through issuances of non-recourse toll revenue bonds, a Federal TIFIA loan, and private investors.**
**· TIFIA is a federal loan designed to help innovative financing and does not count against the State's allocation of federal transportation funds.**
**· No local taxpayer funds are included in the local share. All local funds will be derived from non-recourse bonds backed by toll revenues and bonds from private investors.**

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway? ☑ Yes ☐ No

If yes, does this project require a CMS Documentation form under the given criteria? ☑ Yes ☐ No

If not, please identify the criteria that exempt the project here:

**Capital Beltway HOT Lane Project - Draft Financial Plan**
**Proposed For Inclusion in the 2005 CLRP**

| **Project Cost (1000s of $):** | **2006** | **2007** | **2008** | **2009** | **2010** | **TOTAL** |
|---|---|---|---|---|---|---|
| Capital Cost | $164.8 | $259.7 | $211.9 | $159.9 | $102.8 | $899.0 |
| Debt Service - Annual element | $0.0 | $0.0 | $9.7 | $19.4 | $19.4 | $48.5 |
| Debt Service - Fixed component | $175.0 | | | | | $175.0 |
| Total Capital Cost | $339.8 | $259.7 | $221.6 | $179.3 | $122.2 | $1,122.5 |
| **Project Revenues (1000s of $):** | | | | | | |
| Non-recourse Bonds | $655.0 | | | | | $655.0 |
| TIFIA backed Bonds | $234.0 | | | | | $234.0 |
| Private Investments | $135.0 | | | | | $135.0 |
| Investment Earnings | $15.0 | $33.0 | $22.0 | $11.0 | $4.0 | $85.0 |
| Toll Revenues | $0.0 | | | | $20.6 | $20.6 |
| Total Revenue | $1,039.0 | $33.0 | $22.0 | $11.0 | $24.6 | $1,129.6 |

Notes:

1. Capital Cost includes funding for preliminary engineering, right-of-way and construction.
2. Debt Service - Annual element refers to interest paid on Bonds
3. Debt Service - Fixed component includes: (a) additional bond proceeds borrowed to fund interest payments until project revenues can be generated; (b) moneys set aside to fund debt service payments in the event of a revenue shortfall; (c) financing costs such as fees for underwriters, attorneys, ratings, printing etc. similar to loan closing costs.
4. Non-recourse bonds issued on the basis of revenue generated from the HOT lane operations.
5. TIFIA is a federal loan guarantee on the basis of which public bonds can be issued to raise revenue.
6. Investment earnings refers to interest earned on revenues collected but not yet utilized for the project.

# 2005
# CONSTRAINED LONG RANGE PLAN (CLRP) #3g

Proposed Project or Action Description Form

1. Location and Jurisdiction

Facility: **I-495 HOV (peak)**
From/At: **@ I-95/395/495 Interchange**
To: **Phase VIII (formerly listed w/ S'field Inte**
Jurisdiction: **Fairfax County,**

2. Submitting Agency: **VDOT**

ProjectType: **Interstate**
Agency Project ID: **00014682**
Last Modified On: **2/2/2005**

3. Project Type and Description

☑ Construction
☐ Transportation Emissions Reduction Measure (TERM)
☐ Study
☐ Maintenance and Operations
☐ Other Action/Strategy

Description of project or action:
**Construct ramps connecting the existing I-95 / I-395 HOV lanes on Shirley Highway to proposed HOT lanes on the Capital Beltway.**
**No bicycle/pedestrian accommodations included**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☑ | Construct | I-495 HOV (peak) | @ I-95/395/495 Interchange | Phase VIII (formerly listed w/ S'field Interch.) | - | - | 2010 |

5. Purpose/contribution to regional goals

**Policy Goal 2, Strategy 4: When implemented, the proposed HOV ramps will support the regional activity centers located along I-495.**

**Goal 1, Objective 1, Strategy 1; Goal 2, Objectives 3 & 5, Strategies 4 & 5; Goal 4, Objective 1 & 2 , Strategies 2 & 3; and Goal 7, Objective 2.**

6. Funding and Schedule Information

Cost (In Thousands): **$84,400** Date of completion or implementation: **2010**
Source: **Federal, State, Private, Bonds,**
Cost and schedule remarks:
**PE estimated at $6,549 K. CN estimated at $77,851 K.**
**Potential for this project to be funded / constructed as part of the I-495 / Capital Beltway HOT Lanes project.**

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway? ☑ Yes ☐ No
If yes, does this project require a CMS Documentation form under the given criteria? ☑ Yes ☐ No
If not, please identify the criteria that exempt the project here:

