

AIR QUALITY CONFORMITY DETERMINATION
OF THE 2009 CONSTRAINED LONG RANGE PLAN
AND THE FY2010-2015
TRANSPORTATION IMPROVEMENT PROGRAM
FOR THE
WASHINGTON METROPOLITAN REGION

July 15, 2009

(NOTE: Updated October 27, 2009 with minor technical corrections. Pages with corrections are so noted. The updates do not affect the conformity finding)

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NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

ABSTRACT

TITLE: Air Quality Conformity Determination Of The 2009 Constrained Long Range Plan And The FY2010-2015 Transportation Improvement Program For The Washington Metropolitan Region

DATE: July 15, 2009

AGENCY: The Metropolitan Washington Council of Governments is the regional planning organization of the Washington area's major local governments. COG works on finding solutions to regional problems, especially those related to regional growth, transportation, housing, human services, and the environment.

ABSTRACT: This report documents the assessment of the 2009 Constrained Long Range Plan (CLRP) and the FY2010-2015 Transportation Improvement Program (TIP) with respect to air quality conformity requirements under the 1990 Clean Air Act Amendments. The assessment used criteria and procedures contained in the Environmental Protection Agency (EPA)'s final conformity rule, published in the November 24, 1993 Federal Register, with subsequent amendments and additional federal guidance published by the Environmental Protection Agency (EPA) and by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The assessment is a responsibility of the National Capital Region Transportation Planning Board (TPB).

The report presents an overview of the conformity requirements contained in the legislation and subsequent guidance, and documents the technical procedures used in the analysis including travel demand forecasting, emissions calculation procedures and impacts of transportation emission reduction measures. The analysis demonstrates that mobile source emissions, estimated for the TIP and for each analysis year of the long range plan, adhere to all carbon monoxide, ozone season volatile organic compound and nitrogen oxide, and fine particle (PM_{2.5}) pollutants (direct PM_{2.5} and precursor nitrogen oxide) emissions budgets established by the Metropolitan Washington Air Quality Committee (MWAQC), which are either approved or under review by the EPA. Additionally, the "action scenario" (forecast year) emissions for fine particles are not greater than the base year 2002 emissions, thus satisfying the requirement for pollutants without an established budget. These results provide a basis for a determination of conformity of the 2009 CLRP and the FY2010-2015 TIP.

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EXECUTIVE SUMMARY

This report documents the air quality conformity assessment of the 2009 Constrained Long Range Plan (CLRP) and the FY2010-2015 Transportation Improvement Program (TIP) as carried out under the regulations contained in the Environmental Protection Agency's final rule, published in the November 24, 1993 *Federal Register*, with subsequent amendments and additional federal guidance published by the Environmental Protection Agency (EPA) and by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The process involved consultation with affected agencies such as the EPA, the FHWA, the FTA, and the Metropolitan Washington Air Quality Committee (MWAQC), as well as with the public. The assessment is a responsibility of the National Capital Region Transportation Planning Board.

The first chapter of this report provides a context for the analysis. Chapter II presents an overview of the conformity requirements. This includes a background section on guidance documents following the passage of the 1990 Clean Air Act Amendments, as well as an overview section of the conformity regulations.

Chapter III documents the technical methods and results of the analysis of the CLRP and TIP. The chapter begins with explicit consideration of the overall approach to performing the assessment, i.e., development of a work program which would address all technical and policy requirements of the regulations, respond to comments received on previous analyses and incorporate technical refinements. The discussion provides technical details relating to the travel demand forecasting procedures utilized (network development, transportation/land use interaction, trip table development, modal choice, and traffic assignment), the development of vehicular emissions rates and the subsequent calculation of emissions.

Conformity assessment criteria vary by pollutant. Tests include adherence to mobile source emissions budgets in the case of ozone season pollutants (VOC and NO_x) and CO, and a demonstration that forecast year PM_{2.5} (including both directly emitted PM_{2.5} and precursor NO_x) emissions are not greater than base year 2002 emissions. One hour ozone precursor mobile emissions budgets are taken from the Metropolitan Washington Air Quality Committee (MWAQC)'s Severe Area State Implementation Plan (SIP) (1-hour ozone non-attainment area) document, Plan to Improve Air Quality in the Washington, DC-MD-VA Region, February 19, 2004. In 2007 MWAQC completed the development of the 8-hour ozone SIP with new mobile emissions budgets, which also correspond to a different geographic area. Similarly, in 2008 MWAQC approved, and the state air agencies subsequently submitted to EPA, the region's PM_{2.5} Attainment Plan. Adherence to both the 8-hour ozone and PM_{2.5} budgets is also documented in this report, even though EPA has not yet acted upon them.

Emissions estimates for all pollutants were developed for 2010, 2020, and 2030 forecast

years, using both network analysis and off-line emissions assessment. The results show that the 2009 CLRP and the FY2010-2015 TIP demonstrate adherence to relevant mobile source emissions budgets for all forecast years, and that forecast year fine particles pollutants emissions are not greater than the base year 2002 emissions.

Chapter IV addresses interagency and public consultation procedures. These procedures were originally developed in response to the November 1993 regulations and were subsequently updated in response to the August 15, 1997 amendments. The updated procedures were adopted by the TPB in May 1998 and were followed in development of this year's CLRP and TIP.

Chapter V presents the assessment of the 2009 CLRP and the FY2010-2015 TIP with respect to EPA's criteria and procedures. This chapter responds to specific sections of the conformity regulations on a point by point basis, documenting adherence of the overall conformity assessment to the specific technical, policy and procedural requirements.

Based upon this assessment, Chapter VI conveys the results of the study, that the technical analysis provides a basis for a determination of conformity of the 2009 CLRP and the FY2010-2015 TIP.

TABLE OF CONTENTS

I.	Introduction	1
II.	Conformity Assessment - Requirements	
A.	Background	1
B.	Conformity Regulations	3
C.	Report Organization	8
III.	Technical Methods	
A.	Approach	8
B.	Technical Work Activities	9
C.	Travel Forecasts	14
D.	Emission Rates	25
E.	Emissions Calculations	28
F.	Net Emissions Analysis	47
IV.	Consultation	60
V.	Conformity Assessment - Criteria and Procedures	
A.	Conformity Criteria	62
B.	Relationship to Criteria	62
VI.	Findings	66

LIST OF EXHIBITS

	<u>Page</u>
1. Analysis Structure.....	10
2. Planning Areas Map	12
3. Emissions Calculation (flowchart).....	13
4. Major Transit Improvements.....	15-16
5. Coded HOV/HOT Improvements	17
6. Rail & Road Miles	18
7. Household Data	21
8. Employment Data	22
9. Mode Analysis.....	23
10. Vehicle Trips and AAWDT to ADT adjustment factors.....	24
11. VMT vs. Land Activity	26
12. PM Peak Hour VMT	27
13. Running Emission Factors - VOC.....	29
14. Running Emission Factors - NOx	30
15. Emissions Rates – Direct PM _{2.5}	31
16. Mobile Source Emissions – 2010 VOCs.....	33
17A. Mobile Emissions Inventory Summary Table – VOC & NOx – 1-hr ozone area ..	35
17B. Mobile Emissions Inventory Summary Table – VOC & NOx – 8-hr ozone area...	36
18. Mobile Emissions Inventory Summary Table – Direct PM _{2.5}	37
19. Mobile Emissions Inventory Summary Table – PM _{2.5} Precursor NOx	38
20. Mobile Emissions Inventory Summary Table – Wintertime CO	39
21A. Mobile Source Emissions – VOC – 1-hr ozone area	41
21B. Mobile Source Emissions - VOC – 8-hr ozone area.....	42
22A. Mobile Emissions – NOx – 1-hr ozone area	43
22B. Mobile Emissions – NOx – 8-hr ozone area	44
23. Mobile Source Emissions – PM _{2.5} Precursor NOx and Direct PM _{2.5}	45
24. Emissions - Wintertime CO	46
25. TERM Tracking Sheet - ozone.....	48-53
25. TERM Tracking Sheet – PM _{2.5}	54-59
26. TPB Public Involvement Schedule	61
27. Current Conformity Criteria	63
28. Funding Categories in the FY2009 TIP Annual Element	65

LIST OF APPENDICES

A.	Air Quality Conformity Scope of Work.....	A1-A8
B.	List of Project Inputs.....	B1-B50
C.	Interagency and Public Involvement Process.....	C1-C09
D.	Documentation of Emission Factor Development	D1-D33
E.	Documentation of Mobile Source Emission Calculations (post-processor) ..	E1-E23
F.	Vehicle-related Emissions Calculations.....	F1-F4
G.	Auto Access Emissions Calculations.....	G1-G42
H.	Bus Emissions Estimation.....	H1-H15
I.	TERM Implementation Reports.....	I1-I11

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LIST OF ACRONYMS

AWDT	Average Weekday Traffic
BMC	Baltimore Metropolitan Council
CAAA	Clean Air Act Amendments of 1990
CAC	Citizens Advisory Committee
CLRP	Constrained Long Range Plan
CMAQ	Congestion Mitigation & Air Quality
CO	Carbon Monoxide
DC DOT	District of Columbia Department of Transportation
DTP	(COG's) Department of Transportation Planning
FAMPO	Fredericksburg Area Metropolitan Planning Organization
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
G/MI	Grams Per Mile
HOV	High Occupancy Vehicle
I/M	Inspection and Maintenance
LOV	Low Occupancy Vehicle
MDOT	Maryland Department of Transportation
MPO	Metropolitan Planning Organization
MSA	Metropolitan Statistical Area
MWAQC	Metropolitan Washington Air Quality Committee
MWCOG	Metropolitan Washington Council of Governments
NO _x	Nitrogen Oxides
P's & A's	Productions and Attractions
PM _{2.5}	Fine Particles
PNR	Park and Ride Lot
SIP	State Implementation Plan
TAD	Transportation Analysis District
TAZ	Transportation Analysis Zone
TCM	Transportation Control Measure
TERM	Transportation Emission Reduction Measure
T/D	Tons Per Day
TIP	Transportation Improvement Program
TPB	Transportation Planning Board
US DOT	United States Department of Transportation
US EPA	United States Environmental Protection Agency
V/C	Volume to Capacity Ratio
VDOT	Virginia Department of Transportation
VDRPT	Virginia Department of Rail and Public Transportation
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
WMATA	Washington Metropolitan Area Transit Authority

TPB R1-2010
July 15, 2009

**NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
777 North Capitol Street, N.E.
Washington, D.C. 20002**

**RESOLUTION FINDING THAT THE 2009 CONSTRAINED LONG RANGE PLAN AND
THE TRANSPORTATION IMPROVEMENT PROGRAM FOR FY 2010-2015
CONFORM WITH THE REQUIREMENTS OF
THE CLEAN AIR ACT AMENDMENTS OF 1990**

WHEREAS, the National Capital Region Transportation Planning Board (TPB) has been designated by the Governors of Maryland and Virginia and the Mayor of the District of Columbia as the Metropolitan Planning Organization (MPO) for the Washington Metropolitan Area; and

WHEREAS, the U.S. Environmental Protection Agency (EPA), in conjunction with the U.S. Department of Transportation (DOT), under the Clean Air Act Amendments of 1990 (CAAA), issued on November 24, 1993 "Criteria and Procedures for Determining Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act," and, over the years, subsequently amended these regulations and provided additional guidance, which taken together provide the specific criteria for TPB to make a determination of conformity of its financially Constrained Long Range Transportation Plan (CLRP) and Transportation Improvement Program (TIP) with the state implementation plans for air quality attainment within the Metropolitan Washington non-attainment area; and

WHEREAS, a work program was developed to address all procedures and requirements, including public and interagency consultation, and the work program was released for public comment on January 15 and approved by the TPB at its February 18, 2009 meeting; and

WHEREAS, on February 18 and March 18, 2009, the TPB approved the major projects submitted for inclusion in the air quality conformity assessment for the 2009 CLRP and FY 2010-2015 TIP; and

WHEREAS, in each year's update of the CLRP between 2000 and 2004, the TPB has explicitly accounted for the funding uncertainties affecting the Metrorail system capacity and levels of service beyond 2005 by constraining transit ridership to or through the core area to 2005 levels; and

WHEREAS, as a result of the "Metro Matters" commitments for Metro's near-term funding, the transit ridership constraint to or through the core area was applied in the 2005 through

2008 CLRP conformity analysis using 2010 ridership levels rather than 2005 levels; and

WHEREAS, in October 2008 federal legislation was enacted to authorize \$150 million per year for 10 years in funding for WMATA's capital and preventive maintenance projects, and, the legislatures of Maryland, Virginia, and District of Columbia have taken steps to identify the required dedicated local matching revenues and this additional revenue was assumed to be available in the financial plan for the 2009 CLRP and the transit ridership constraint to or through the core area was applied in the 2009 CLRP conformity analysis using 2020 ridership levels for 2030; and

WHEREAS, on June 11, 2009, the draft Air Quality Conformity Determination of the 2009 CLRP and FY 2010-2015 TIP and web-based information were released for a 30-day public comment period and inter-agency review; and

WHEREAS, the analysis reported in *Air Quality Conformity Determination of the 2009 Constrained Long Range Plan and the FY 2010-2015 Transportation Improvement Program for the Washington Metropolitan Region*, dated July 15, 2009 demonstrates adherence to all mobile source emissions budgets for volatile organic compounds, nitrogen oxides, carbon monoxide and fine particle emissions (PM_{2.5}), and demonstrates that PM_{2.5} emissions meet the requirement that such emissions are not greater than 2002 levels, meets all regulatory, planning and interagency consultation requirements, and therefore provides the basis for a finding of conformity of the plan and program with the requirements of the CAAA; and

WHEREAS, in the attached letter of June 24, 2009, the Metropolitan Washington Air Quality Committee (MWAQC) has provided favorable comments on the *Air Quality Conformity Determination of the 2009 Constrained Long Range Plan and the FY 2010-2015 Transportation Improvement Program for the Washington Metropolitan Region*, and also continued to "strongly urge state and local governments to maintain their commitments to Transportation Emission Reduction Measures (TERMs) and other emission reduction measures to advance meeting the new ozone and particulate matter standards as soon as possible.";

NOW, THEREFORE, BE IT RESOLVED THAT THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD determines that the 2009 Constrained Long Range Plan and the Transportation Improvement Program for FY 2010-2015 conform with all requirements of the Clean Air Act Amendments of 1990.

Adopted by the Transportation Planning Board at its regular meeting on July 15, 2009

I. INTRODUCTION

The Washington region is currently designated nonattainment for the federal health standards for ozone and fine particles (PM_{2.5}). Clean air legislation in 1977 provided that a metropolitan planning organization may not approve any transportation project that did not conform to the approved state implementation plan (SIP) for the attainment of clean air standards. This established the responsibility on the part of COG/TPB to review transportation plans and programs and affirm that they conformed to air quality state implementation plans for the region.

This requirement means that TPB plans, programs and projects must be consistent with clean air objectives. In the 1990 Clean Air Act Amendments conformity to an implementation plan is defined as conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards and achieving expeditious attainment of such standards. In addition, Federal activities may not cause or contribute to new violations of air quality standards, exacerbate existing violations, or interfere with timely attainment or required interim emission reductions towards attainment.

II. CONFORMITY ASSESSMENT - REQUIREMENTS

A. BACKGROUND

On November 15, 1990 President Bush signed into law the Clean Air Act Amendments of 1990. This legislation specified dates by which clean air standards must be attained and required preparation of a plan identifying the measures to be employed and an implementation schedule for attainment. In the Washington region the ozone standard was to have been met by November 15, 1999.

The clean air act legislation also specified that revised conformity procedures be brought into use, including the "interim" period before revised air quality attainment plans were prepared. According to the law, conformity would be demonstrated if:

"(A) the transportation plans and programs - (i) are consistent with the most recent estimates of mobile source emissions; (ii) provide for the expeditious implementation of transportation control measures in the applicable implementation plan; and (iii) with respect to ozone and carbon monoxide nonattainment areas, contribute to annual emissions reductions..."; and "(B) the transportation projects - (i) come from a conforming transportation plan and program..."; and "(ii) in carbon monoxide nonattainment areas, eliminate or

reduce the severity and number of violations of the carbon monoxide standards in the area substantially affected by the project". In June 1991 US EPA and US DOT jointly issued the report, Guidance for Determining Conformity of Transportation Plans, Programs and Projects With Clean Air Act Implementation Plans During Phase I of the Interim Period, to provide guidance regarding the criteria and procedures to be followed by metropolitan planning organizations in making conformity determinations. The guidance indicated that "...conformity must now be based on detailed analysis of the potential impacts of transportation plans, programs, and projects on air quality", and provided procedures and definitions for conducting the analysis.

In Summer 1991, using the procedures contained in the guidance document, COG staff performed the first such "systems level" analysis, evaluating the FY92-96 Transportation Improvement Plan (TIP) and the regional long range plan. This analysis provided a general framework for subsequent TIP conformity evaluations.

For the assessment of the ozone season emissions reduction requirement for transportation plans and programs, the guidance document identified a comparison of emissions for future "build" versus "no-build" conditions. The resulting work tasks involved network simulations of regional travel demands and estimates of emissions for alternatives in three forecast years: 1996 - the end of the TIP period; 1999 - the attainment year in the region for ozone; and 2010 - the target year for the region's long range plan. In each case fewer volatile organic compound (VOC) emissions resulted with the "build" condition. Finding that the analysis provided a basis for determining conformity, on September 18, 1991 the TPB adopted the plan and program as conforming elements in support of the Clean Air Act Amendments of 1990 and the attainment of air quality standards for the Washington region.

Federal agencies provided additional guidance for subsequent analyses of the FY93-98 and FY94-99 TIPs. In an October 1991 joint release from DOT and EPA, the June 1991 guidance report was reaffirmed as the basis for conformity assessments. In July, 1992 Mr. Kevin Heanue, Director of FHWA's Office of Environment and Planning, sent a memo to Regional Administrators, which contained some additional guidance. The memo specified that in addition to the "build versus no-build" criterion, reductions from a 1990 base would also have to be demonstrated in order for a conformity finding to be made. Accordingly, staff incorporated this guidance into all subsequent evaluations of TPB plans and programs.

B. CONFORMITY REGULATIONS

Spring - Fall 1994 Experience

The November 24, 1993 *Federal Register* contained EPA's final rule (subsequently amended) on transportation conformity (Reference 1). This action established regulations governing procedures which FHWA, FTA and MPOs must carry out and specific requirements to which transportation plans, programs and projects must adhere. The regulations are comprehensive, covering definitions and specific technical, procedural, consultation and policy aspects of the analyses. Criteria and procedures to be employed are related to the area's standing with EPA in terms of its status in meeting state implementation plan requirements. Different tests apply depending on the time period and whether SIP revisions have been filed with EPA, which establish emissions budgets leading towards reasonable further progress and attainment of air quality standards.

The development of the FY95-2000 TIP and associated CLRP updates represented COG/TPB's first experience under the new regulations. That work established a basis of new procedures for meeting the new requirements, technical and consultative. Specifically, that year's conformity analysis, adopted by the TPB on September 21, 1994, met all of the technical requirements under the federal regulations.