# 2005
# CONSTRAINED LONG RANGE PLAN (CLRP) #4

Proposed Project or Action Description Form

1. Location and Jurisdiction

Facility: **VA 7900 (Franconia-Springfield Parkwa**
From/At: **VA 7100 (Fairfax County Parkway)**
To: **VA 2677 (Frontier Drive)**
Jurisdiction: **Fairfax County,**

2. Submitting Agency: **VDOT**

ProjectType: **Secondary** **Fairfax County**
Agency Project ID: **VSF26**
Last Modified On: **2/2/2005**

3. Project Type and Description

☑ Construction
☑ Transportation Emissions Reduction Measure (TERM)
☐ Study
☐ Maintenance and Operations
☐ Other Action/Strategy

Description of project or action:

**Upgrade to a freeway / Implement full control of access (elimination of at-grade connections (intersections and driveways)) from VA 638 (Rolling Road) to VA 617 (Backlick Road) by the construction of an interchange @ VA 1220 (Neuman Street) (replaces the existing signal-controlled intersection w/ Bonniemill Lane.)**

**Construct HOV lanes between VA 7100 (Fairfax County Parkway) and VA 2677 (Frontier Drive).**

**Implement safety and operational improvements, as necessary.**

**Reconstruct / replace bridges, as necessary.**
**Bicycle/pedestrian accommodations included**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☐ | Construct | VA 7900 HOV (Franconia-Springfield Parkway) | VA 7100 (Fairfax County Parkway) | VA 2677 (Frontier Drive) | - | 2 | 2010 |
| | ☐ | Construct/Upg | VA 7900 (Franconia-Springfield Parkway) Interchange | @ VA 1220 (Neuman Street) | VA 638 (Rolling Road) to VA 617 (Backlick Road) | 6 | 6 | 2020 |

5. Purpose/contribution to regional goals

**Policy Goal 2, Strategy 4: Construction of additional lanes will support the Springfield regional activity center by providing improved traffic flow and relieving congestion to and from Springfield.**
**HOV lanes will relieve congestion on regular lanes and encourage carpooling by providing exclusive lanes for HOV users.**

6. Funding and Schedule Information

Cost (In Thousands): **$16,000** Date of completion or implementation: **2010**

Source: **Bonds**

Cost and schedule remarks:

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway ☐ Yes ☑ No

If yes, does this project require a CMS Documentation form under the given criteria? ☐ Yes ☑ No

If not, please identify the criteria that exempt the project here:

# CONSTRAINED LONG RANGE PLAN (CLRP)

Proposed Project or Action Description Form

**# 5**

1. Location and Jurisdiction

Facility: **Potomac Yard Transit**
From/At: **Braddock Road Metro Station**
To: **Crystal City**
Jurisdiction: **Alexandria, Arlington County,**

2. Submitting Agency: **VDOT**

Last Modified On: **8/23/2005**

3. Project Type and Description

- ☑ Construction
- ☐ Transportation Emissions Reduction Measure (TERM)
- ☑ Study
- ☐ Illustrative Project
- ☑ Other Action/Strategy

Description of project or action:

**The Virginia Department of Rail and Public Transportation (VDRPT) conducted an in-depth study of the cost benefits of various transit alternatives in the Potomac Yard Corridor between Crystal City and the Monroe Avenue Bridge. The Phase I study is complete. It identified three potential transit options for the corridor.**

**Phase II will identify a recommended transit mode and design options, develop appropriate environmental documentation, perform major capital investment study, and develop funding proposals for the project. Bicycle/pedestrian accommodations included**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☑ | Study | Crystal City - Potomac Yard Transit Analysis, Phase II | Planning, Design and Environmental Study of | Interim Transit Improvements | - | - | 2005 |
| | ☑ | Study | Crystal City - Potomac Yard Transit Analysis, Phase II | Environmental Documentation | City of Alexandria | - | - | 2006 |
| | ☑ | Construct | CC-PY Busway - Potomac Yard Segment 1 | Arlington South Tract Development (vicinity of Glebe Road Extended) | 26th Street | 0 | 2 | 2006 |
| | ☐ | Construct | CC-PY Busway - Crystal City Segment 2 | 26th Street | Crystal City Metro Station | 0 | 2 | 2008 |
| | ☐ | Upgrade | Jefferson Davis Corridor BRT (CC-PY Segment) | Arlington South Tract Development (vicinity of Glebe Road Extended) | Crystal City Metro Station | 0 | 2 | 2012 |