On the consultation side, staff went through a lengthy process involving EPA and state and local air quality agencies to develop and execute transportation and air quality conformity consultation procedures. These procedures have been organized into a separate report, Transportation Planning Board Consultation Procedures with Respect to Transportation Conformity Regulations Governing TPB Plans and Programs (Reference 4). (These procedures were also adopted by the Board initially on September 21, 1994 and subsequently updated in response to EPA's August 15, 1997 amendments and formally adopted by the TPB on May 20, 1998.) Similarly, the consultation procedures executed as part of that conformity analysis also met all requirements under the federal conformity regulations.

Subsequent Experience

(1) Revisions to Technical Process

The regulations also established further technical requirements for conducting the travel demand forecasting and emissions analyses to be used to support conformity determinations. The applicability of these requirements would be phased in as of

January 1, 1995 for the Washington region, as an area in the "serious" ozone nonattainment category.

Staff undertook to address these requirements shortly after the regulations were published in November 1993. This involved significant transportation research activities, the most critical of which involved the development of a modeling capability to "recycle" congested system performance characteristics from the traffic assignment phase back to the trip distribution phase. Following months of staff work, under the policy and technical direction of the Travel Forecasting Subcommittee of the TPB Technical Committee, new procedures were adopted and used for the first time in production in the conformity analysis of the FY95-2000 TIP referenced above. These procedures have been incorporated into COG/TPB's regional travel demand forecasting processes and have also been used in all subsequent conformity assessments. The latest version of these procedures (referred to as the Version 2.2 model) is documented in the COG/TPB Travel Forecasting Model, Version 2.2, Specification, Validation, and User's Guide, (Reference 32) and meets all conformity regulations phased into applicability in the Washington region as of January 1, 1995.

(2) Revisions to Assessment Criteria

EPA's August 15, 1997 amendments to its conformity regulations enabled the transition to emissions budget tests, in lieu of the "action - baseline" emissions comparisons, following: (1) submission to EPA of a state implementation plan to establish appropriate mobile source emissions budgets for VOC and NOx and (2) review of the budgets and affirmative action by EPA to determine that the budgets were adequate for conformity purposes. These requirements were met initially with the October 23, 1997 submission by the District of Columbia, Maryland and Virginia air management agencies of MWAQC's Phase I Attainment Plan (Reference 7) to EPA and with EPA's subsequent review and adequacy determination of the budgets. These actions moved the Washington area away from "interim period" and "transitional period" conformity classifications and into a "control strategy" status. This enabled the air quality conformity assessment of the FY99-04 TIP to proceed through adherence to an emissions budget for each pollutant, rather than through use of the previous "action-baseline" emissions comparisons. While such budget adherence criteria were also utilized in that assessment, some significant updates in EPA's emissions budget "adequacy review procedures" also occurred, as described below.

(3) Impacts of March 1999 Court Decision

A March 2, 1999 court decision against EPA remanded several sections of the August 1997 conformity regulations to EPA for revision. Following this decision, EPA and

FHWA/FTA issued guidance (References 2 and 3) for use in the interim period until new regulations could be promulgated. One element of the guidance affected subsequent years' conformity assessments: the establishment of an adequacy review period of up to 90 days for mobile source emissions budgets contained in state air quality implementation plans submitted to EPA. This requirement affected EPA's review of MWAQC's Phase I Attainment Plan for ozone, which was submitted to EPA in May 1999 by the District of Columbia, Maryland and Virginia air management agencies. Following EPA's approval as being adequate for conformity purposes, new VOC and NO_x motor vehicle emissions budgets were used in the conformity assessment of the 1999 CLRP and FY2000-2005 TIP (Reference 15). Similarly, MWAQC's Phase II Attainment Plan (Reference 16) in Spring 2000 led to updated emissions budgets, which were used in air quality conformity analyses leading to amendments to the 1999 CLRP and FY2000-2005 TIP (Reference 17), as well as the 2000 CLRP and FY2001-2006 TIP (Reference 18).

(4) Impacts of July 2002 Court Decision

On July 2, 2002 the US Court of Appeals for the District of Columbia vacated the EPA's approval of the State Implementation Plans (SIPs) for the Washington region and recommended them to EPA for further consideration. The mobile emissions attainment budgets in those SIPs were also vacated. In a communication of July 15, 2002, (Reference 23) EPA stated that the mobile budgets then in place for the Washington region were the Rate of Progress (ROP) budgets. EPA also stated its intention to make the attainment budgets effective through a new adequacy finding, and recommended that the TPB demonstrate conformity to both the ROP budgets and the attainment budgets. As documented in Chapter 3 of that report (Reference 25), emissions for all milestone years associated with the 2002 CLRP and FY2003-2008 TIP adhered to both sets of budgets requirements.

(5) 'Severe Area SIP' with MOBILE6 Budgets

In January 2003 EPA reclassified the Washington, D.C., Maryland, Virginia ozone nonattainment area from 'serious' to 'severe'. In anticipation of this, MWAQC was in the process of executing a work program to meet Clean Air Act requirements for severe areas, to attain the health standards by November 15, 2005. Such requirements included: assessment of rate of progress towards attainment; analysis of reasonably available control measures; selection of and commitment to control strategies; demonstration of attainment; and contingency measures.

In January 2002 EPA released an updated version of its mobile emissions factor model, MOBILE6 (Reference 27), or more recently MOBILE6.2 (Reference 29). Since this new

model version offered significant improvements to the estimation of emissions rates, its use was incorporated into the analysis to develop the 'severe area SIP'. Inputs to the MOBILE6 model were developed through the formation of a joint TPB and MWAQC technical group, called the Mobile6 Task Force, and with consultant assistance to COG. Mobile source emissions inventories developed under this work program, for 1990, for rate of progress years, and for the 2005 attainment year, provided the basis for the mobile source component of that plan (referred to in this report as the 'severe area SIP' and included as Reference 28).

Following the completion of the planning and regulatory requirements, MWAQC adopted this plan on August 13, 2003 and the District of Columbia, Maryland and Virginia air management agencies submitted it to EPA. Of critical importance to this transportation conformity assessment is the specification in Chapter 9 of that plan of mobile source emissions budgets. The SIP sets VOC and NO_x emissions budgets of 98.1 and 237.4 tons per day, respectively. On December 16, 2003 these budgets were certified by the EPA as being 'adequate' for conformity. The 2003 CLRP and FY2004-2009 TIP were subsequently found to be in conformity through a demonstration of adherence to the budgets.

(6) FY 2005 Conformity Assessments

A. Final 1- Hour Ozone Assessment

In November 2004 the TPB approved the air quality conformity assessment of the 2004 CLRP and FY2005 - 2010 TIP. This analysis effort, documented in detail in Reference 31, contained significant refinements to both the travel demand forecasting and air quality analysis processes, implemented following an earlier review performed by the Transportation Research Board. As EPA also finalized nonattainment designations and conformity requirements for the 8-hour standards during this time period, revoking the 1-hour standard as of June 15, 2005, this represented the region's final 1-hour ozone conformity assessment.

B. Transition to 8-Hour Ozone Standard

On April 15, 2004 EPA designated the Washington, DC - MD - VA region as 'moderate' nonattainment for the 8-hour ozone standard. The geographic coverage for the 8-hour area is smaller than the long-standing 1-hour area, since Stafford County, VA was removed. Publication on July 1, 2004 of the final rule for transportation conformity provided conformity assessment criteria and specified a one year grace period for demonstrating conformity to the new standard. Staff then prepared an "8-Hour Ozone Standard Conformity Assessment Scope Of Work" as a supplement to the 1-hour ozone

assessment ongoing at that time. Included among EPA's conformity assessment criteria was use of existing 1-hour emissions budgets, since this work preceded SIP developmental work and creation of mobile source emissions budgets relevant to the 8-hour standard. The TPB approved this work scope in October 2004 and staff then executed the work tasks, which also included analyzing 2010 as the attainment year for the 8-hour ozone standard. Following public comment and interagency consultation, the Board adopted the final conformity assessment report in January 2004. FHWA and FTA approved both the 1-hour and 8-hour ozone assessments in June 2005.

In 2007 MWAQC developed an 8-hour ozone SIP (Reference 39) to reduce ozone-causing emissions of VOCs and NOx by at least 15 percent between 2002 and 2008, and to reduce all ozone precursor emissions to a level sufficient to attain the federal 8-hour standard by June 15, 2010. However, the region is required to demonstrate attainment of the standard by the end of the last ozone season before that date, which is September 2009. Therefore, the actual date for planning purposes is 2009.

As part of the 8-hour ozone SIP, MWAQC developed mobile budgets for VOC and NOx. As required by federal guidance, MWAQC established 2008 budgets to show "reasonable further progress" in addition to the 2009 and 2010 attainment year budgets. The 8-hour ozone SIP sets the following mobile budgets: 2008 VOC = 70.8 tons/day, 2008 NOX = 159.8 tons/day, 2009 VOC = 66.5 tons/day, 2009 NOX = 146.1 tons/day, 2010 VOC = 66.5 tons/day, and 2010 NOX 144.3 tons/day.

(7) Introduction of Fine Particles (PM_{2.5}) Standards

On December 17, 2004 the Environmental Protection Agency (EPA) designated 224 counties, as well as the District of Columbia, that exceeded the health-based standards for fine particles (PM_{2.5}) as nonattainment areas. PM_{2.5} standards refer to particulate matter less than or equal to 2.5 micrometers in diameter. The Washington, DC-MD-VA area (consisting of the Washington metropolitan statistical area, excluding Stafford County, Virginia, and Calvert County, Maryland) was designated nonattainment for PM_{2.5} (see Exhibit 2 for area), and is required to attain clean air as soon as possible but no later than 2010.

As published in the January 5, 2005 Federal Register, these PM_{2.5} nonattainment designations became effective on April 5, 2005. The new regulations affected transportation conformity planning requirements immediately: areas were given a 1 year grace period starting April 5, 2005 in which to demonstrate conformity of transportation plans and programs to the new standards. TPB staff conducted a conformity assessment for PM_{2.5} (Reference 35) in the Fall of 2005, which was adopted by the TPB on December 21, 2005. The assessment received federal approval prior to

the April, 2006 deadline.

By April 5, 2008 nonattainment areas were required to submit to EPA a SIP to define the expected methods for reducing the fine particulate matter level in the air and emissions of PM_{2.5} precursors. MWAQC adopted the Plan (Reference 41) on March 7, 2008 and submitted it to EPA prior to the April 5, 2008 deadline. As with other SIPs, MWAQC developed motor vehicle emissions budgets to be used as benchmarks as part of the conformity determination of the CLRP and TIP. The 2009 attainment year budgets are 1,105.4 tons/year and 52,052.9 tons/year for direct PM_{2.5} and precursor NO_x, respectively. The 2010 contingency budget, which is only set for precursor NO_x, is 51,395.9 tons/year.

C. REPORT ORGANIZATION

Chapter III of this report documents the technical methods utilized and results obtained in analyzing the 2009 CLRP and the FY2010-2015 TIP. Chapter IV documents the consultation procedures followed in the conformity assessment.

Chapter V presents the conformity assessment of the plan and program, responding to specific sections of the conformity regulations on a point by point basis and documenting adherence of the overall conformity work effort to the specific technical, policy and procedural requirements. Chapter VI presents findings of the analysis.

III. TECHNICAL METHODS

A. APPROACH

In developing the work program for this year's conformity assessment, contained as Appendix A of this report, staff identified latest planning assumptions and modeling techniques, and considered requirements of the conformity regulations, as well as requirements associated with, and comments received upon, past conformity analyses. Mobile emissions budgets set in both the 8-hour ozone SIP and the PM_{2.5} SIP have been submitted to EPA for approval, but have not yet been found adequate. Since it was possible that the budgets could be found adequate before the TPB was scheduled to act on the conformity assessment in July, it was necessary to assess the pollutant levels for each milestone year relative to the new budgets, as well as a comparison to the 2002 base.

Tasks included: preparation forecast years representing 2010, 2020, and 2030 for ozone season, PM_{2.5} precursors, and wintertime CO analysis; use of current land activity forecasts for the region (Round 7.2 Cooperative Forecasts- Reference 40); use of the refined Version 2.2 (Reference 32) travel demand modeling process which incorporates updated travel characteristics based upon travel survey and Highway Capacity Manual information; and use of a refined Mobile Emissions Post-Processor (Appendix E using latest travel demand and mobile emissions planning assumptions), and Mobile6.2. Staff conducted a parallel technical process to identify and analyze Transportation Emission Reduction Measures (TERMs) for ozone season pollutants, as well as for PM_{2.5} pollutants, under the oversight of the TPB Technical Committee and its Travel Management Subcommittee. This work is documented in Reference 13.

Staff drafted a work program for the analysis and presented it to regional technical and policy committees starting in January 2009. Staff also coordinated the draft work program with EPA, FHWA, FTA and the state and local air management agencies through the TPB consultation procedures. This scope was adopted by the TPB on February 18th 2009. Staff execution of the work activities is described in the following overview.

B. TECHNICAL WORK ACTIVITIES

Technical work activities for the 2009 CLRP and FY2010-2015 TIP included the preparation of: daily ozone season volatile organic compound (VOC) and nitrogen oxide (NO_x) emissions; yearly direct PM_{2.5} and PM_{2.5} precursor NO_x emissions; and daily wintertime carbon monoxide (CO) emissions inventories for specified years associated with the plan and program (base year 2002 and forecast years 2010, 2020, and 2030). These inventories address a primary conformity assessment criterion to demonstrate that the plan and program adhere to established mobile source emissions budgets for ozone season, PM_{2.5} and wintertime CO pollutants. The inventories also allow the baseline (2002) vs. action (forecast year) comparison required for the PM_{2.5} pollutants until the mobile budgets are found adequate.

The mobile source emissions estimation process utilized in this analysis involved the separate estimation of travel, vehicle and additional components. This structure is shown in Exhibit 1. While lengthy modeling procedures are involved to compute various travel components (number of trips, vehicle miles of travel, system performance, etc.) and rates of emissions (cold start emissions, tailpipe emissions, etc.) for each simulation, the calculation of mobile source emissions ultimately becomes a

EXHIBIT 1

Analysis Structure for On-Road Mobile Source Emissions

	<u>Transportation Component</u>	X	<u>Emission Factor</u>	=	<u>Emissions</u>
A. Network	1. Trip origins		Cold start rate (g/trip)		Startup
	2. VMT		Stabilized rate (g/mile)		Running
	3. Trip destinations		Hot soak (g/trip)		Hot soak
B. Off-Network	4. Number of vehicles (gasoline fueled)		Diurnal rate (g/day)		Diurnal evaporative
	5. Number of vehicles (gasoline fueled)		Resting loss (g/day)		Resting loss
	6. Auto access to transit		Travel components (above)		Startup, running, hot soak
	7. School & transit bus VMT		(HDDV) Stabilized rate (g/mile)		Running
	8. Local Road VMT		Stabilized Rate (g/mile)		Running

simple multiplication of a travel component by a rate of emissions associated with that component. As seen in the exhibit, the number of trip origins multiplied by a (gram/trip) cold start emissions rate yields an estimate of startup emissions. Vehicle miles of travel (VMT) multiplied by a (gram/mile) rate yields running emissions, and so on.

Exhibit 1 also illustrates the comprehensive scope of emissions contained in the mobile source inventory, addressing elements not directly available from current travel demand modeling procedures. This includes emissions associated with the number of vehicles in the region, "auto access" emissions and bus emissions. Exhibit 2 graphically defines the geographical analysis areas of the travel demand model (modeled area), the 1-hour ozone nonattainment area (1983 Metropolitan Statistical Area), the 8-hour ozone nonattainment area, the PM_{2.5} nonattainment area, and the wintertime CO nonattainment area.

Emissions impacts associated with Congestion Mitigation and Air Quality (CMAQ) projects were also analyzed, in an off-line basis primarily by the sponsoring agencies, as a requirement associated with their use. These projects, and other similar projects funded by categories other than CMAQ, are also specifically considered in the analysis for the emissions budget and emissions reductions tests. Exhibit 3 presents an overview of the network analysis work activities and shows their interrelationship. This schematic illustrates the major operations only. It is useful, however, in conveying an overview of the major steps of the emissions calculation process from a data processing vantage. The "post-processor" is the emissions calculation software in use at COG for conformity analyses and SIP planning. Spreadsheets 1 - 3 address calculations required in assessing vehicle, auto access, school bus, and transit bus emissions, respectively.

An overview of the major components relating to traditional COG/TPB systems level analyses is presented below. The discussion of the process is organized into the three main functional areas of: Travel Forecasts, Emission Rates, and Emissions Calculations.

EXHIBIT 2

Washington, D.C.- Maryland - Virginia Planning Areas

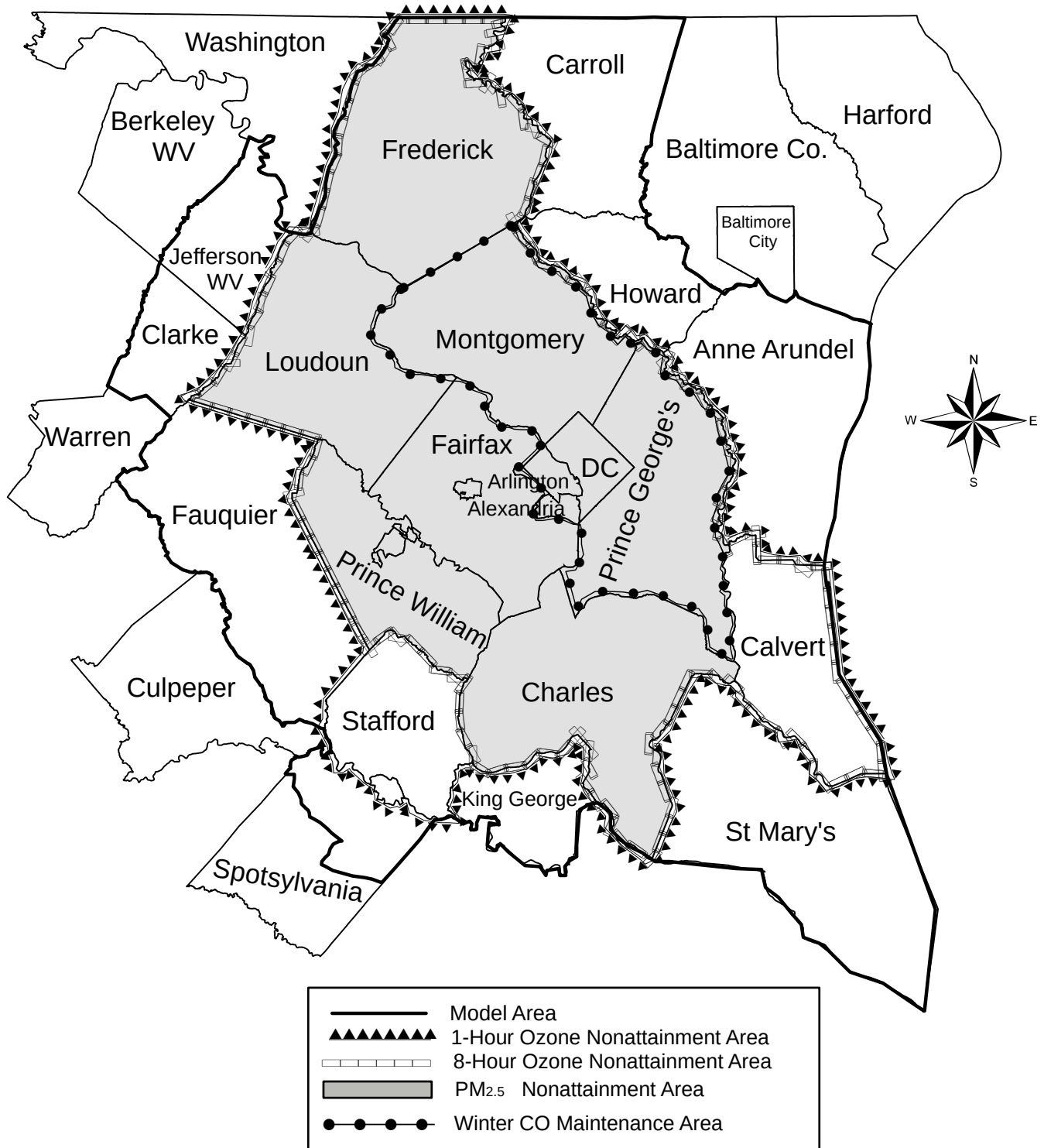
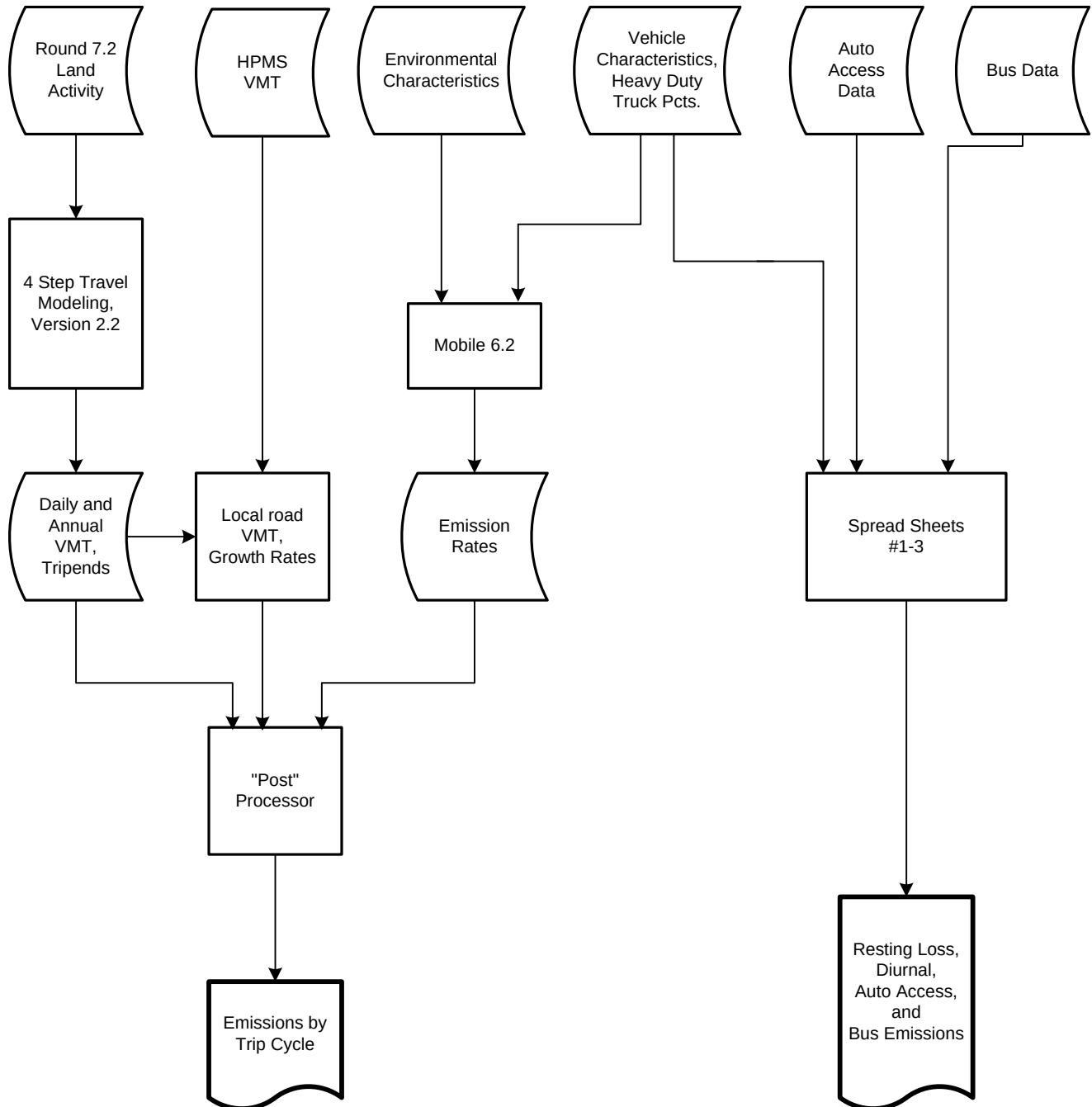


EXHIBIT 3

ON-ROAD MOBILE SOURCE EMISSIONS CALCULATIONS



C10EXH3.VSD

C. TRAVEL FORECASTS

As described above, the preparation of travel forecasts for each of the conformity alternatives was carried out using the Version 2.2 modeling process. As part of the technical methods originally employed in the 1999 CLRP / FY2000-2005 TIP amendments approved in July 2000, transit capacity constraint procedures, updated this year to constrain at 2020 levels, were applied to better relate transit forecast levels with transit carrying ability. These procedures are documented in Reference 17.

As in recent years' analyses, in addition to existing toll facilities the 2009 CLRP and the FY2010-2015 TIP includes the ICC in Maryland, and portions of the Virginia beltway and Shirley highway as managed facilities, with time-of-day tolls used to ensure that a high level of service is maintained throughout the day. References 30 and 32 document these procedures.

Ozone season and wintertime CO pollutants are reported for an average weekday (tons per day). However PM_{2.5} pollutants are reported using annual totals, which also requires the application of seasonal travel adjustment factors. Since seasonal travel totals have to include weekend travel as well as weekday travel, it was necessary to prepare adjustment factors to represent ADT occurring in each season of the year. The lower table in Exhibit 10 presents the seasonal adjustment factor necessary to develop ADT VMT for each season.

Network Development

Work on this task began in last winter with the request for project inputs to the 2009 CLRP and the FY2010-2015 TIP. All project submissions were reviewed and organized by DTP staff into transportation networks for appropriate forecast years, according to the project's completion date as estimated by the programming agency. The TPB approved the final project inputs at its March 18, 2009 meeting.

Summaries of key assumptions for each forecast year are contained as Exhibits 4 - 6. Exhibit 4 shows major transit elements. Exhibit 5 shows coded HOV & HOT improvements. Exhibit 6 presents mileage summaries for the highway system, according to LOV and HOV/HOT lane miles, and for the rail transit system.

These projects, summarized by state, agency, project characteristics and completion date are contained as Appendix B to this report. The list contains transit, highway, and HOV/HOT projects. Each project submission was reviewed and, where appropriate, coded into gravity model, modal choice and assignment networks. In many cases the project inputs could not be coded into a regional network since such projects did not

EXHIBIT 4**MAJOR TRANSIT IMPROVEMENTS FROM 2002 BASE**

	SERVICE	LIMIT
2010:		
	MARC	Frederick to Pt. of Rocks
	Metrorail	Addison Road to Largo
	Metrorail	NY Avenue Station
	Metrorail	Revised Operating Plan
	MARC	Extend evening/wk end service on Penn Line; mid-day on Camden/First phase of new MARC plan
	Streetcar	Anacostia Streetcar Phase 1 (Firth Sterling/S. Capitol St. to Howard Rd/MLK Jr. Ave.)
	Busway	Crystal City/Potomac Yards Busway (Glebe Road Extension to Crystal City Metro)
	Bus	Georgia Avenue Rapid Bus (Eastern Ave./Silver Spring Metro Station to Archives Navy Memorial Metro Station)
2020:		
		SAME AS 2010, PLUS
	Metrorail	Revised Operating Plan
	Metrorail	Dulles Corridor (East Falls Church to VA 772)
	MetroRail / Marc	Silver Spring Intermodal Transit Facility/Phase II
	Rail	Purple Line Transitway (Silver Spring to Bethesda)
	Streetcar	Columbia Pike Skyline Center to Pentagon City
	Corridor Cities Transitway	Shady Grove to Comsat
	VRE	Cherry Hill Commuter Rail Station
	VRE	Manassas & Fredericksburg lines Service Improvements

EXHIBIT 4**MAJOR TRANSIT IMPROVEMENTS FROM 2002 BASE**

	SERVICE	LIMIT
	Bus	Transit Development Plan (Fairfax Connector Service Enhancements)
	Bus	ICC Corridor Bus Improvements
	Bus	K - St. Busway (Mt. Vernon Sq. to Washington Circle)
	Bus	Pennsylvania Avenue Rapid Bus (Archives Navy Memorial Metro Station to Naylor Rd Metro Station)
	Busway	Potomac Yard Transit Bus Lanes (Four Mile Run to Braddock Road)
	Bus	New and Modified Service for Beltway HOT lanes-2020 level
	Bus	New and Modified Service for I-95/I-395 /HOT lanes-2020 level
2030		
		SAME AS 2020, PLUS
	Metrorail	Potomac Yards Station
	Bus	New and Modified Service for Beltway HOT lanes-2030 level
	Bus	New and Modified Service for I-95/I-395 /HOT lanes-2030 level

CODED HOV/HOT IMPROVEMENTS FROM 2002 BASE:

	FACILITY	IMPROVEMENT	LIMITS	DEFINITION
2010:				
	US 50	Construct	E. of US 301 / MD 3 to E. of I-95/I-495	2+
	I-66	Widen	VA 234 (Prince Wm. Parkway) to VA 234 Business (Sudley Road)	2+
	I-95 Wilson Bridge	Construct	US 1 (VA) to MD 210	2+
	I-66	Widen	US 29 (Gainesville) to VA 234 (Prince William Parkway)	2+
	Fairfax Co. Pkwy.	Construct	US 50 to VA 7735 (Fair Lakes Parkway)	2+
	Fran./Sprfld. Pkwy.	Construct	Ffx. County Pkwy. to Frontier Drive	3+
2020:				
			SAME AS 2010, PLUS	
	I-66	Widen	US 15 to US 29 (Gainesville)	3+
	I-95/I-395	Widen/Construct	Eads St to VA 610 in Stafford Co. (HOT lanes)	3+
	I-495	Construct	1mi.east of I-395/I-95 to S. of Old Dominion Dr. (HOT)	3+
	Fairfax Co. Pkwy.	Construct	VA 7735 (Fair Lakes Parkway) to I-66	3+
	Fairfax Co. Pkwy	Construct	VA 267 (Dulles Toll Rd) to US 50	3+
	Fairfax Co. Pkwy	Construct	VA 640 (Sydenstricker Rd) to Franconia/ Springfield Pkwy	3+
2030:				
			SAME AS 2020, PLUS	
	I-270	Const./Re-sign	Shady Grove Metro to I-70	3+
	I-495	Construct	American Legion Bridge to S. of Old Dominion Dr. (HOT)	3+

NOTE: All HOV facilities assumed HOV 3+ by 2020

EXHIBIT 6

RAIL AND ROAD MILES

(modeled area)

	LOV	HOV/HOT	METRORAIL	MD/DC*	VA**
	LANE MILES	LANE MILES	MILES	NON-METRO RAIL MILES	NON-METRO RAIL MILES
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
2002	19,203	187	103	116	95
2010	19,957	225	106	132	95
2020	21,628	344	131	149	100
2030	22,063	387	131	149	100

* Includes MARC, Bi-County Transitway, and Corridor Cities Transitway in Maryland, and Anacostia Street Car in the District of Columbia

** Includes VRE and Arlington Streetcar (Columbia Pike)

involve changes in capacity (e.g., transit operating assistance, highway rehabilitation, bridge reconstruction) or were too small to show up at the regional level (e.g., intersection improvements, improvements to a facility which is not contained in the regional networks).

The COG modeled area includes counties outside the MSA to enable better simulation results within the MSA. Project inputs from these outer counties are provided by their respective MPOs, state DOTs, or county DOTs, and are coded, when appropriate, into the highway and transit networks. While travel demand estimates include all counties in the modeled area, emissions estimates are only tabulated for the defined nonattainment area for each pollutant. As stated above, the modeled area, and the nonattainment areas for each pollutant analyzed, are shown in Exhibit 2.

Transportation/Land Use Interaction

In January 1994 a major milestone in the preparation of updated land activity forecasts for the Washington metropolitan area was achieved with the adoption by the COG Board of Round 5 Cooperative Forecasts. As was done with previous rounds, the Round 5 results contained control totals of households, population and jobs at the jurisdictional level, in five year increments through time to a horizon year of 2020. In order to assess the interaction between land activity and transportation system performance, the forecasts were adopted in draft form and work tasks were executed to assess the transportation system impacts of the new forecasts. Following the estimation of travel demands associated with the draft forecasts, members of the Planning Directors Committee and their Cooperative Forecast and Data Subcommittee revisited the draft Round 5.0 forecasts. Following their work of making updates where appropriate, a new round of forecasts, called Round 5.1, was prepared and adopted by the COG Board in May 1994. Similar processes involving Rounds 5 through 7.1 updates were executed for the analysis of subsequent plans and programs. On January 14, 2009 COG's Metropolitan Development Policy Committee released Round 7.2 forecasts for use in conformity testing of the proposed amendments to the 2009 CLRP and the FY2010-2015 TIP. Because the modeled area extends beyond the COG cooperative forecasting area, there is coordination with the surrounding jurisdictions to include the most recently approved land activity forecasts for the outer areas. For example, in this year's analysis, Baltimore Metropolitan Council's (BMC's) new forecasts, Round 7-A, were used.

Exhibit 7 presents Round 7.2 household data for each of the years in the conformity assessment; the table shows a 42% increase from year 2002 to the year 2030 throughout the MSA. Exhibit 8 presents similar data for the employment assumptions and shows a 44% increase over this period. The employment data reflect census adjustments (see Reference 33).

Trip Table Development

After coding the networks, staff proceeded with the trip generation and trip distribution steps within the travel forecasting process. The travel modeling process utilized in this work represents a trip generation and distribution model set based upon results obtained through analysis of the 1994 Household Travel Survey in model calibration, and subsequent model update and validation for year 2000 using U.S. Census Journey to Work data. Separate person trip tables were prepared for home based work and nonwork purposes (for input to the mode choice modeling process) and for all other travel, i.e., taxi, visitor/tourist, school and through trips. The work and nonwork person trip tables were input to the mode choice process, and the output vehicle trip tables from that process were subsequently merged with the other trip purposes for each forecast year and used in traffic assignment. Capacity restrained speeds which are output from the traffic assignment process were then fed back into trip distribution and iterations of the entire process occur until equilibrium travel time conditions are achieved throughout the modeling process. Summary mode choice results are shown in Exhibit 9. Summary results from the last iteration of the process, for all trip purposes, are shown in the upper table of Exhibit 10. This table shows vehicle trips in the region increasing by 40%, from 19.5 million in 2002 to 27.3 million in the year 2030. As mentioned above, the lower table in Exhibit 10 presents the seasonal adjustment factor necessary to convert AAWDT to ADT for each season, for use in emissions calculations.

EXHIBIT 7

HOUSEHOLD DATA

MSA:	2002	2010	2020	2030	2030/2002
D.C.	250354	275963	312611	334682	1.34
MONTGOMERY	334301	362768	408769	440829	1.32
PR.GEORGES	294712	316927	343598	366118	1.24
ARLINGTON	89027	99886	116059	120863	1.36
ALEXANDRIA	63670	70434	77234	86110	1.35
FAIRFAX	373414	402024	444927	479299	1.28
LOUDOUN	70935	101667	133828	155939	2.20
PR. WILLIAM	120194	157610	189677	214227	1.78
FREDERICK	73833	87708	104139	123125	1.67
CHARLES	43981	50951	64302	75850	1.72
STAFFORD	30404	41384	58997	72662	2.39
CALVERT	27229	32049	36026	38349	1.41
SUBTOTAL	1,772,054	1,999,371	2,290,167	2,508,053	1.42
ADDITIONAL COUNTIES:					
HOWARD	94673	109550	125466	132965	1.40
ANNE ARUNDEL	184180	202359	218039	229513	1.25
CARROLL	55263	63495	71163	77401	1.40
FREDERICKSBURG (VA)	8191	10003	12453	13955	1.70
JEFFERSON	17016	20427	25957	33075	1.94
N. SPOTSYLVANIA	25357	34702	48484	58733	2.32
FAUQUIER	21448	26872	35729	47506	2.21
CLARKE	5182	6142	6860	7770	1.50
K. GEORGE	6329	8392	11395	14005	2.21
ST. MARY'S	32406	38876	49350	58127	1.79
SUBTOTAL	450,045	520,818	604,896	673,050	1.50
TOTAL	2,222,099	2,520,189	2,895,063	3,181,103	1.43

SOURCE:
 MWCOG Revised Round 7.2 Cooperative Forecasts
 BMC Round 7-A Cooperative Forecasts

EXHIBIT 8 **EMPLOYMENT DATA**

MSA:	2002	2010	2020	2030	2030/2002
D.C.	746265	788162	859160	920576	1.23
MONTGOMERY	484992	510600	590662	670713	1.38
PR.GEORGES	341706	362286	398224	453423	1.33
ARLINGTON	187501	214501	259600	271715	1.45
ALEXANDRIA	95891	109109	136032	156831	1.64
FAIRFAX	624194	700872	800470	870584	1.39
LOUDOUN	106435	158819	227459	275196	2.59
PR. WILLIAM	127881	152264	197682	243725	1.91
FREDERICK	106647	142412	158278	167257	1.57
CHARLES	48569	62239	71749	77550	1.60
STAFFORD	33200	43197	55065	65638	1.98
CALVERT	26639	35157	44438	47137	1.77
SUBTOTAL	2,929,920	3,279,618	3,798,819	4,220,345	1.44
ADDITIONAL COUNTIES:					
HOWARD	140774	165822	195195	219747	1.56
ANNE ARUNDEL	260717	291592	342525	379142	1.45
CARROLL	57372	67603	70821	72451	1.26
FREDERICKSBURG (VA)	24171	29430	35467	41767	1.73
JEFFERSON	17008	21058	26113	30674	1.80
N. SPOTSYLVANIA	29614	35362	46607	55567	1.88
FAUQUIER	22320	27325	35767	43367	1.94
CLARKE	6079	6793	7685	8552	1.41
K. GEORGE	9334	9032	13118	16343	1.75
ST. MARY'S	49629	59191	67275	71972	1.45
SUBTOTAL	617,018	713,208	840,573	939,582	1.52
TOTAL	3,546,938	3,992,826	4,639,392	5,159,927	1.45