5. Purpose/contribution to regional goals

**Policy Goal 2, Objective 4: Plan and fund a truly integrated, multi-modal transportation system in the corridor to best meet the needs of the public. Improved internal mobility with reduced reliance on the automobile within this regional activity center. Reduce congestion and improve air quality in the region.**

6. Funding and Schedule Information

Cost (In Thousands):

Date of completion or implementation: **2012**

Source: **Federal, State, Private,**

Cost and schedule remarks:

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway? ☐ Yes ☑ No

If yes, does this project require a CMS Documentation form under the given criteria? ☐ Yes ☑ No

If not, please identify the criteria that exempt the project here:

# 2005
# CONSTRAINED LONG RANGE PLAN (CLRP) #b1

Proposed Project or Action Description Form

1. Location and Jurisdiction

Facility: **MD 2/4 at Lusby Southern Connector R**
From/At: **MD 765**
To: **MD 2/4 at Lusby**
Jurisdiction: **Calvert County**

2. Submitting Agency: **MDOT/State Highway Administration**

ProjectType: **Primary**
Agency Project ID:
Last Modified On: **2/3/2005**

3. Project Type and Description

☑ Construction
☐ Transportation Emissions Reduction Measure (TERM)
☐ Study
☐ Maintenance and Operations
☐ Other Action/Strategy

Description of project or action:
**Develop a new east-west roadway connection from MD 765 to MD 2/4 in Lusby (0.15 mile). This project will be developed in coordination with the County's "Southern Connector Road" which will be a new two-lane roadway between MD 765 and MD 760 built by the County..**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☐ | Construct | MD 2/4 at Lusby Southern Connector Road | MD 765 | MD 2/4 at Lusby | 0 | 3 | 2010 |

5. Purpose/contribution to regional goals

**This project would improve safety by providing greater intersection spacing along this portion of MD 214, a partially access-controlled roadway. It will also provide improved service to planned economic development.**

6. Funding and Schedule Information

Cost (In Thousands): **$20,428** Date of completion or implementation: **2010**

Source: **Federal, State**

Cost and schedule remarks:
**Project is outside of MPO boundaries, but is included in CLRP for air quality confirmity purposes.**

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway ☐ Yes ☑ No

If yes, does this project require a CMS Documentation form under the given criteria? ☐ Yes ☑ No

If not, please identify the criteria that exempt the project here:

# CONSTRAINED LONG RANGE PLAN (CLRP)

Proposed Project or Action Description Form

1. Location and Jurisdiction

Facility: **Intercounty Connector**
From/At: **I-270**
To: **I-95/US 1**
Jurisdiction: **Montgomery County, Prince George's County**

2. Submitting Agency: **MDOT/State Highway Administration**
Last Modified On: **02/07/200**

3. Project Type and Description

☑ Construction
☐ Transportation Emissions Reduction Measure (TERM)
☐ Study
☐ Illustrative Project
☐ Other Action/Strategy

Description of project or action:
**Construct a new east-west, multi-modal highway in Montgomery and Prince George's counties between I-270 and I-95/US 1. The project will include managed lanes with express bus service connecting to Metrorail stations, and is currently undergoing a National Environmental Policy Act study which is considering two build corridors.**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☑ | Construct | Intercounty Connector | I-270 | I-95/US 1 | 0 | 6 | 2010 |
| | ☑ | Construct | GARVEE Bond Repayment | | | | | 2025 |

5. Purpose/contribution to regional goals

**The purpose of the Intercounty Connector (ICC) project is to link existing and proposed developed areas between the I-270 and I-95/US 1 corridors within central and eastern Montgomery County and northwestern Prince George's County with a state-of-the-art, multi-modal, east-west highway that limits access and accommodates passenger and goods movement. This transportation project is intended to increase community mobility and safety; to facilitate the movement of goods and people to and from economic centers; to provide cost-effective transportation infrastructure to serve existing and future development patterns reflecting local land use planning objectives; to help restore the natural, human and cultural environments from past development impacts in the project area; and to advance homeland security.**

6. Funding and Schedule Information

Cost (In Thousands): **$2,446,306**
Date of completion or implementation: **2010**
Source: **Federal, State, Bonds**
Cost and schedule remarks:
**Project is in project planning and preliminary engineering phase. The current funding concept plan assumes the project will be paid for with a mix of Maryland Transportation Authority bonds, GARVEE bonds, State funds, and special federal funds. (See attached table.)**
**The cost shown in the table does not include the cost of financing.**