SOURCE:

MWCOG Revised Round 7.2 Cooperative Forecasts
BMC Round 7-A Cooperative Forecasts

NOTE: Includes Census Adjustment

EXHIBIT 9A

**2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY
DAILY REGIONAL HOME BASED WORK PURPOSE MODE ANALYSIS BY YEAR
(Based on Mode Choice Output- 6th Iteration)**

YEAR	HBW MOTORIZED PERSON	TOTAL HBW AUTO PSN	HBW LOV AUTO DRV	HBW HOV AUTO DRV	TOTAL HBW AUTO DRV	HBW CAROCC	HBW TRANSIT	HBW TRANSIT (%)
2002	4,199,210	3,609,023	3,194,248	23,010	3,217,258	1.120	590,187	14.10%
2010	4,749,405	4,107,090	3,627,821	31,412	3,659,233	1.120	642,315	13.50%
2020	5,414,212	4,622,225	4,048,985	40,530	4,089,515	1.130	791,987	14.60%
2030	5,928,651	5,069,845	4,433,735	47,607	4,481,342	1.130	858,806	14.50%

EXHIBIT 9B

**2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY
DAILY REGIONAL ANALYSIS BY YEAR FOR ALL TRIP PURPOSES
(Based on Mode Choice Output- 6th Iteration)**

YEAR	TOTAL MOTORIZED PERSON	TOTAL AUTO PSN	LOV AUTO DRV	HOV AUTO DRV	TOTAL AUTO DRV	TOTAL CAROCC	TOTAL TRANSIT	TRANSIT (%)
2002	22,893,277	21,837,557	17,181,148	23,010	17,204,158	1.270	1,055,720	4.60%
2010	25,750,193	24,588,246	19,420,835	31,412	19,452,247	1.260	1,161,947	4.50%
2020	29,121,532	27,603,170	21,831,369	40,530	21,871,899	1.260	1,518,362	5.20%
2030	31,770,219	30,118,269	23,891,829	47,607	23,939,435	1.260	1,651,950	5.20%

*Note: Starting in 2020, all HOV facilities are HOV3+

EXHIBIT 10

**2009 CLRP / FY2010-2015 TIP CLRP AIR QUALITY CONFORMITY
 MODELED AREA TRIPS AND VEHICLE MILES TRAVELED (000's)
 AVERAGE WEEKDAY TRAFFIC (AWDT)
 (Based on Final Iteration)**

	WORK AND NON-WORK AUTO DRV	TRUCKS (Med + Hvy)	MISC + THRU TRIPS	COMMERCIAL VEHICLES	TOTAL VEH. TRIPS	TOTAL VMT
YEAR						
2002	17,204,769	471,602	725,872	1,133,484	19,535,727	145,504,947
2010	19,452,885	532,991	842,583	1,264,217	22,092,676	160,913,391
2020	21,872,641	617,938	972,033	1,444,248	24,906,860	182,831,773
2030	23,940,078	688,041	1,076,606	1,582,383	27,287,108	197,574,487

Adjustment Factors to Convert AAWDT to Appropriate Season:

Ozone Season AWDT: 1.05

Winter Season AWDT: 0.97

PM2.5 Annual:

Season (ADT)	Factor
Season 1 (Jan- Apr)	0.9216
Season 2 (May- Sept)	0.9873
Season 3 (Oct- Dec)	0.9282

NOTE: AWDT reflects a five day average
 ADT reflects a seven day average

Modal Choice

Transit networks were coded for all forecast years and mode choice analyses were executed based upon specific transit representations for 2010, 2020 and 2030. Transit capacity constraint procedures, in which 2020 constrains later years (Reference 17), were executed for the 2030 forecast year.

As stated above, Exhibit 9 presents a summary of the results of the mode choice analysis. Part A summarizes home based work purpose trips and Part B summarizes all trip purposes. The table, similarly, shows slightly over a 56% increase in transit travel from 2002 to the year 2030.

Traffic Assignment

Following the preparation of total vehicle travel demands, the resulting table was applied in traffic assignment to estimate vehicle loadings on each facility in the region. After multiple iterations of the process using the speed feedback procedures, this concluded the traditional travel forecasting elements of the conformity analysis. VMT summaries for each alternative are contained in Exhibit 10. Exhibit 11 shows percentage changes in vehicle miles traveled (VMT) through time compared with percentage changes in households and jobs.

A level of service analysis was not among the objectives of this work, however, aggregate summaries of volume to capacity (V/C) ratios (using level "E" service volumes) for the p.m. peak hour were prepared and are presented as Exhibit 12. The figure shows on a percentage basis the extent to which levels of congestion increase through time.

D. EMISSION RATES

In prior work as part of the conformity assessment of the 2007 CLRP and FY2008-2013 TIP COG / DTP staff, in conjunction with COG's Department of Environmental Programs staff and with consultant assistance of E.H. Pechan and Associates, developed mobile source emission factors for PM_{2.5} pollutants, wintertime CO, and ozone precursors. These factors represented the rates of volatile organic compounds, carbon monoxide, direct particles, and nitrogen oxides produced by cars and trucks on the highway system. This work involved the application of EPA's MOBILE6.2 model, using vehicular and other characteristics specific to the Washington region, to develop factors which would be applied to the travel estimates associated with each forecast year. The model estimates the pollution rates based upon a variety of different vehicle characteristics (vehicle age, type, weight, fuel, speed, inspection/maintenance program) and environmental characteristics (ambient temperature, humidity).

EXHIBIT 11

DAILY VMT vs CHANGES IN LAND ACTIVITY

(Modeled Area)

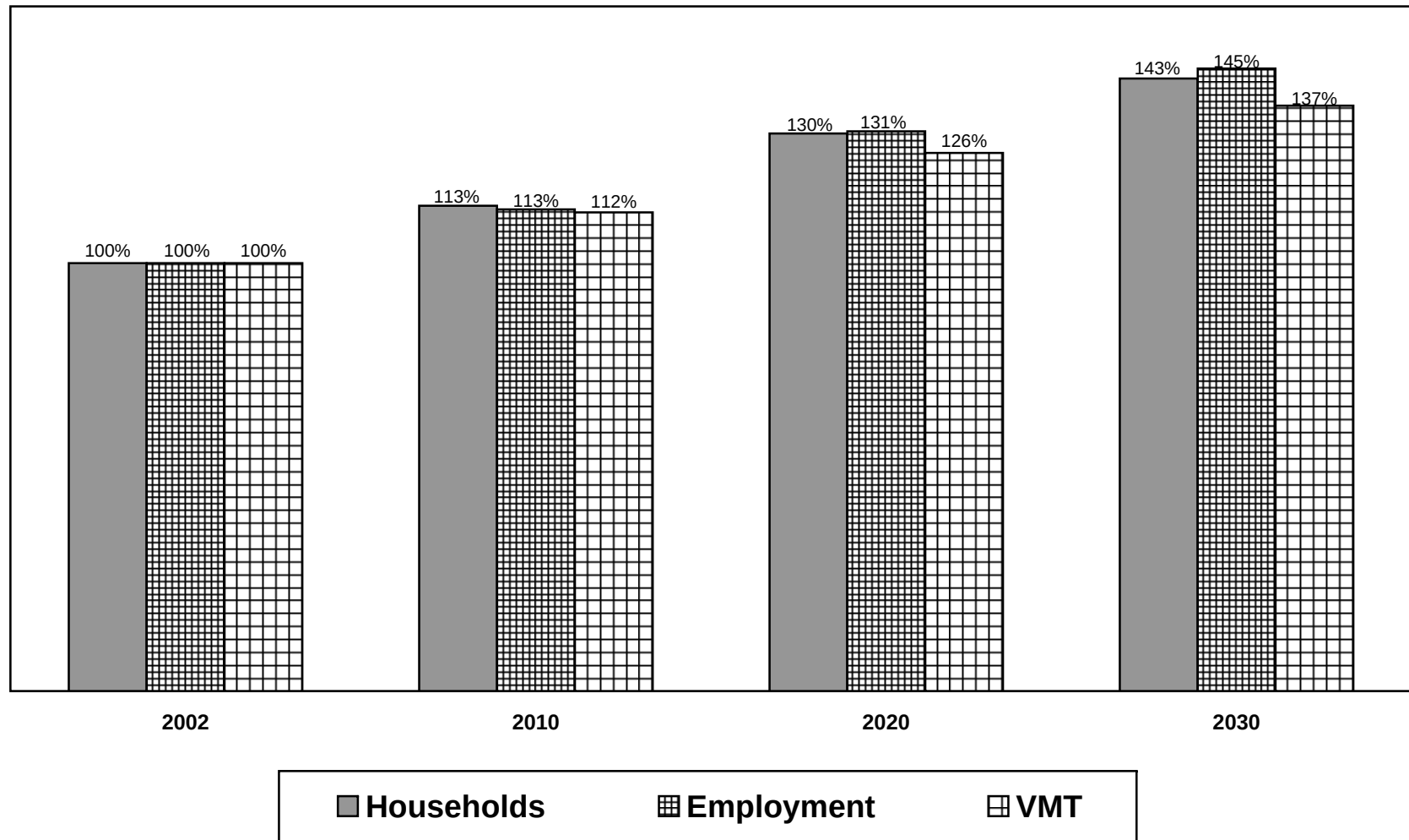
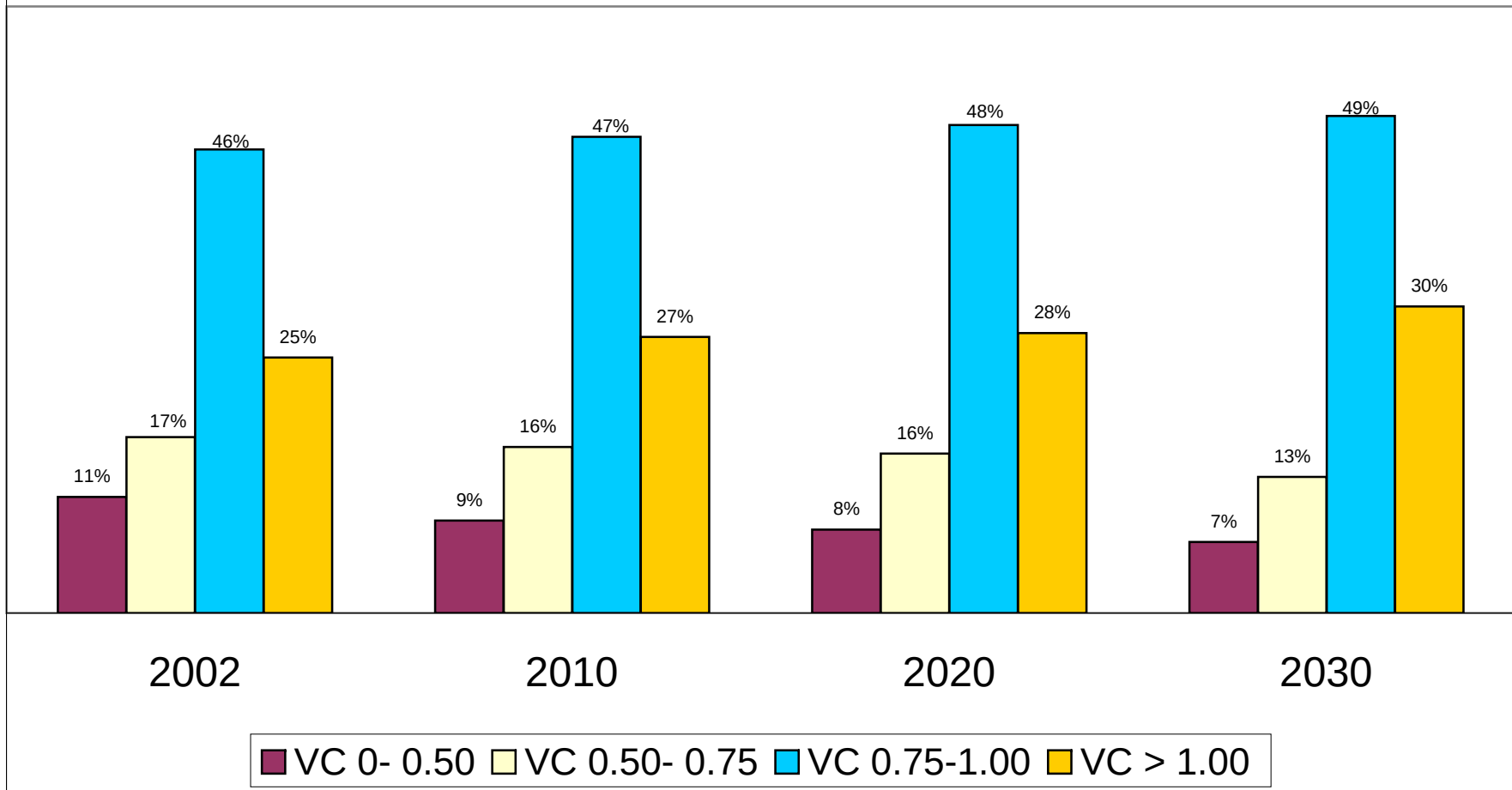


EXHIBIT 12
OZONE SEASON P.M. PEAK HOUR VMT BY YEAR
AND VC RATIO (Level "E" Service Volumes)
(Modeled Area)



This year's factors were updated to reflect the new 2008 vehicle registration data, which were developed using VIN decoder software. The 2008 registration data show an increase in the number of hybrid vehicles and a decrease in the rate of SUV purchases. Both trends tend to reduce emissions. However, the data also show that fewer new vehicles are being purchased, which results in an aging of the region's vehicle fleet. The older fleet increases emissions, and has a greater impact than the trends reducing emissions, thus resulting in an overall increase in emission factors. The emission factors also include the use of the Maryland Department of the Environment's (MDE) data reflecting the adoption of Phase I of California's Low-Emission Vehicle II (LEV II) program in Maryland. These data include the reduction in ozone season pollutants expected from the adoption of this program.

The rates for each pollutant, shown using Fairfax County data as an illustration in Exhibits 13 and 14 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. Exhibit 15 presents direct PM_{2.5} emissions rates through time, by season; data are arrayed in a bar chart since these emissions rates do not vary by vehicle speed.

The mobile emissions post processor, which is a series of programs that uses travel demand and emission rates to calculate mobile source emissions estimates, was revised to reflect the Version 2.2 model table lookup speeds and capacities, and speed flow relationship. The post processor now better reflects speeds observed in travel time studies within the region.

Appendix D documents the input assumptions and Appendix E documents the emission factor results of this work.

E. EMISSIONS CALCULATIONS

While travel demand forecasts are prepared for the modeled area, emissions summaries are calculated for each pollutant's specified nonattainment area (or maintenance area, in the case of winter CO). Each of these planning areas is shown in Exhibit 2.

Exhibit 13
2002-2030 VOC COMPOSITE MOBILE6.2 ARTERIAL RUNNING EMISSION
RATES FOR FAIRFAX COUNTY

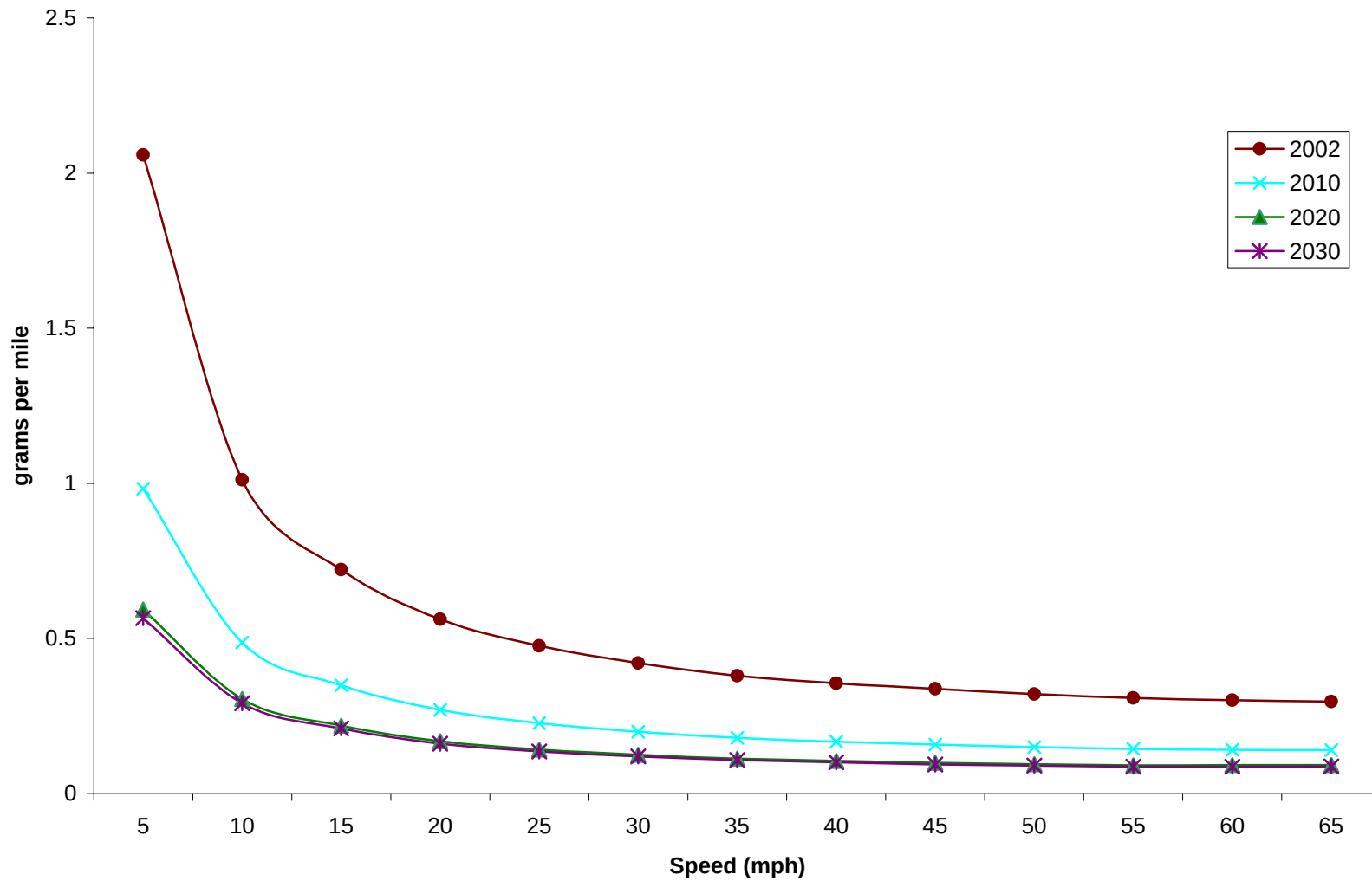


Exhibit 14
2002-2030 NOx COMPOSITE MOBILE6.2 ARTERIAL RUNNING EMISSION
RATES FOR FAIRFAX COUNTY

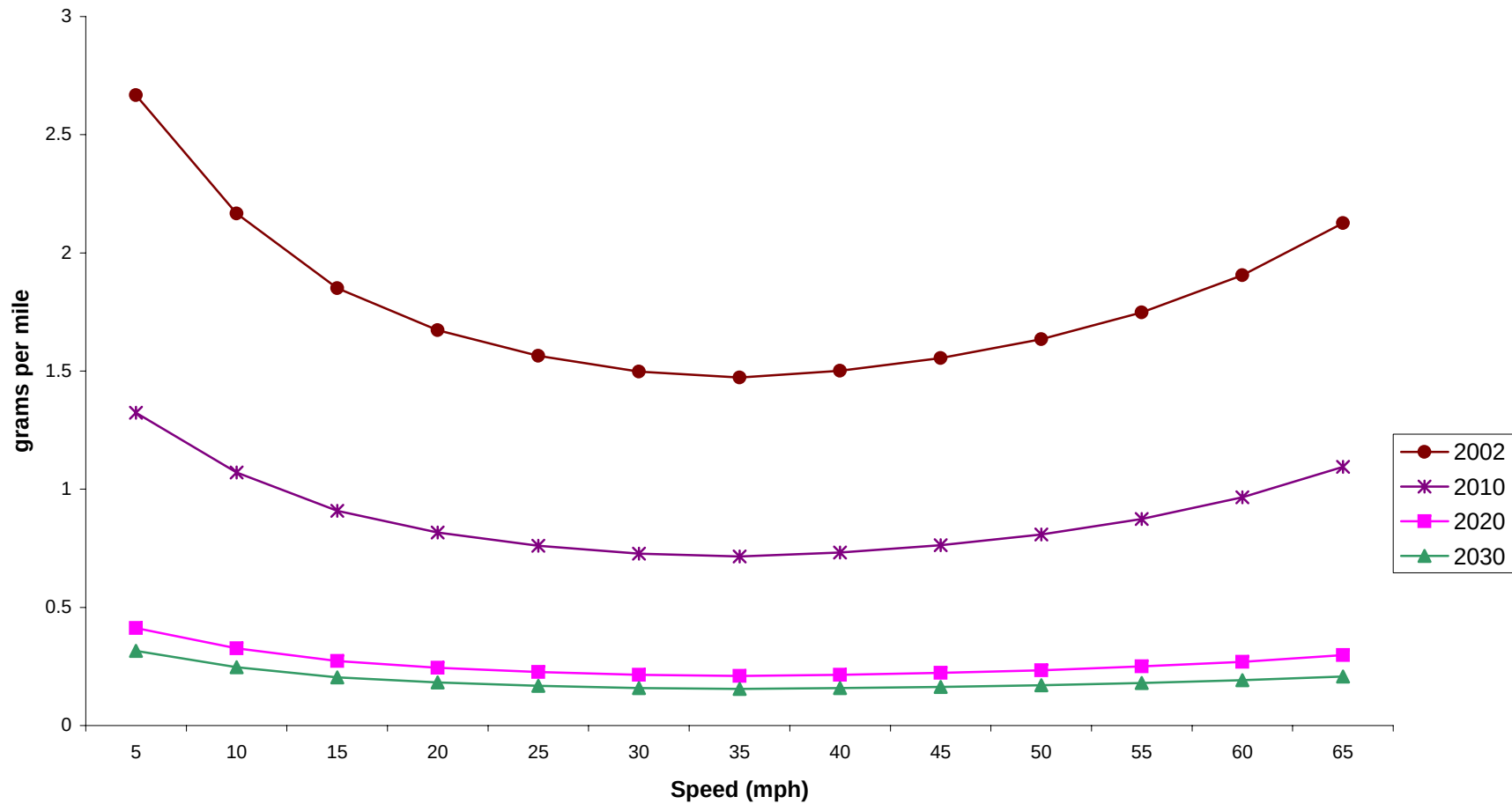
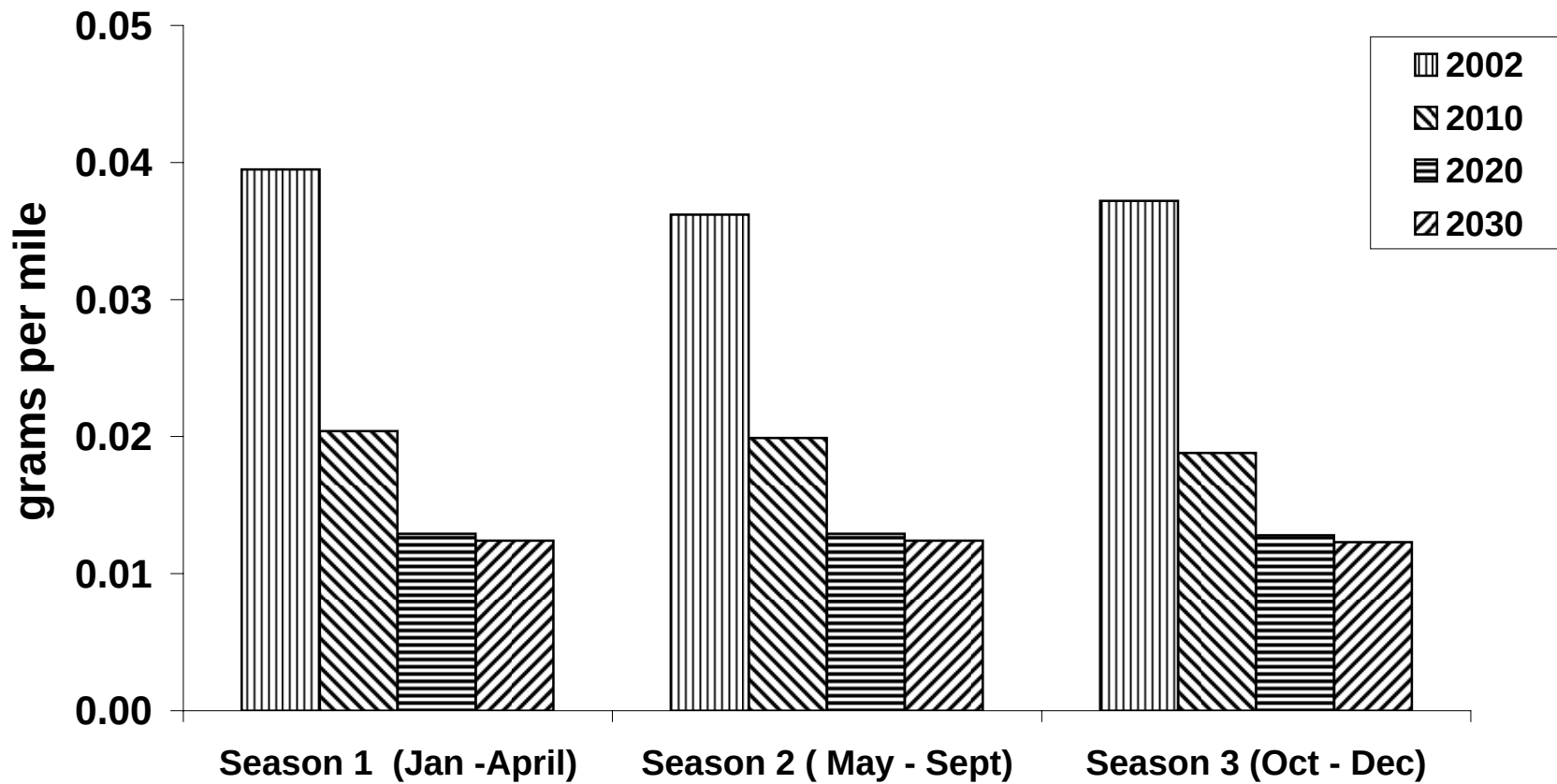


Exhibit 15
DIRECT PM_{2.5} EMISSION RATES FOR FAIRFAX COUNTY
(MAJOR ROADS NETWORK)



Two types of calculations are made for each pollutant. The first involves applying emissions rates directly to the travel demand results, to yield origin, network running, and destination emissions. The second deals with preparing estimates of emissions associated with diurnals, resting losses, auto access to transit, and buses. These are addressed on an off-line basis since they are not directly derived from the TPB travel demand modeling process. The technical methods associated with performing these off-line assessments are contained in Appendices F to H. Exhibit 3 provides an overview of the analysis structure and emissions calculation process and also identifies where each calculation takes place.

Each pollutant is assessed based on varying criteria. Ozone season pollutants must adhere to EPA approved totals from the Metropolitan Washington Air Quality Committee's (MWAQC's), February, 2004 'severe area' (1-hour ozone) State Implementation Plan (SIP). These budgets received federal approval in Spring, 2005. This analysis also addressed the emissions budgets contained in the 8-hour ozone SIP and the PM_{2.5} SIP, which await EPA's signoff. Where there are no approved mobile budgets for PM_{2.5} pollutants, EPA allows for an assessment that shows emissions in "action" scenarios are no greater than those in a 2002 base. This criterion was established and applied, with the concurrence of MWAQC, in all PM_{2.5} conformity assessments done to date. The region is in maintenance for mobile source wintertime CO and is required to show that pollutant levels do not exceed the approved budget.

Mobile Emissions Inventories

Prior to calculation of daily mobile source emissions, the above (AAWDT) travel 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 appropriate Mobile6.2 emissions factors to the travel demand forecasts to prepare mobile source emissions inventories for each forecast year. Exhibit 16 shows, for purposes of illustration, emissions for each jurisdiction in the 1-hour ozone nonattainment area. The categories of emissions also include the additional elements of: running emissions on local streets, and vehicle related emissions for diurnals and resting loss; and regional estimates of auto access emissions, and bus emissions.

Exhibit 16**Eight-Hour Ozone Area**

2009 CLRP and FY 2010-2015 TIP
DAILY MOBILE SOURCE EMISSIONS
BY JURISDICTION AND TRIP CYCLE

Year: 2010

VOC TONS PER DAY

JURIS	ORIGIN	RUNNING		DESTINATION	VEHICLE RELATED EMISSIONS		TOTAL CYCLE
		NETWORK	LOCAL		DIURNAL	REST. LOSS	
District of Columbia	1.16	2.97	0.74	1.05	0.12	0.57	6.61
Montgomery	2.10	5.41	0.66	1.77	0.31	1.41	11.67
Prince George's	1.82	5.90	0.77	1.67	0.32	1.58	12.07
Calvert	0.23	0.37	0.10	0.21	0.05	0.25	1.21
Charles	0.37	0.71	0.13	0.35	0.07	0.36	1.99
Frederick	0.63	2.18	0.30	0.58	0.12	0.58	4.39
Arlington	0.59	1.23	0.20	0.50	0.06	0.29	2.86
Fairfax	2.43	6.55	0.81	1.99	0.35	1.68	13.80
Loudoun	0.60	1.39	0.22	0.47	0.10	0.47	3.25
Pr.William	0.91	2.20	0.37	0.78	0.15	0.73	5.13
City of Alexandria	0.31	0.63	0.09	0.26	0.05	0.23	1.57
Sub Total	11.15	29.54	4.39	9.63	1.69	8.15	64.55
AUTO ACCESS							0.75
TRANSIT BUS							0.19
SCHOOL BUS							0.35
TOTAL EMISSIONS							65.85

The emissions results for ozone season pollutants are summarized in Exhibits 17A and B for both 1-hour and 8-hour ozone geographic areas. These charts contain VOC and NO_x emissions for network and off-network components for each analysis year, and also compare totals against emissions budgets where relevant. The table shows dramatic reductions between 2002 and 2020, and further reductions thereafter with emissions falling below 40 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. Both VOC and NO_x emissions are within the mobile budgets for all forecast years.

To develop the yearly total PM_{2.5} emissions, travel and emissions were estimated throughout the year by applying (three) seasonal factors to the primary travel data, followed by applying emissions rates for each of the seasons, and summarizing to obtain yearly totals. Direct PM_{2.5} and precursor NO_x emissions are shown in Exhibits 18 and 19 and exhibit similar dramatic reductions through time despite the steady increases in vehicle trips and VMT in the forecast years. 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 / truck engines with much cleaner ones.

Wintertime CO emissions are shown in Exhibit 20. These same general trends through time of dramatic emissions reductions are also seen here; levels are easily within the CO emissions budget level.

EXHIBIT 17A

AIR QUALITY CONFORMITY
Summary Table - 1-Hour Ozone Nonattainment Area
Mobile Source Emissions Inventories
for 2009 CLRP and FY 2010-2015 TIP
(Tons/Day)

	2002		2010		2020		2030	
	VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx
I Network								
Start	25.54	12.93	11.42	6.72	6.99	2.94	6.50	2.28
Running	58.92	230.89	30.42	120.05	20.38	38.99	20.81	28.78
Soak	11.57	-----	9.87	-----	5.56	-----	4.48	-----
II Off-Network								
Diurnal	2.42	-----	1.75	-----	0.96	-----	0.65	-----
Resting Loss	12.28	-----	8.48	-----	3.82	-----	2.55	-----
Local Roads	8.93	10.63	4.48	6.04	2.94	2.38	2.97	2.05
School Buses	0.43	6.09	0.35	4.50	0.22	1.72	0.17	0.50
Transit Buses	0.38	6.59	0.19	4.18	0.13	1.04	0.13	0.37
Auto Access	1.34	1.54	0.78	0.95	0.53	0.49	0.54	0.44
Total	121.80	268.68	67.75	142.45	41.54	47.55	38.80	34.41

TCMs	-0.36	-0.078	-0.18	-0.42	-0.13	-0.28	-0.13	-0.27
Net Emissions	121.44	268.60	67.57	142.03	41.41	47.27	38.67	34.14

Mobile
Emissions

Budgets:			97.40	234.70	97.40	234.70	97.40	234.70
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Budget
Adherence

Margin:			29.83	92.67	55.99	187.43	58.73	200.559
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NOTE: This table was updated to reflect minor technical corrections after the July 15, 2009 publication date. The corrections do not affect the conformity finding.

EXHIBIT 17B

AIR QUALITY CONFORMITY
Summary Table - 8-Hour Ozone Nonattainment Area
Mobile Source Emissions Inventories
for 2009 CLRP and FY 2010-2015 TIP
(Tons/Day)

	2002		2010		2020		2030	
	VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx
I Network								
Start	24.99	12.69	11.15	6.58	6.78	2.85	6.28	2.20
Running	57.15	222.56	29.54	116.00	19.67	37.40	20.04	27.52
Soak	11.33	-----	9.63	-----	5.40	-----	4.34	-----
II Off-Network								
Diurnal	2.36	-----	1.69	-----	0.93	-----	0.63	-----
Resting Loss	11.93	-----	8.15	-----	3.66	-----	2.44	-----
Local Roads	8.75	10.38	4.39	5.91	2.88	2.31	2.90	1.99
School Buses	0.42	5.97	0.35	4.41	0.22	1.68	0.17	0.49
Transit Buses	0.38	6.51	0.19	4.13	0.13	1.03	0.13	0.36
Auto Access	1.29	1.49	0.75	0.91	0.51	0.44	0.49	0.39
Total	118.61	259.61	65.85	137.95	40.17	45.72	37.42	32.95

TCMs	-0.36	-0.078	-0.18	-0.42	-0.13	-0.28	-0.13	-0.27
Net Emissions	118.25	259.53	65.67	137.53	40.04	45.44	37.29	32.68

Mobile Emissions Budgets:			66.50	144.30	66.50	144.30	66.50	144.30
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Budget Adherence Margin:			0.83	6.77	26.46	98.86	29.21	111.623
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NOTE: This table was updated to reflect minor technical corrections after the July 15, 2009 publication date. The corrections do not affect the conformity finding.

EXHIBIT 18

AIR QUALITY CONFORMITY SUMMARY TABLE

Direct PM_{2.5} Emissions

Mobile Source Emissions Inventories

for 2009 CLRP and FY 2010-2015 TIP

(Tons)

SEASON 1 (JAN-APR)		Days	Direct PM _{2.5}							
			2002		2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
	Major Roads	120	4.09	490.56	2.45	293.88	1.72	206.88	1.75	209.76
	Local Roads	120	0.19	23.28	0.14	16.32	0.13	15.60	0.14	16.56
	School Buses	76	0.33	24.98	0.27	20.19	0.03	2.16	0.02	1.29
	Transit Buses	120	0.25	30.55	0.09	10.21	0.01	1.57	0.01	1.17
	Auto Access	83	0.01	1.01	0.01	0.89	0.01	1.15	0.02	1.26
	Total (Daily)		4.87		2.95		1.91		1.93	
	SEASON TOTAL			570.38		341.49		227.36		230.05

SEASON 2 (MAY-SEP)		Days	Direct PM _{2.5}							
			2002		2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
	Major Roads	153	4.05	619.80	2.55	389.69	1.84	281.67	1.87	286.26
	Local Roads	153	0.19	28.61	0.15	22.34	0.14	21.57	0.15	22.80
	School Buses	83	0.32	26.20	0.24	20.16	0.03	2.26	0.02	1.39
	Transit Buses	153	0.25	37.71	0.08	12.09	0.01	1.96	0.01	1.49
	Auto Access	107	0.01	1.22	0.01	1.22	0.01	1.58	0.02	1.74
	Total (Daily)		4.82		3.03		2.04		2.06	
	SEASON TOTAL			713.54		445.50		309.04		313.68

SEASON 3 (OCT-DEC)		Days	Direct PM _{2.5}							
			2002		2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
	Major Roads	92	3.88	355.67	2.29	211.05	1.72	158.15	1.74	160.08
	Local Roads	92	0.20	17.30	0.13	12.24	0.13	12.05	0.14	12.70
	School Buses	55	0.27	14.78	0.23	12.48	0.03	1.49	0.01	0.74
	Transit Buses	92	0.22	20.24	0.08	6.96	0.01	1.16	0.01	0.84
	Auto Access	61	0.01	0.64	0.01	0.65	0.01	0.85	0.02	0.93
	Total (Daily)		4.58		2.74		1.91		1.92	
	SEASON TOTAL			408.63		243.37		173.70		175.29

ANNUAL TOTAL			1,692.55		1,030.36		710.10		719.02
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Mobile Emissions Budgets: 1105.4

Budget Adherence Margin: 75.04

NOTE: This table was updated to reflect minor technical corrections after the July 15, 2009 publication date. The corrections do not affect the conformity finding.