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway? ☑ Yes ☐ No

If yes, does this project require a CMS Documentation form under the given criteria? ☑ Yes ☐ No

If not, please identify the criteria that exempt the project here:

# Transportation Improvement Program (TIP)

Proposed Project or Action Description Form
FY 2005-2010

1. Agency: **MDOT/State Highway Administration** Last Modified On: **02/07/200**

2. Location and Jurisdiction

Facility: **Intercounty Connector**
From/At: **I-270**
To: **I-95/US 1**
Jurisdiction: **Montgomery County, Prince George's County**

3. Description of Project or Action

**Construct a new east-west, multi-modal highway in Montgomery and Prince George's counties between I-270 and I-95/US 1. The project will include managed lanes with express bus service connecting to Metrorail stations, and is currently undergoing a National Environmental Policy Act study which is considering two build corridors. Total costs to construct the ICC are shown on this line item. The debt service associated with the GARVEE funding source is shown for informational purposes on a separate line item.**

4. Project Status

**In previous TIP, proceeding as scheduled**

5. Environmental Review

**DEIS** **Under preparation**

6. Funding and Schedule Information

Date of completion or implementation: **2010**

| Source | FY | Amount ($1,000s) | Phase | % Fed/State/Loc | | |
|---|---|---|---|---|---|---|
| GARVEE (AC) | | | | | | |
| | 2006 | $400,000 | R.O.W. Acquisition | 100 | 0 | |
| | 2008 | $400,000 | Construction | 100 | 0 | |
| | 2010 | $200,000 | Construction | 100 | 0 | |
| MdTA | | | | | | |
| | 2004 | $3,207 | R.O.W. Acquisition | 0 | 100 | |
| | 2004 | $36,793 | P.E. | 0 | 100 | |
| | 2005 | $4,750 | R.O.W. Acquisition | 0 | 100 | |
| | 2005 | $25,250 | P.E. | 0 | 100 | |
| | 2007 | $190,059 | Construction | 0 | 100 | |
| | 2007 | $14,941 | R.O.W. Acquisition | 0 | 100 | |
| | 2008 | $130,000 | Construction | 0 | 100 | |
| | 2009 | $572,000 | Construction | 0 | 100 | |
| | 2010 | $180,000 | Construction | 0 | 100 | |
| | 2011 | $90,000 | Construction | 0 | 100 | |
| Special Fed. | | | | | | |
| | 2005 | $250 | R.O.W. Acquisition | 100 | 0 | |
| | 2006 | $9,750 | R.O.W. Acquisition | 100 | 0 | |
| | 2007 | $10,000 | Construction | 100 | 0 | |
| | 2008 | $10,000 | Construction | 100 | 0 | |
| | 2009 | $10,000 | Construction | 100 | 0 | |
| | 2010 | $10,000 | Construction | 100 | 0 | |
| State | | | | | | |
| | 2006 | $2,506 | R.O.W. Acquisition | 0 | 100 | |
| | 2006 | $27,494 | P.E. | 0 | 100 | |
| | 2007 | $17,487 | R.O.W. Acquisition | 0 | 100 | |
| | 2007 | $12,513 | P.E. | 0 | 100 | |
| | 2008 | $30,000 | Construction | 0 | 100 | |
| | 2009 | $30,000 | Construction | 0 | 100 | |
| | 2010 | $30,000 | Construction | 0 | 100 | |

Cost and schedule remarks:

**Project is in project planning and preliminary engineering phase. The current funding concept plan assumes the project will be paid for with a mix of Maryland Transportation Authority bonds, GARVEE bonds, State funds, and special federal funds.**
**The cost shown does not include the cost of financing.**

# Transportation Improvement Program (TIP)

Proposed Project or Action Description Form

FY 2005-2010

1. Agency: **MDOT/State Highway Administration** Last Modified On: **02/07/200**

2. Location and Jurisdiction

Facility: **GARVEE Bond Repayment**
From/At:
To:
Jurisdiction:

3. Description of Project or Action

**Repayment of GARVEE bond proceeds used for the Intercounty Connector Project. Debt service continues for 15 years following issuance.**

4. Project Status

**In previous TIP, proceeding as scheduled**

5. Environmental Review

**N/A**

6. Funding and Schedule Information

Date of completion or implementation: **2025**

| Source | FY | Amount ($1,000s) | Phase | % Fed/State/Loc | |
|---|---|---|---|---|---|
| NHS | | | | | |
| | 2007 | $40,000 | R.O.W. Acquisition | 100 | 0 |
| | 2008 | $40,000 | R.O.W. Acquisition | 100 | 0 |
| | 2009 | $40,000 | Construction | 100 | 0 |
| | 2009 | $40,000 | R.O.W. Acquisition | 100 | 0 |
| | 2010 | $40,000 | Construction | 100 | 0 |
| | 2010 | $40,000 | R.O.W. Acquisition | 100 | 0 |
| | 2011 | $40,000 | R.O.W. Acquisition | 100 | 0 |
| | 2011 | $60,000 | Construction | 100 | 0 |

Cost and schedule remarks:

**NHS funding levels will be accommodated with transfers from other funding sources (STP/IM/BR) as required.**

## *ICC CONCEPTUAL FUNDING PLAN*
($millions)

| **Components** *(Funding Sources)* | **As Presented To Transportation Task Force** "Hellmann Commission" September 2003 | **Current Range and Likely Scenario** | **Comments** |
|---|---|---|---|
| **Total Cost** | $1,700 | $1,800 - $2,100<br>$300<br>$2,100 - $2,400 | - Expressed in 2004 values - nearest $100 million<br>- (Inflation adds approx. $100 million per year; approximately $300 million total)<br>- Total - nearest $100 million; ($,2,400 is assumed for financial planning purposes.) |
| **GARVEE Bonds** *(Federal Funds)* | $900 - $1,000 | $1,000 | - Same as upper limit presented to Transportation Task Force<br>- Future federal highway funds pay debt service<br>- GARVEE bond term: 15 years<br>- Maximum debt service is approx. $100 million per year. (Ramps up to maximum level over 5-6 years.)<br>- $100 million is approx. 20% of expected average annual federal highway funding ($500 million + per year)<br>- 20% cap on GARVEE debt service - (currently 13%)<br>- MdTA issues GARVEES; no affect on State's or MDOT's debt affordability / caps |
| **MdTA Bonds** *(MdTA revenues)* | $400 - $600 *(ICC Tolls)*<br>$100 - $350 *(MdTA bonding)* | $1,200 | - ICC would be part of Maryland Transportation Authority's system of toll highways, bridges, tunnels.<br>- Authority issues bonds backed solely by Authority revenues.<br>- Toll revenues from all facilities are pooled, supporting the total system.<br>- ICC tolls will assist in managing traffic as well as project financing.<br>- ICC tolls expected to pay for approximately $400 - $600 million of project cost. |
| **Pay-As -You Go** *(MDOT - TTF)* | $50 - $300 | $150 | - Within range presented to Transportation Task Force |
| **Pay-As-You-Go** *(Special Fed. Funds)* | $10 - $50 | $50 | - No change from range presented to Transportation Task Force<br>- Funds authorized or appropriated directly for ICC |

MARYLAND
TRANSPORTATION
AUTHORITY

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Governor

Michael S. Steele
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February 4, 2005

The Honorable Phil Mendelson, Chairman
National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street, N.E.; Suite 300
Washington, D.C. 20002-4290

Attention: Mr. Ronald F. Kirby

Dear Sirs:

In addition to issuing GARVEES for the Intercounty Connector Project (ICC), the Maryland Transportation Authority (Authority) will fund approximately $1.24 billion of project costs (including $1.12 billion in the FY 2005 –FY 2010 period). This funding will be provided from Authority toll revenue bonds (and potentially cash), supported by Authority revenues (primarily toll revenues). The funding for the ICC is included in the Authority's FY 2005-2010 capital program, which includes an additional $1.61 billion in other Authority projects.

With recent toll increases and a proven revenue stream, the Authority is able to undertake its capital program obligations including the ICC. Annual Authority revenues are projected to be $292 million in FY 2005 and $301 million in FY 2006. The Authority has been conservative in its use of debt and adheres to strict financial goals and standards, including those imposed in its trust agreement and bond indentures. The Authority's goal is to maintain cash reserves approximately equal to annual toll revenues, and a coverage factor of net revenues being two times annual debt service.

In 2004, the Authority received its highest-ever bond ratings, including Aa3 (Moody's Investors Service) and AA- (Fitch Ratings). The A+ rating from Standard and Poors was unchanged. These ratings took into consideration the Authority's intent to undertake the ICC project.

The Authority was established by the Maryland General Assembly as an independent state agency in 1971. It consists of six members appointed by the Governor with the advice and consent of the State Senate. Each member serves a three-year term. Maryland's Secretary of Transportation serves as the Authority's chairman.