EXHIBIT 19
AIR QUALITY CONFORMITY SUMMARY TABLE
PM_{2.5} Precursor Emissions: NOx
Mobile Source Emissions Inventories
for 2009 CLRP and FY 2010-2015 TIP
(Tons)

SEASON 1 (JAN-APR)		Days	Precursor NOx							
			2002		2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
	Major Roads-Starts	120	20.99	2518.80	10.12	1214.16	4.17	499.92	3.18	382.08
	Major Roads-VMT	120	252.32	30,278.28	122.16	14659.44	38.58	4629.12	28.27	3392.04
	Local Roads	120	12.89	1547.16	6.42	770.40	2.33	279.60	1.94	232.80
	School Buses	76	4.86	369.43	3.88	294.56	1.46	111.31	0.41	31.24
	Transit Buses	120	6.04	724.74	4.07	488.27	1.01	121.76	0.34	40.95
	Auto Access	83	2.09	173.69	1.18	97.61	0.33	27.74	0.30	24.74
	Total (Daily)		299.19		147.82		47.89		34.44	
	SEASON 1 TOTAL			35,612.10		17,524.44		5,669.45		4,103.86

SEASON 2 (MAY-SEP)		Days	Precursor NOx							
			2002		2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
	Major Roads-Starts	153	13.83	2115.84	7.21	1103.13	3.06	468.69	2.39	365.82
	Major Roads-VMT	153	217.60	33293.11	107.78	16490.80	34.48	5276.05	25.23	3859.58
	Local Roads	153	10.20	1560.60	5.27	806.00	2.03	309.98	1.72	263.77
	School Buses	83	4.81	399.47	3.56	295.18	1.36	112.49	0.39	32.70
	Transit Buses	153	5.99	915.81	3.80	581.36	0.95	145.43	0.34	51.27
	Auto Access	107	1.48	158.44	0.88	94.48	0.27	28.70	0.24	26.03
	Total (Daily)		253.91		128.50		42.15		30.31	
	SEASON 2 TOTAL			38,443.26		19,370.95		6,341.33		4,599.17

SEASON 3 (OCT-DEC)		Days	Precursor NOx							
			2002		2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal	Daily	seasonal
	Major Roads-Starts	92	19.48	1792.34	8.78	807.39	3.80	349.42	3.00	276.37
	Major Roads-VMT	92	237.27	21828.38	104.19	9585.11	35.28	3245.85	26.93	2477.28
	Local Roads	92	12.21	1123.32	5.47	502.87	2.14	196.70	1.85	170.38
	School Buses	55	4.77	262.16	3.51	193.19	1.31	72.07	0.31	17.04
	Transit Buses	92	5.78	531.39	3.67	337.71	0.84	77.42	0.29	26.98
	Auto Access	61	1.97	120.37	1.00	60.91	0.31	18.79	0.29	17.39
	Total (Daily)		281.48		126.61		43.68		32.67	
	SEASON 3 TOTAL			25,657.96		11,487.19		3,960.25		2,985.45

ANNUAL TOTAL			99,713.33		48,382.59		15,971.02		11,688.47
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Mobile Emissions Budget: 51,359.90

Budget Adherence Margin: 2,977.31

NOTE: This table was updated to reflect minor technical corrections after the July 15, 2009 publication date. The corrections do not affect the conformity finding.

EXHIBIT 20
Summary Table
Mobile Source Emissions Inventories - Winter CO
CO Maintenance Area
for 2009 CLRP and FY 2010-2015 TIP
(Tons/Day)

	1990	2010	2020	2030
	Winter CO	Winter CO	Winter CO	Winter CO
I Network				
Start	1051.8	358.05	305.92	315.95
Running	1403.8	321.32	245.58	248.06
II Off-Network				
Local Roads	97.9	23.45	19.44	19.77
School Buses	1.2	0.63	0.21	0.10
Transit Buses	3.5	1.29	0.28	0.16
Auto Access	31.3	13.94	14.20	15.08
TOTAL	2589.5	718.69	585.64	599.12
CO Budget		1671.5	1671.5	1671.5

Exhibits 21A, 21B, 22A, and 22B present the VOC and NO_x results in a graphical format, which perhaps illustrates even better the steady and significant downward trends occurring in both VOC and NO_x 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 in 2002, but NO_x emissions have also dropped by more than 100 T/D from 381 to 269 T/D). From 2002 to year 2010, VOC emissions will be cut further, nearly in half, from 122 T/D to about 68 T/D, and NO_x emissions experience even greater reductions, from 269 T/D to 143 T/D. Exhibit 23 presents both direct PM_{2.5} and precursor NO_x results in a single bar chart, with different y-axes for each pollutant. The data show emissions much lower than base year 2002 conditions, as well as being below the budget levels in all cases.

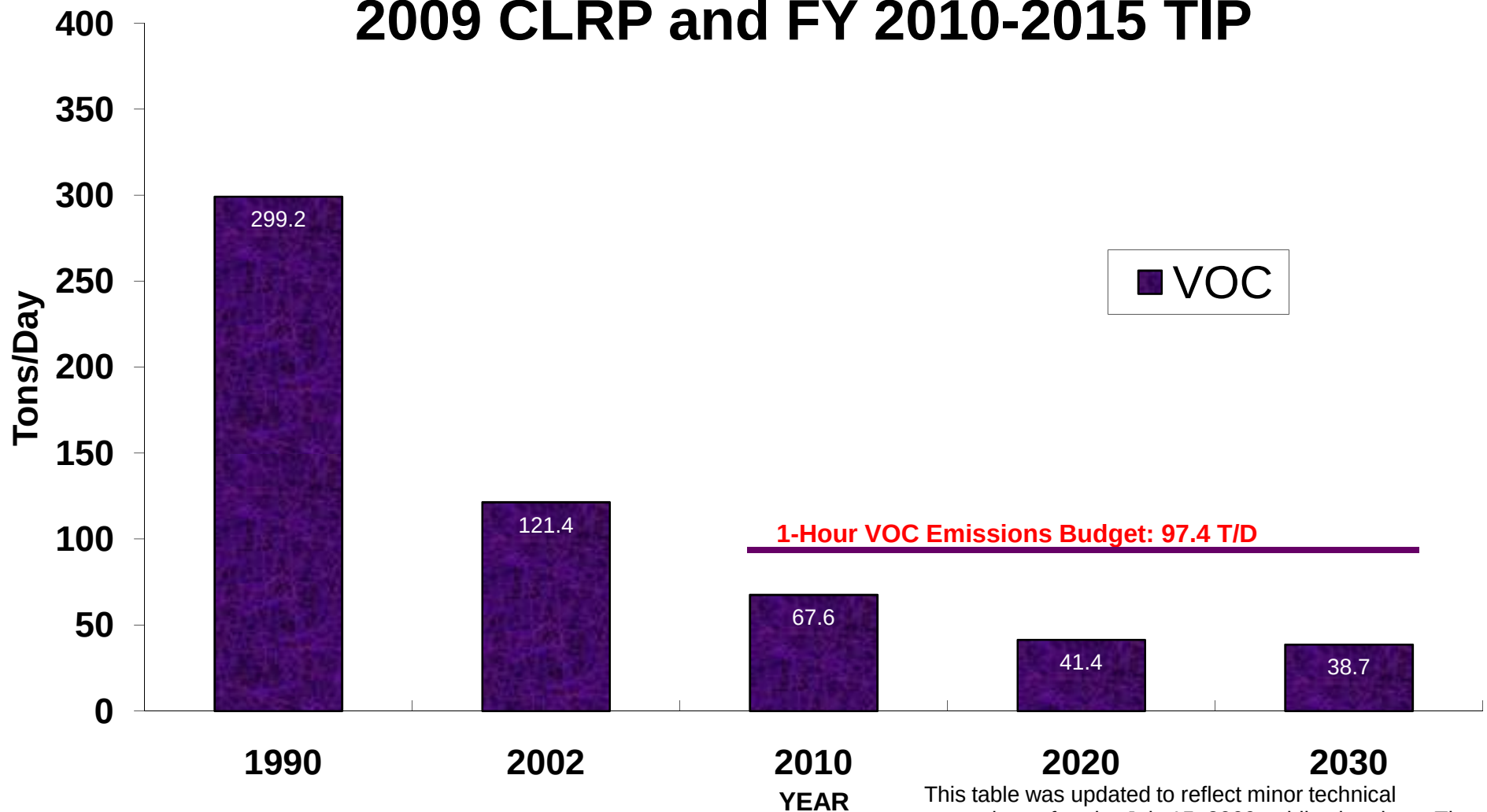
Exhibit 24 portrays similar information for wintertime CO conditions. These exhibits show that the mobile source inventories for the CLRP and the TIP, for each pollutant in each analysis year and scenario, adhere to each relevant emissions budget.

Assessment Criteria

The data in the preceding exhibits 17 - 24 show that estimated emissions are either within the mobile source emissions budget for each pollutant (including the new 8-hour ozone SIP budgets and PM_{2.5} budgets awaiting EPA's approval actions), or meet emissions reduction requirements in the case of PM_{2.5} pollutants. 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.

EXHIBIT 21A

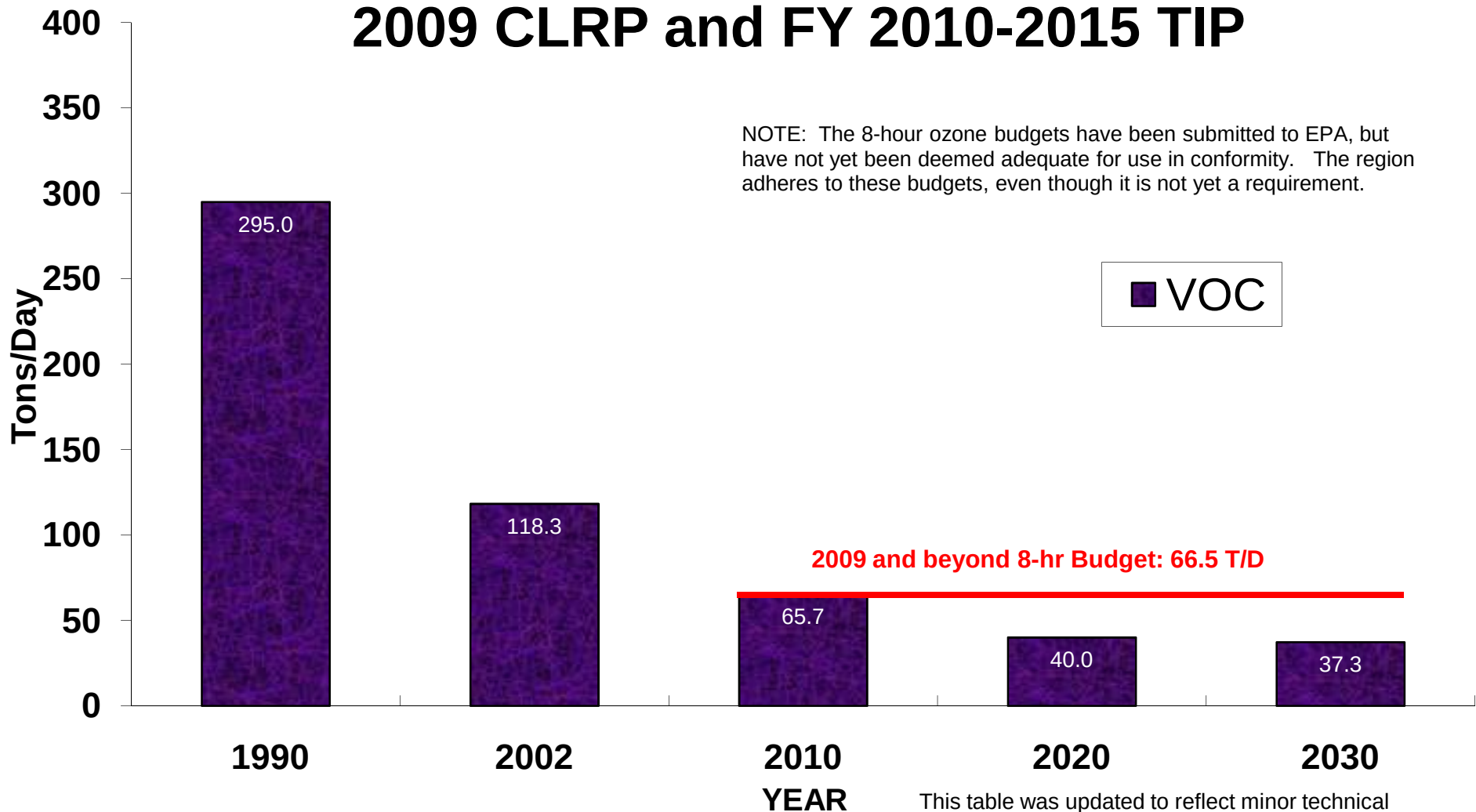
Mobile Source VOC Emissions for the 1-Hour Ozone Nonattainment Area 2009 CLRP and FY 2010-2015 TIP



This table was updated to reflect minor technical corrections after the July 15, 2009 publication date. The corrections do not affect the conformity finding.

EXHIBIT 21B

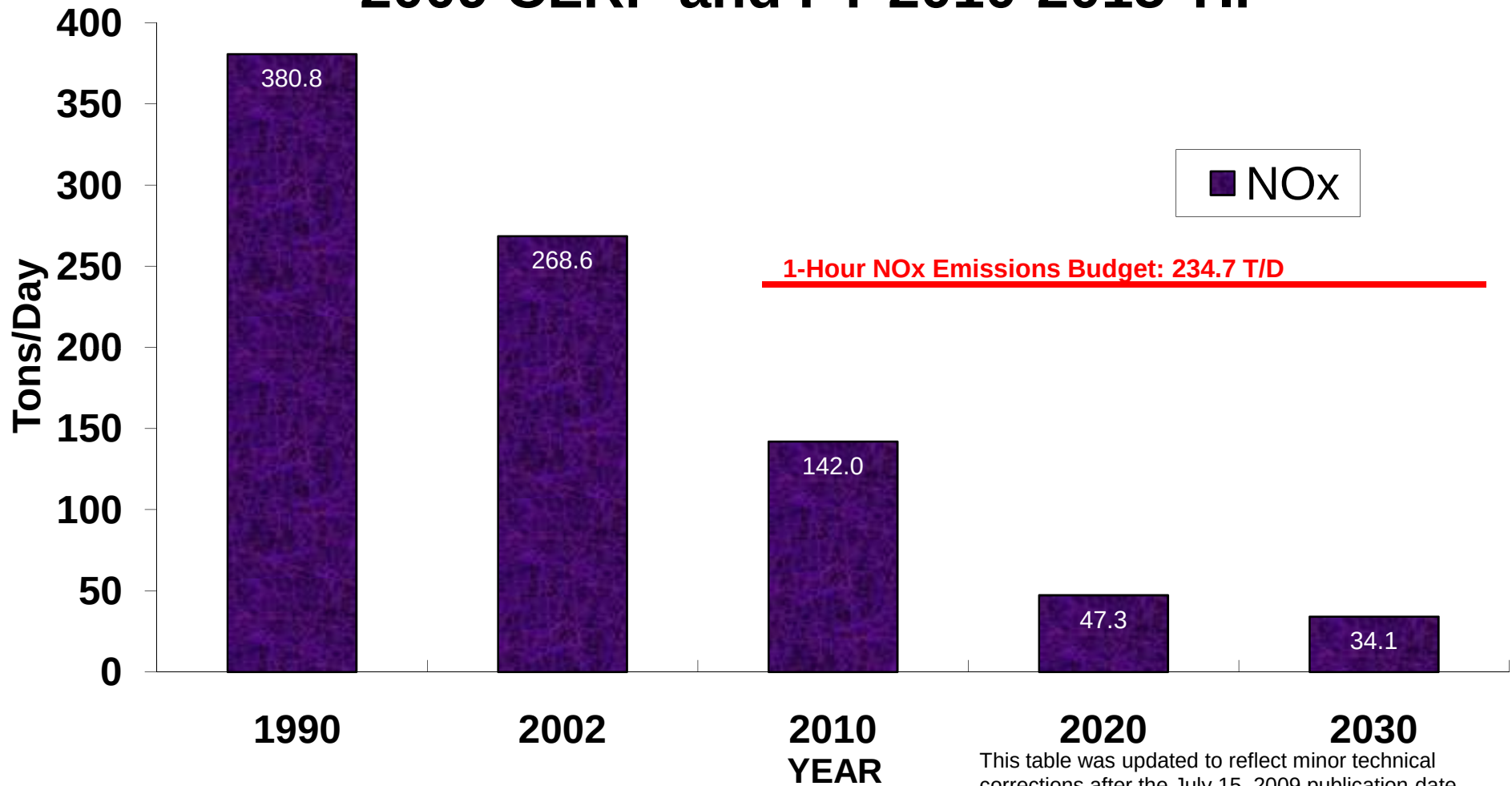
Mobile Source VOC Emissions for the 8-Hour Ozone Nonattainment Area 2009 CLRP and FY 2010-2015 TIP



This table was updated to reflect minor technical corrections after the July 15, 2009 publication date. The corrections do not affect the conformity finding.

EXHIBIT 22A

Mobile Source NO_x Emissions for the 1-Hour Ozone Nonattainment Area 2009 CLRP and FY 2010-2015 TIP



This table was updated to reflect minor technical corrections after the July 15, 2009 publication date. The corrections do not affect the conformity finding.

EXHIBIT 22B

Mobile Source NO_x Emissions for the 8-Hour Ozone Nonattainment Area 2009 CLRP and FY 2010-2015 TIP

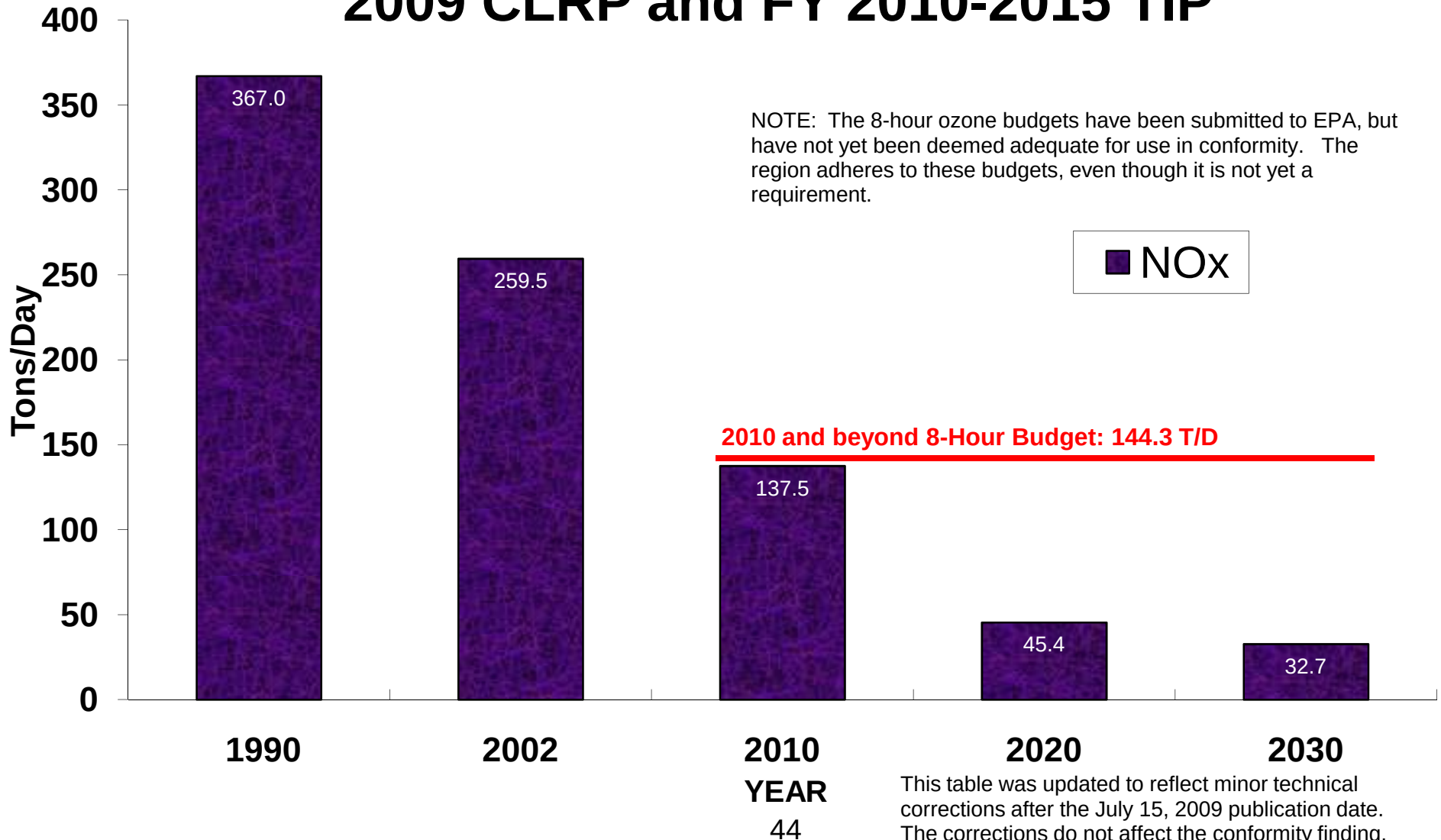


Exhibit 23
Mobile Source Emissions
2009 CLRP and FY 2010-2015 TIP
PM_{2.5} Direct and Precursor NOx



NOTE: The PM_{2.5} budgets have been submitted to EPA, but have not yet been deemed adequate for use in conformity. The region adheres to these budgets, even though it is not yet required.