Pursuant to the enabling legislation, the Authority is responsible for the construction, operation, maintenance and repair of revenue-producing transportation facilities projects. All existing highway toll facilities in

Maryland are owned, operated and maintained by the Authority, which has the exclusive right to levy tolls within the State. Current toll facilities include:

- John F. Kennedy Memorial Highway (I-95);
- Thomas Hatem Memorial Bridge (US 40);
- Fort McHenry Tunnel (I-95);
- Baltimore Harbor Tunnel (I-895);
- Francis Scott Key Bridge (MD 695);
- William Preston Lane Jr. Memorial (Bay) Bridge (US 50/301); and
- Governor Harry W. Nice Memorial Bridge (US 301).

The Intercounty Connector will be the Authority's eighth toll facility.

Acting on behalf of the Department, the Authority has various powers and duties relating to the supervision, financing, construction, operation, maintenance and repair of transportation facilities projects. In addition to its existing transportation facilities projects, the Authority may authorize the acquisition, financing, or construction of any other projects for transportation facilities, including airport, highway, port, rail and transit facilities, as "transportation facilities projects." The Authority is empowered to finance the cost of transportation facilities projects by the issuance and sale of revenue bonds, notes, or other obligations.

If additional information is needed, please do not hesitate to contact me.

Sincerely,

Trent M. Kittleman
Executive Secretary

# CONSTRAINED LONG RANGE PLAN (CLRP)

Proposed Project or Action Description Form

1. Location and Jurisdiction

Facility: **Dulles Corridor Metrorail Project**
From/At: **East Falls Church Metrorail Station**
To: **Route 772 (Loudoun County)**
Jurisdiction: **Fairfax County, Loudoun County,**

2. Submitting Agency: **VDRPT**

Last Modified On: **9/8/2005**

3. Project Type and Description

☑ Construction
☐ Transportation Emissions Reduction Measure (TERM)
☑ Study
☐ Illustrative Project
☑ Other Action/Strategy

Description of project or action:

**The project is a 23.1 mile extension of the existing Metrorail system from the Orange Line in Fairfax County through Tysons Corner to Washington Dulles International Airport and Route 772 in Loudoun County. Most of the extension would be constructed in the median of the Dulles Airport Access Road and Dulles Connector Road, but the alignment would also directly serve Tysons Corner and Dulles Airport. The extension would include 11 new Metrorail stations, a rail yard site on Dulles Airport property, and an expansion of the existing rail yard at West Falls Church. Four of the new stations would be located within Tysons Corner. Construction of the project would occur in two phases.**

**Bicycle/pedestrian accommodations included**

4. Project Phasing

| Project ID | In TIP | Improvement | Facility | From | To | # Lane From | # Lane To | Completion Date |
|---|---|---|---|---|---|---|---|---|
| | ☐ | Incorporate | Dulles Corridor - BRT Elements into the Express Bus Service in the Corridor | East Falls Church Metrorail Station | Route 772 | - | - | 2002 |
| | ☐ | Study | Dulles Corridor Rapid Transit - NEPA | East Falls Church Metrorail Station | Route 772 | - | - | 2005 |
| | ☑ | Construct | Dulles Corridor Metrorail Project - Phase 1 | East Falls Church Metrorail Station | Wiehle Avenue | - | - | 2011 |
| | ☐ | Construct | Dulles Corridor Metrorail Project - Phase 2 | Wiehle Avenue | Route 772 | - | - | 2015 |

5. Purpose/contribution to regional goals

**This project contributes to all regional goals identified in the Policy Element of the Transportation Plan for the National Capital Region including: Transportation and Land Development objectives of concentrating development in transportation corridors and encouraging transit-friendly site design at subregional centers; Transportation, Environmental & Energy objectives of compliance with Clean Air Act amendments, reducing SOV travel, reducing congestion and improving traffic flow, reducing transit travel time; providing better access to regional opportunities for transit-dependent persons, and meeting ADA requirements. The project also contributes to interregional transportation and transportation system objectives by creating a multi-modal transportation link to Dulles International Airport, expanding enhancing cost-effective transit alternatives, developing intermodal facilities with Metrobus, local bus systems, and VRE, and providing park and ride facilities. This project contributes to the region's goal for congestion management by applying ITS technologies to an existing transportation system.**

6. Funding and Schedule Information

Cost (In Thousands): **$3,704,100**

Date of completion or implementation: **2015**

Source: **Federal, State, Local,**

Cost and schedule remarks:

**Phase 1: $1.84 Billion**
**Phase 2: $1.864 Billion**
**Total: $3.704 Billion**

**Sources of capital funding: Federal Transit Administration Section 5309 - $1,852 million (50%); Commonwealth of Virginia - $926 million (25%); Local (Fairfax County, Loudoun County, MWAA) - $926 million (25%)**

***Phase 1 figures updated according to the "Dulles Corridor Metrorail Project: FY07 New Starts Update - Project Financial Plan and Supporting Documentation" released August 2005.**

7. CMS Documentation

Is this a highway capacity-increasing project on a limited access or other principal arterial highway? ☐ Yes ☑ No

If yes, does this project require a CMS Documentation form under the given criteria? ☐ Yes ☑ No

If not, please identify the criteria that exempt the project here:

# COMMONWEALTH of VIRGINIA

KAREN J. RAE
DIRECTOR

DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION
DULLES CORRIDOR METRORAIL PROJECT
1595 SPRING HILL ROAD, SUITE 600
VIENNA, VIRGINIA 22182-2228

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VIRGINIA RELAY CENTER
1-800-828-1120 (TDD)

September 6, 2005

Mr. Ronald Kirby
Director, Department of Transportation Planning
Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, D.C. 20002

Subject: Dulles Corridor Metrorail Project
Updated Financial Plan

Letter No.: 11111-000-T05-GAMO-00094; WBS Nos. RT00.00.4.5 & RT00.00.7.1

Dear Mr. Kirby:

Attached for your information is a copy of the *Project Financial Plan and Supporting Documentation* for the Dulles Corridor Metrorail Project – Wiehle Avenue Extension recently submitted to the Federal Transit Administration as part of its annual review of New Starts projects.

The attached financial plan only addresses the initial phase of the Project (from the Orange Line to Wiehle Avenue) and is based on the current preliminary engineering cost estimate. The cost and schedule information included in this plan should be incorporated into future updates of the region's Constrained Long-Range Plan and Transportation Improvement Program. Updated cost and schedule information for the Project's second phase (from Wiehle Avenue to Route 772 in Loudoun County) will be available early next year.

Mr. Ronald Kirby
Letter No.: 11111-000-T05-GAMO-00094
September 6, 2005

If you have any questions, please contact me at (703) 288-5919 or Karl Rohrer at (703) 288-5924 or via e-mail at karl.rohrer@dullesmetro.com.

Sincerely,

Charles S. Carnaggio, P.E.
Dulles Corridor Metrorail Project
Project Director

KAR/CSS/kc

Enclosure

cc: B. Glenn, FTA Washington Metropolitan Office (w/o enclosure)
D. Weeks, FTA Headquarters (w/o enclosure)
P. Kampf, FTA Region III (w/o enclosure)
K. Rohrer, DRPT (w/o enclosure)
D. Korzym, WMATA (w/o enclosure)
T. Harrington, WMATA (w/o enclosure)


# WIEHLE AVENUE EXTENSION

## Preliminary Financial Plan

*Prepared by*

**Virginia Department of Rail and Public Transportation**

*in cooperation with*

**Washington Metropolitan Area Transit Authority**

*and*

**Fairfax County, Virginia**

**August 2005**

# TABLE OF CONTENTS

# LIST OF TABLES

# 1 INTRODUCTION

The Virginia Department of Rail and Public Transportation (DRPT), in cooperation with the Washington Metropolitan Area Transit Authority (WMATA) and local jurisdictions, is planning to construct a new rapid rail transit system in the fast growing Dulles Corridor located in Northern Virginia outside Washington, D.C. The Dulles Corridor Metrorail Project (the Project) consists of a 23.1-mile extension of the region's existing Metrorail system, 11 new stations, a rail yard site on Washington Dulles International Airport (Dulles Airport) property, and an expansion of the existing rail yard at West Falls Church.

Due to Federal funding limitations and the timing of local funding availability, DRPT intends to construct the Project in two major phases. The Wiehle Avenue Extension (Phase 1) would complete the first segment of the planned extension from the existing Metrorail Orange Line to Wiehle Avenue in Reston, Virginia. The Route 772/Dulles Airport Extension (Phase 2) would complete the remainder of the locally preferred alternative (LPA) to Route 772 in Loudoun County, Virginia.

Over the past three years, DRPT and its local funding partners have developed a workable, comprehensive financial plan for the Project. Funding sources for both the Project's capital and operating plans have been identified and initial funding commitments have been secured. Several administrative or legislative actions necessary to appropriate or program funding for the Project have also been completed.