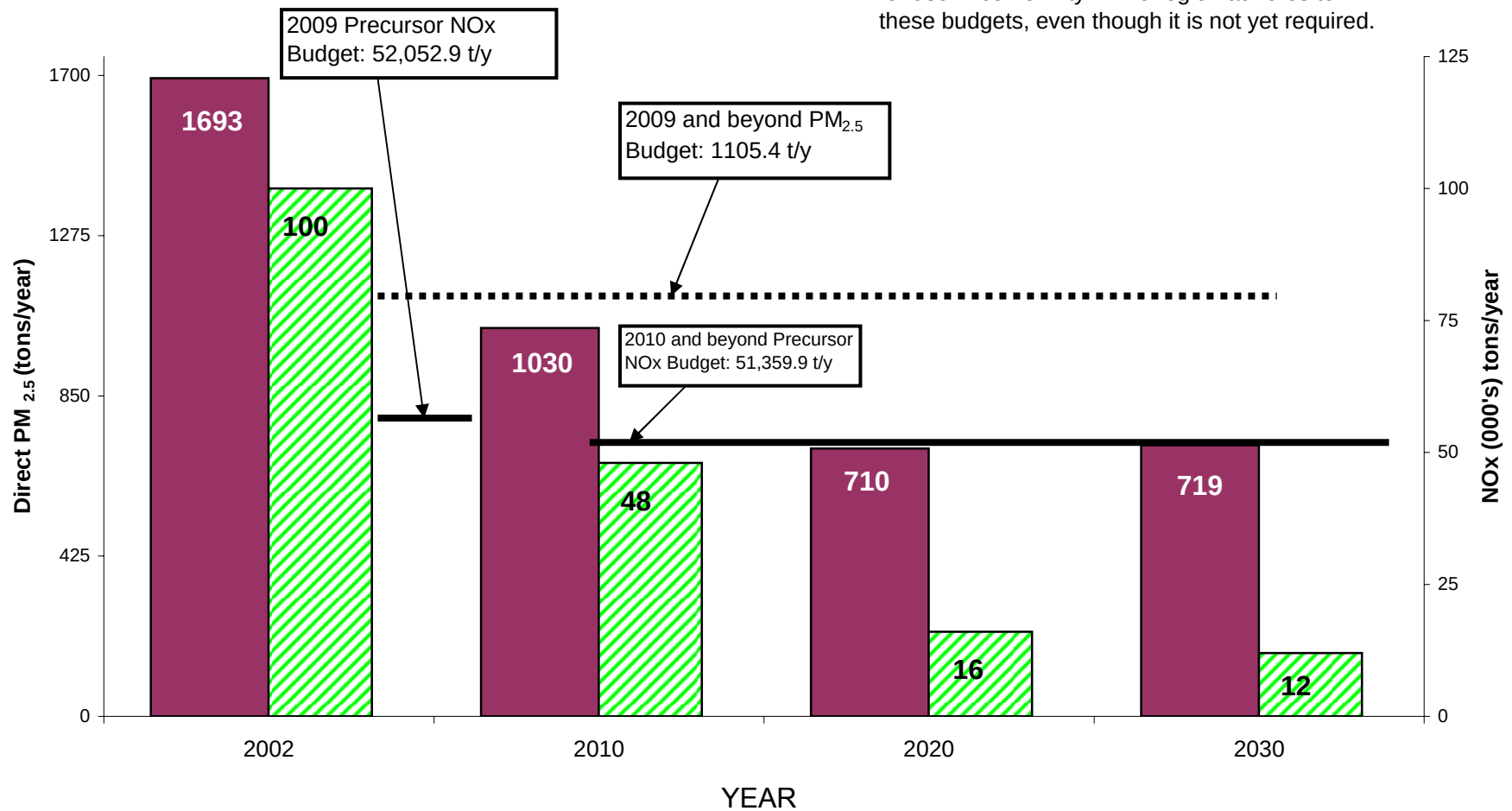
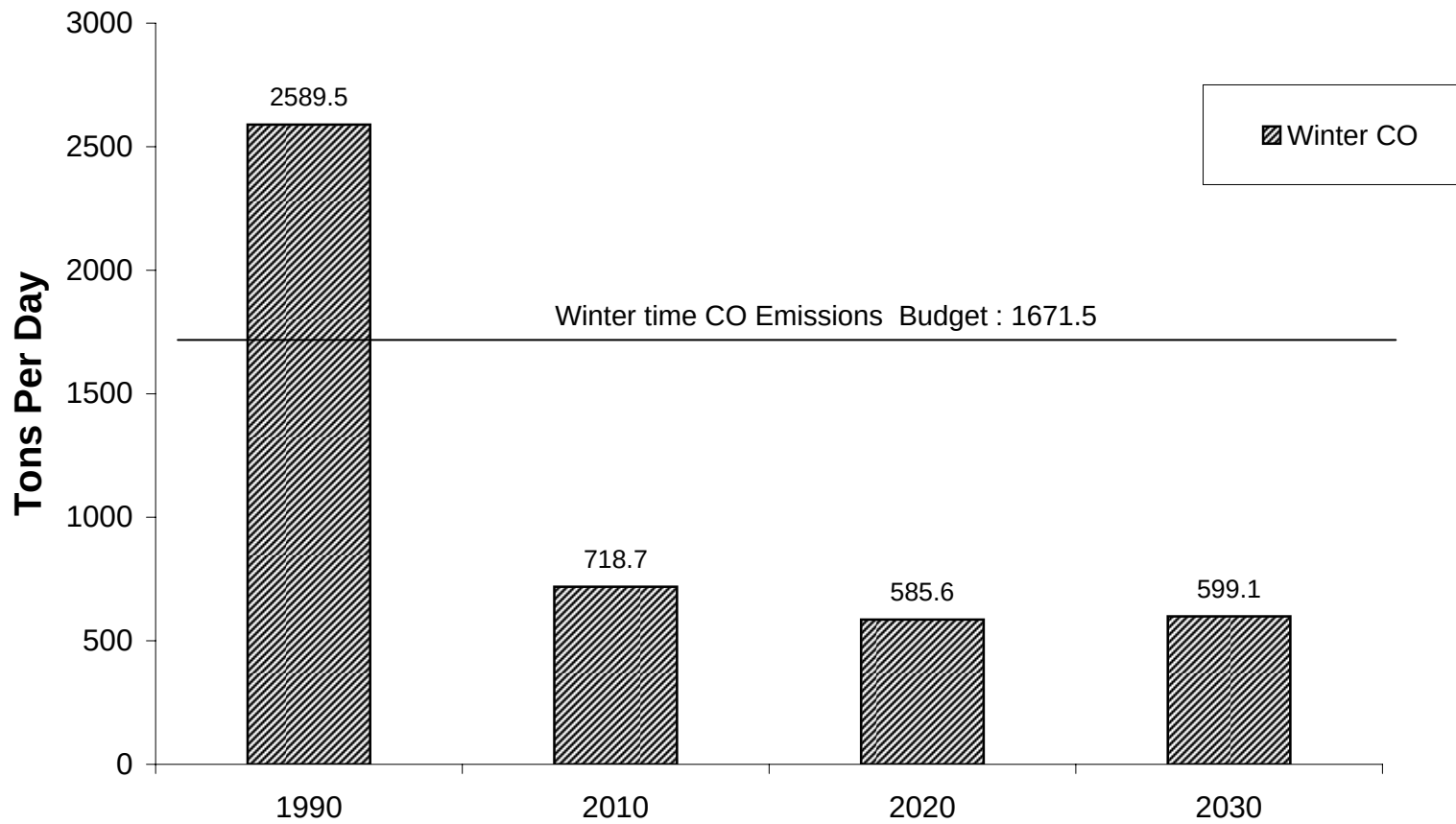


Exhibit 24
Mobile Source Winter CO Emissions
2009 CLRP and FY 2010-2015 TIP
CO Maintenance Area



F. NET EMISSIONS ANALYSIS

The emissions inventory data contained in the previous summary tables 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. Exhibit 25 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, with part A of the table documenting ozone season and part B documenting PM_{2.5} pollutants. The summary result of these measures, shown as the bottom line for each section of the table, amounts to additional reductions in 2010 of 2.3 tons per day of VOC and 4.8 tons per day of NO_x, and 25.0 and 1132.2 tons per year of direct PM_{2.5} and precursor NO_x, respectively. 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. These summary tables were prepared following COG staff's review of implementation status reports prepared by programming agencies; the agency status reports are contained in Appendix I. Combining network and off-network emissions results shown in each summary table with the additional reductions from TERMS would further improve the emissions margins for each pollutant.

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part A - Daily Ozone Precursor Emissions

* 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	ACTUAL							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM	COMPLETION DATE	COMPLETION DATE	2010		2020		2030		
											VOC	NOX	VOC	NOX	VOC	NOX	
9	X	1994-99	MDOT	Park & Ride Lot - MD 210/ MD 373	X				2000	2003	0.0005	0.0013	0.0003	0.0005	0.0003	0.0005	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					2006	0.0011	0.0013	0.0006	0.0005	0.0006	0.0005	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	0.0005	0.0013	0.0003	0.0005	0.0003	0.0005	C (TCM)
49	X	1995-00	MDOT	MARC Expansion Coaches	X				1999	2004	0.0049	0.0118	0.0029	0.0050	0.0026	0.0043	C (TCM)
51	X	1995-00	VDOT	Alexandria Telecommuting Pilot Program	X					2000 & 2001	0.0000	0.0000			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			0.0000	0.0000	C
54	X	1995-00	VDOT	City of Fairfax Bus Shelters	X				1999	2004	0.0000	0.0004	0.0000	0.0002	0.0000	0.0002	C (TCM)
56	X	1995-00	VDOT	Cherry Hill VRE Access			X			Jul-08	0.0038	0.0101	0.0022	0.0043	0.0020	0.0036	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	0.0000	C
60	X	1995-00	MCG	White Oak Park and Ride			X		2010		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	C
61	X	1995-00	MCG	Bicycle Facilities			X		FY99		0.0016	0.0008	0.0010	0.0004	0.0009	0.0003	C
62	X	1995-00	MCG	Pedestrian Facilities to Metrorail			X				0.0027	0.0034	0.0016	0.0014	0.0014	0.0012	C
63	X	1995-00	MDOT	MARC Replacement Coaches	X				1999	2004	0.0022	0.0050	0.0013	0.0022	0.0012	0.0018	C
64	X	1995-00	MDOT	MARC Expansion Coaches	X				1999	2004	0.0176	0.0436	0.0103	0.0187	0.0092	0.0158	C (TCM)
66	X	1995-00	VDOT	Commuter Lots - District Wide	X				varies	1995, 2001	0.0060	0.0139	0.0035	0.0059	0.0032	0.0050	C
67	X	1995-00	VDOT	I-66 and Stringfellow Rd. Park and Ride	X				2000	2000 end	0.0055	0.0084	0.0032	0.0036	0.0029	0.0030	C
68	X	1995-00	VDOT	Lake Ridge Park and Ride (now called Tacketts Mill lot)	X					1999/2000	0.0000	0.0042	0.0000	0.0018	0.0000	0.0015	C
69	X	1995-00	VDOT	Bicycle Trails and Facilities(Arlington & Fairfax Co - 7 locations)			X		varies	2007	0.0011	0.0071	0.0006	0.0031	0.0006	0.0026	C
70	X	1995-00	VDOT	Improved Access to Metrorail Stations(VRE 2 Stn)			X		varies	2000-2012	0.0003	0.0004	0.0002	0.0002	0.0001	0.0002	C
71	X	1995-00	VDOT	I-66 HOV access at Monument Dr.	X					1997	0.0027	0.0042	0.0032	0.0036	0.0029	0.0030	C
72	X	1995-00	DC	Bicycle Facilities		X					0.0132	0.0084	0.0077	0.0036	0.0069	0.0030	C
73	X	1995-00	REGION	COG Regional Ridesharing Support	X					on-going	0.1280	0.2253	0.0762	0.0969	0.0696	0.0822	C
74	X	1995-00	REGION	M-47 Integrated Ridesharing	X					on-going	0.0462	0.0786	0.0274	0.0338	0.0249	0.0286	C
75	X	1995-00	REGION	M-92 Telecommuting Support	X					on-going	0.1069	0.1672	0.0627	0.0718	0.0567	0.0606	C
77		1996-01	VDOT	Duke Street Pedestrian Bridge	X				2005	2007	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	0.0013	0.0006	0.0005	0.0006	0.0005	C
81	X	1996-01	VDOT	Arlington County Metrocheck Program	X				1997	1997 Onwards	0.0011	0.0013	0.0006	0.0005	0.0006	0.0005	C
82	X	1996-01	VDOT	Old Dominion Drive Bike Trail			X		2000	2008	0.0005	0.0004	0.0003	0.0002	0.0003	0.0002	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	0.0005	0.0004	0.0003	0.0002	0.0003	0.0002	C

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part A - Daily Ozone Precursor Emissions

* 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	ACTUAL							Project Category *
					FULL	SCALED-BACK	UNDER-WAY	REM	COMPLETION DATE	COMPLETION DATE	2010		2020		2030		
											VOC	NOX	VOC	NOX	VOC	NOX	
90	X	1996-01	REGION	M-47c Employer Outreach / Guaranteed Ride Home	X					on-going	0.3167	0.4862	0.1855	0.2089	0.1673	0.1762	C
91	X	1996-01	REGION	M-70a Bicycle Parking			X		1999		0.0038	0.0029	0.0022	0.0013	0.0020	0.0011	C
92	X			M-92 Telecommuting Support ¹	Combined with item #75												C
95	X	1997-02	MCG	Germantown Transit Center	X				2005		0.0027	0.0080	0.0016	0.0034	0.0014	0.0029	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	0.0006	0.0001	0.0006	0.0001	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	0.0001	C
108	X	1997-02	MDOT	M-103 Taxicab Replacement in Maryland ²	X				2005	Stopped	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	0.0005	0.0005	0.0003	0.0002	0.0002	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					Ongoing	0.0080	0.0270					SP
113	X	1998-03	PG	Prince George's County Bus Replacement	X				1998	Ongoing	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	2009	0.0005	0.0004	0.0003	0.0002	0.0003	0.0002	C
118	X	1998-03	VDOT	Northern Virginia Turn Bays	X				2000	1998	0.0006	0.0008	0.0003	0.0003	0.0003	0.0002	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			2005	0.0161	0.0274	0.0095	0.0118	0.0087	0.0100	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	0.0044	0.0151	0.0026	0.0065	0.0023	0.0055	C
124	X	1999-04	MDOT	Signal Systems (197/MD-198, MD-382 TO US-301,US301)	X				2000	2002	0.0068	-0.0016	0.0040	-0.0005	0.0036	-0.0004	TR
125	X	1999-04	VDOT	Transit Center at 7 Corners	X				2002	2001	0.0005	0.0008	0.0003	0.0004	0.0003	0.0003	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	2008	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	0.0137	0.0231	0.0080	0.0099	0.0072	0.0084	C
131	X	2000-05	MDOT	Various park and Ride Lots	X				2002	2003	0.0038	0.0136	0.0022	0.0059	0.0020	0.0049	C
132	X	2000-05	MDOT	Signal Systems	X				Varies	on-going	0.0017	0.0000	0.0015	0.0000	0.0009	0.0000	TR
133	X	2000-05	VDOT	250 Spaces at Gambrell/Hoopes Rds. Park and Ride	X				2002	2004	0.0038	0.0076	0.0022	0.0032	0.0020	0.0027	C
134	X	2000-05	VDOT	300 Spaces at Backlick Rd	X				2003	2007	0.0027	0.0055	0.0016	0.0023	0.0014	0.0020	C
135	X	2000-05	VDOT	Accotink-Gateway Connector Trail	X				2002	2005 Summer	0.0038	0.0042	0.0022	0.0018	0.0020	0.0015	C
136	X	2000-05	VDOT	Columbia Pike Trail	X				2000	2009	0.0033	0.0034	0.0019	0.0014	0.0017	0.0012	C
137	X	2000-05	VDOT	Lee Highway trail	X				2000	2007	0.0016	0.0017	0.0010	0.0007	0.0009	0.0006	C
138	X	2000-05	VDOT	Arlington Bus Shelter Improvements	X				2005	2005	0.0005	0.0004	0.0003	0.0002	0.0003	0.0002	C
139	X	2000-05	VDOT	Pentagon Metrostation Improvements	X					2003	0.0044	0.0071	0.0026	0.0031	0.0023	0.0026	C

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part A - Daily Ozone Precursor Emissions