**This preliminary Financial Plan (Plan) describes the Project's ongoing financial planning activities and progress made to date in identifying the funding sources necessary to complete construction of Phase 1 of the Dulles Corridor Metrorail Project.** The Plan has been prepared in accordance with the FTA's *Guidance for Transit Financial Plans* (June 2000). The remainder of this preliminary Financial Plan includes the following sections:

- An overview of the Project sponsors and funding partners; current Project status and planned implementation schedule; and a summary of the plan (Sections 1.2 – 1.4);

- Details on the Project's capital financing plan, including cost estimates, funding sources, cost allocation among the funding partners, and proposed financing techniques. (Chapter 2); and

- A description of the Project's operating funding plan, including estimated operating costs, operating subsidy funding sources and allocation, and an assessment of the long-term effects on the WMATA capital and operating budgets (Chapter 3).

## 1.1 PROJECT SPONSORS AND FUNDING PARTNERS

Two elements of the planned implementation approach for the Project are unique and affect the structure of the Financial Plan. As described in Section 1.2, different public agencies will be responsible for the two major elements of the Plan. DRPT will be the lead agency for capital funding and general oversight of the capital construction program. WMATA will operate the system and be the lead agency for ongoing operating and maintenance funding. Second, DRPT intends to use the Virginia Public-Private Transportation Act and a design-build approach to implement the Project. This financial structure is necessary because of the structure and policies of WMATA, the region's mass transit agency.

**Table 2-1**
**CAPITAL COST ESTIMATE AND SCHEDULE –WIEHLE AVENUE EXTENSION (Thousands YOE Dollars)**

| FTA Standard Cost Category | Total | 6/30/05 & Prior[1] | 7/1/05 - 9/30/05 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Guideway and Track Elements | $405,118 | - | - | $230 | $70,662 | $166,547 | $135,679 | $32,000 | - | - | - | - |
| Stations, Stops, Terminals, Intermodal | $288,409 | - | - | $11,312 | $65,545 | $87,929 | $77,977 | $45,646 | - | - | - | - |
| Yards, Shops, Admin/Support Facilities | $12,040 | - | - | - | $1,494 | $4,096 | $3,773 | $1,759 | $919 | - | - | - |
| Sitework and Special Conditions | $106,375 | - | - | $2,457 | $24,140 | $33,763 | $31,151 | $14,864 | - | - | - | - |
| Systems | $159,564 | - | - | $78,494 | $81,070 | - | - | - | - | - | - | - |
| ROW, Land, Existing Improvements | $265,513 | - | - | $488 | $12,871 | $91,989 | $94,629 | $64,914 | $622 | - | - | - |
| Vehicles[2] | $198,336 | - | - | - | $1,581 | $23,713 | $26,936 | $22,336 | $104,456 | $12,831 | $4,167 | $2,316 |
| Soft Costs[3] | $255,827 | $24,115 | $4,959 | $72,304 | $41,811 | $30,945 | $31,833 | $32,747 | $17,114 | - | - | - |
| Contingency[4] | $93,692 | | | $1,260 | $15,192 | $33,419 | $29,844 | $13,842 | $134 | - | - | - |
| Financing[5] | $55,234 | | | | | - | $7,750 | $12,746 | $12,389 | $11,632 | $7,402 | $3,316 |
| **Total Project Costs[6]** | **$1,840,108** | **$24,115** | **$4,959** | **$166,544** | **$314,365** | **$472,402** | **$439,572** | **$240,852** | **$135,634** | **$24,463** | **$11,569** | **$5,632** |

Notes:

1. Costs may differ from the 50% Preliminary Engineering cost estimate presented in the August 15, 2005 New Starts update. "6/30/05 & Prior" includes actual expenditures up to June 30, 2005, and "7/1/05 – 9/30/05" includes estimated expenditures for the remainder of FY 2005. Fiscal Year (FY) runs October 1 to September 30.
2. *Vehicles* costs in 2014 include projected expenditures in 2016, which include manufacturer withholding payments that are released upon final acceptance of vehicles. These funds would be obligated in FY 2014.
3. *Soft Costs* include preliminary engineering, final design, construction management, project management, owner administration, FTA and other agency coordination, insurance, and project start-up and testing.
4. *Contingency* costs are unallocated contingency, and include allowances for change orders.
5. Estimated financing costs include total interest charges on $265M in FRANs between FY09-FY14. Assumes an interest rate of 4.65% and 5% for underwriting fees and issuance costs.
6. Costs shown are preliminary and subject to change based on the results of Preliminary Engineering, design-build negotiations, federal approvals and funding availability. Internal totals may not equal due to rounding.