* 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							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM			2010		2020		2030		
											VOC	NOX	VOC	NOX	VOC	NOX	
140	X	2000-05	MDOT	East/West Intersection Improvements			X		2005	2005	0.0225	0.0105	0.0132	0.0045	0.0118	0.0038	C
141	X	2001-06	Feds	Federal Transit/Ridesharing subsidy	X				on-going		0.0561	0.0802	0.0327	0.0344	0.0294	0.0290	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				2006	Jun-06	0.2100	0.0000	0.4300	0.0000	0.4300	0.0000	H (TCM)
144		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	0.0156	0.0403	0.0092	0.0127	0.0100	0.0168	TR
146	X	2003-08	DC	Bicycle Lane in D. C. (35 Mile)			X		2005	2008	0.0091	0.0075	0.0053	0.0032	0.0048	0.0027	C (TCM)
147	X	2003-08	DC	Bicycle Racks in D. C. (500)	X				2005	2004	0.0013	0.0008	0.0007	0.0004	0.0007	0.0003	C (TCM)
148	X	2003-08	DC	External Bicycle Racks on WMATA Buses in D. C. (600)	X				2005	2003	0.0019	0.0027	0.0011	0.0012	0.0010	0.0010	C (TCM)
149		2003-08	DC	CNG Rental Cars (18)				X	2005		0.0000	0.0002					SP
150	X	2003-08	DC	Sidewalks in D.C. (\$ 5 million)	X				2005	2004	0.0344	0.0492	0.0201	0.0211	0.0180	0.0178	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	0.0125	0.0177	0.0073	0.0076	0.0066	0.0064	C
153	X	2003-08	MDOT	Commuter Tax Credit	X				2005	n/a	0.0751	0.1083	0.0438	0.0465	0.0394	0.0392	C
155		2003-08	MDOT	Employer Vanpool Program (WWB)				X	2005		0.0018	0.0037					C
156	X	2003-08	MDOT	Green Line Link			X		2005	n/a	0.0025	0.0041	0.0014	0.0018	0.0013	0.0015	C
157	X	2003-08	MDOT	Park & Ride Lots - Southern Maryland			X		2005	2005	0.0048	0.0096	0.0028	0.0041	0.0025	0.0035	C
158	X	2003-08	MDOT	Prince George's County- Bus Exp			X		2005	n/a	0.0344	0.0581	0.0201	0.0250	0.0181	0.0210	C
159	X	2003-08	MDOT	MTA - Bus Service Expansion			X		2005	n/a	0.0078	0.0139	0.0045	0.0060	0.0041	0.0050	C
160	X	2003-08	MDOT	Ride- On - Super Discount			X		2005	n/a	0.0009	0.0013	0.0005	0.0005	0.0005	0.0005	C
161	X	2003-08	Regional	Regional Traveler Information Systems			X		2005		0.0984	0.5250	0.0579	0.1656	0.0522	0.1156	TR
162	X	2003-08	MDOT	Universal Transportation Access (MD + WMATA)			X		2005	n/a	0.0154	0.0220	0.0090	0.0095	0.0081	0.0080	C
163	X	2003-08	MCG	Construction of 1300 additional Parking Spaces at Grosvenor Metro Garage	X				2004		0.0044	0.0092	0.0026	0.0040	0.0025	0.0036	C (TCM)
164	X	2003-08	MCG	Bethesda Shuttle Bus Services	X				2004		0.0030	0.0042	0.0017	0.0018	0.0016	0.0015	C
165	X	2003-08	MCG	External Bicycle Racks on Ride-On Buses in Montgomery County	X				2004		0.0006	0.0009	0.0003	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		0.0010	0.0015	0.0006	0.0006	0.0005	0.0005	C
168	X	2003-08	MCG	Annual Sidewalk Program	X				2004		0.0164	0.0234	0.0096	0.0101	0.0086	0.0085	C
169		2003-08	MDOT	Bethesda Breeze/International Express Metrobus				X	2005	Removed	0.0036	0.0047	0.0021	0.0020	0.0019	0.0017	C
170		2003-08	MDOT	Bethesda-8, Silver Spring Downtown Dasher and Prince Georges Co. Shuttles at 3 PNR lot				X	2005	Removed	0.0085	0.0092	0.0049	0.0040	0.0044	0.0033	C
171		2003-08	MDOT	Proposed Transportation Management District in Montgomery County (Rockville and Gaithersburg)				X	2005	Removed	0.0055	0.0069	0.0032	0.0030	0.0029	0.0025	C
172	X	2003-08	MDOT	Sidewalks (Bikes/Pedestrian) at / near Rail Stations	X				2005	2002	0.0089	0.0130	0.0052	0.0056	0.0047	0.0047	C
173	X	2003-08	MDOT	Neighborhood Sidewalks Improvements (Bike/Pedestrian)	X				2005	2004	0.0031	0.0015	0.0018	0.0006	0.0016	0.0005	C
174	X	2003-08	MDOT	Neighborhood Conservation Program - Neighborhood Sidewalks Improvements (Bikes/Pedestrian)		X			2005	Ongoing	0.0027	0.0013	0.0016	0.0005	0.0014	0.0005	C
175	X	2003-08	MDOT	Maryland bus Transit Service Expansion	X				2005	2004	0.0135	0.0286	0.0079	0.0123	0.0071	0.0103	C

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part A - Daily Ozone Precursor Emissions

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NOS	CREDIT TAKEN	TIP CREDITED	AGENCY	PROJECT	IMPLEMENTATION STATUS				ORIGINAL COMPLETION DATE	ACTUAL COMPLETION DATE							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM			2010		2020		2030		
											VOC	NOX	VOC	NOX	VOC	NOX	
176	X	2003-08	VDOT	Universal Transportation Access Program	X				2005	2005-07	0.0011	0.0017	0.0007	0.0007	0.0006	0.0006	C
177	X	2003-08	VDOT	Interactive Rideshare & Kiosk Initiative			X		2008 onward		0.0004	0.0006	0.0002	0.0003	0.0002	0.0002	C
178	X	2003-08	VDOT	Mobile Commuter Stores	X				2005	2005	0.0021	0.0035	0.0012	0.0015	0.0011	0.0013	C
179	X	2003-08	VDOT	Telework Incentive Program(Telework VA) ²	X				2005	Fall 2006	0.0007	0.0011	0.0004	0.0005	0.0004	0.0004	C
180	X	2003-08	VDOT	Commuter Choice	X				2005		0.0009	0.0012	0.0005	0.0005	0.0005	0.0004	C
181	X	2003-08	VDOT	Employer Shuttle Services				X	2005		0.0109	0.0147	0.0064	0.0063	0.0057	0.0053	C
184	X	2003-08	VDOT	Van Start / Van Save	X				2005	till 2006	0.0013	0.0023					C
185	X	2003-08	VDOT	Metro Shuttle Bus			X		2005	1999-2005	0.0011	0.0023	0.0007	0.0010	0.0006	0.0008	C
187	X	2003-08	VDOT	VRE Mid-Day Train Service	X				2005	2002	0.0015	0.0026	0.0009	0.0011	0.0008	0.0009	C
190	X	2003-08	VDOT	Employer Vanpool Program(Bridge deck)	X				2005	2004 - 2008							C
191	X	2003-08	VDOT	Town of Leesburg P&R Lot			X		2005	early 2009	0.0018	0.0035	0.0011	0.0015	0.0010	0.0013	C
192	X	2003-08	VDOT	District-wide P&R Lots	X				2005	2001-2005	0.0108	0.0198	0.0063	0.0085	0.0057	0.0072	C
193	X	2003-08	VDOT	Additional Parking at 4 Metro stations	X				2005	2005	0.0140	0.0295	0.0082	0.0127	0.0073	0.0107	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	Jun-06	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	0.0016	0.0004	0.0007	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	0.0017	0.0007	0.0007	0.0006	0.0007	C (TCM)
202		2003-08	MDOT	Fleet Replacement (state auto fleet, gas to hybrid, 250 vehicles)				X	2005		0.0055	0.0133	0.0055	0.0133			SP
203	X	2003-08	MDOT	Replace 55 Montgomery County 10 yr. old buses w/ new CNG buses			X		2005	Ongoing	0.0459	0.1628	0.0459	0.1628			SP
204		2003-08	MDOT	Neighborhood Bus Shuttle (5 circulator routes)				X	2005		0.0072	0.0108	0.0042	0.0046	0.0038	0.0039	C
205	X	2003-08	MDOT	New Surface Parking at Transit Centers (500 spaces)			X		2005	2005	0.0025	0.0053	0.0015	0.0023	0.0013	0.0019	C
206		2003-08	MDOT	Additional Bike Lockers at Metro-Stations				X	2005		0.0127	0.0185	0.0074	0.0079	0.0067	0.0067	C
207	X	2003-08	MDOT	Bike Facilities at PnR Lots or other similar location			X		2005	2005	0.0089	0.0147	0.0052	0.0063	0.0047	0.0053	C
208		2003-08	MDOT	CNG Fueling Stations				X	2005		0.1270	0.1170					SP
209		2003-08	MDOT	Gas cap replacements (ROP Credit)				X	2005		N/A	N/A	N/A	N/A	N/A	N/A	SP
210		2003-08	MDOT	Gas can turnover (ROP Credit)				X	2005		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	0.0013	0.0020	0.0008	0.0008	0.0007	0.0007	C (TCM)
212	X	2003-08	MDOT	Bike \ Pedestrian Trail - Anacostia River Walk			X		2005	Ongoing	0.0006	0.0004	0.0003	0.0002	0.0003	0.0001	C
213		2003-08	MDOT	Transit Prioritization - Queue Jumps				X	2005		0.0030	0.0033	0.0017	0.0014	0.0016	0.0012	C
214	X	2003-08	MDOT	Commuter Choice Benefit/Tax Credit - Marketing Expansion	X				2005	Ongoing	0.0525	0.0761	0.0306	0.0327	0.0275	0.0275	C
215	X	2003-08	MDOT	Improvements to Pedestrian Access in TOD areas (4 locations)			X		2005	Ongoing	0.0057	0.0077	0.0033	0.0033	0.0030	0.0028	C
216	X	2003-08	MDOT	Telecommuting Expansion ¹	X				2005	Ongoing	0.0620	0.1070	0.0362	0.0460	0.0325	0.0387	C
217		2003-08	MDOT	Replace older Diesel Engine in Public Sector vehicles				X	2005		0.0237	0.1300					H
218	X	2003-08	VDOT	MV-92 Telecommuting Program - Expanded	X				2005	2005	0.0662	0.1143	0.0386	0.0491	0.0347	0.0413	C

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part A - Daily Ozone Precursor Emissions

* 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	ACTUAL							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM	COMPLETION DATE	COMPLETION DATE	2010		2020		2030		
											VOC	NOX	VOC	NOX	VOC	NOX	
219	X	2003-08	VDOT	MV-123 Employer Outreach for Public Sector Employees ²	X				2005	2003	0.0147	0.0210	0.0086	0.0090	0.0077	0.0076	C
220	X	2003-08	REGION	Signal System Optimization	X				2005	2005	0.4155	0.1468	0.2445	0.0463	0.2204	0.0323	TR
221		2007-12	MDOT	Two P & R Lots in Frederick County (70 spaces)	X				2007	2008	0.0006	0.0011	0.0003	0.0005	0.0003	0.0004	C
									Available Emissions Credits		2.325	4.497	1.406	1.088	1.270	0.756	

TRANSPORTATION EMISSION REDUCTION MEASURES (CLRP Projects Only)

Part A - Daily Ozone Precursor Emissions

Project Category: TR - Traffic Stream, C - Commute, H - Engine Technology (Heavy Duty 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	X				2010		-0.0074	0.2736	-0.0021	0.1206	0.0005	0.0377	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				X			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					2015		0.0000	0.0000	0.0004	0.0012	0.0003	0.0007	C
229	X	1997-02 TIP	MGC	White Oak Park and Ride					2008		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	0.0006	0.3266	0.1764	0.4424	0.3512	0.6434
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GRAND TOTAL (Current Measures + CLRP plan)	2.325	4.823	1.583	1.531	1.621	1.399
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DEFINITIONS: Project Numbers implemented fully prior to 2000 were removed from the TERM Tracking Sheet

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 total 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

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part B - Yearly PM_{2.5} and Precursor NOx Emissions

* 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							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM			2010		2020		2030		
											PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	
9	X	1994-99	MDOT	Park & Ride Lot - MD 210/ MD 373	X				2000	2003	0.0097	0.3774	0.0095	0.0988	0.0095	0.0836	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					2006	0.0097	0.3774	0.0095	0.0988	0.0095	0.0836	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	0.0097	0.3774	0.0095	0.0988	0.0095	0.0836	C (TCM)
49	X	1995-00	MDOT	MARC Expansion Coaches	X				1999	2004	0.0907	3.5222	0.0891	0.9224	0.0891	0.7798	C (TCM)
51	X	1995-00	VDOT	Alexandria Telecommuting Pilot Program	X					2000 & 2001	0.0000	0.0000	0.0000	0.0000	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	0.0000	0.0000	0.0000	0.0000	C
54	X	1995-00	VDOT	City of Fairfax Bus Shelters	X				1999	2004	0.0032	0.1258	0.0032	0.0329	0.0032	0.0279	C (TCM)
56	X	1995-00	VDOT	Cherry Hill VRE Access			X			Jul-08	0.0777	3.0190	0.0764	0.7906	0.0764	0.6684	C (TCM)
58	X	1995-00	WMATA	Bus Replacement (172 buses)	X				1998	1998	0.9490	36.8655					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	0.0000	C
60	X	1995-00	MCG	White Oak Park and Ride			X		2010		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	C
61	X	1995-00	MCG	Bicycle Facilities			X		FY99		0.0065	0.2516	0.0064	0.0659	0.0064	0.0557	C
62	X	1995-00	MCG	Pedestrian Facilities to Metrorail			X				0.0259	1.0063	0.0255	0.2635	0.0255	0.2228	C
63	X	1995-00	MDOT	MARC Replacement Coaches	X				1999	2004	0.0389	1.5095	0.0382	0.3953	0.0382	0.3342	C
64	X	1995-00	MDOT	MARC Expansion Coaches	X				1999	2004	0.3368	13.0824	0.3309	3.4261	0.3309	2.8966	C (TCM)
66	X	1995-00	VDOT	Commuter Lots - District Wide			X		varies	1995, 2001	0.1069	4.1512	0.1050	1.0871	0.1050	0.9191	C
67	X	1995-00	VDOT	I-66 and Stringfellow Rd. Park and Ride	X				2000	2000 end	0.0648	2.5159	0.0636	0.6589	0.0636	0.5570	C
68	X	1995-00	VDOT	Lake Ridge Park and Ride (now called Tacketts Mill lot)	X					1999/2000	0.0324	1.2579	0.0318	0.3294	0.0318	0.2785	C
69	X	1995-00	VDOT	Bicycle Trails and Facilities (Arlington & Fairfax Co - 7 locations)			X		varies	2007	0.0551	2.1385	0.0541	0.5600	0.0541	0.4735	C
70	X	1995-00	VDOT	Improved Access to Metrorail Stations (VRE 2 Stn)			X		varies	2000-2012	0.0032	0.1258	0.0032	0.0329	0.0032	0.0279	C
71	X	1995-00	VDOT	I-66 HOV access at Monument Dr.	X					1997	0.0648	2.5159	0.0636	0.6589	0.0636	0.5570	C
72	X	1995-00	DC	Bicycle Facilities		X					0.0648	2.5159	0.0636	0.6589	0.0636	0.5570	C
73	X	1995-00	REGION	COG Regional Ridesharing Support	X					on-going	1.8230	67.3023	1.7913	17.6323	1.7913	15.0114	C
74	X	1995-00	REGION	M-47 Integrated Ridesharing	X					on-going	0.6309	23.5030	0.6199	6.1570	0.6199	5.2352	C
75	X	1995-00	REGION	M-92 Telecommuting Support	X					on-going	1.3111	50.0448	1.2883	13.1076	1.2883	11.1080	C
77		1996-01	VDOT	Duke Street Pedestrian Bridge	X				2005	2007	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	0.0097	0.3774	0.0095	0.0988	0.0095	0.0836	C

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part B - Yearly PM_{2.5} and Precursor NOx Emissions

* 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							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM			2010		2020		2030		
											PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	
81	X	1996-01	VDOT	Arlington County Metrocheck Program	X				1997	1997 Onwards	0.0097	0.3774	0.0095	0.0988	0.0095	0.0836	C
82	X	1996-01	VDOT	Old Dominion Drive Bike Trail			X		2000	2008	0.0032	0.1258	0.0032	0.0329	0.0032	0.0279	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	0.0032	0.1258	0.0032	0.0329	0.0032	0.0279	C
90	X	1996-01	REGION	M-47c Employer Outreach / Guaranteed Ride Home	X					on-going	3.7922	145.5932	3.7262	38.1318	3.7262	32.2892	C
91	X	1996-01	REGION	M-70a Bicycle Parking			X		1999		0.0227	0.8805	0.0223	0.2306	0.0223	0.1950	C
92	X			M-92 Telecommuting Support ¹	Combined with item #75												C
95	X	1997-02	MCG	Germantown Transit Center	X				2005		0.0615	2.3901	0.0605	0.6259	0.0605	0.5292	C (TCM)
102	X	1997-02	PG	Prince George's County Bus Replacement	X				1998	1998	0.0339	1.3166					SP (TCM)
106	X	1997-02	VDOT	PRTC Employer Commuting Outreach Program	X					1977 on-going	0.0016	0.0629	0.0016	0.0165	0.0016	0.0139	C
107	X	1997-02	VDOT	PRTC Multimodal Strategic Marketing Implementation Plan	X					1977 on-going	0.0016	0.0629	0.0016	0.0165	0.0016	0.0139	C
108	X	1997-02	MDOT	M-103 Taxicab Replacement in Maryland ²	X				2005	Stopped	1.0074	39.1331					SP
109	X	1997-02	REGION	M-70b Employer Outreach for Bicycles	X				1998	on going	0.0036	0.1599	0.0035	0.0418	0.0035	0.0347	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	0.6090	23.6554					SP
112	X	1998-03	MCG	Montgomery County Bus Replacement	X					Ongoing	0.1017	3.9499					SP
113	X	1998-03	PG	Prince George's County Bus Replacement	X				1998	Ongoing	0.0075	0.2926					SP
114	X	1998-03	FDC	Frederick County Bus Replacement	X						0.0000	0.0000					SP
117	X	1998-03	VDOT	Arlington County Four Mile Run Bike Trail	X				1999	2009	0.0032	0.1258	0.0032	0.0329	0.0032	0.0279	C
118	X	1998-03	VDOT	Northern Virginia Turn Bays	X				2000	1998	0.0057	0.2214	0.0056	0.0580	0.0056	0.0490	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	1.4537	56.4687					SP
122	X	97 & 98 TIP	REGION	M-101a Mass Marketing Campagin (Consumer)			X			2005	0.2195	8.1811	0.2157	2.1432	0.2157	1.8222	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	0.1166	4.5285	0.1146	1.1859	0.1146	1.0027	C
124	X	1999-04	MDOT	Signal Systems (197/MD-198, MD-382 TO US-301,US301)	X				2000	2002	-0.0114	-0.4428	-0.0112	-0.1160	-0.0112	-0.0980	TR
125	X	1999-04	VDOT	Transit Center at 7 Corners	X				2002	2001	0.0065	0.2516	0.0064	0.0659	0.0064	0.0557	C
126	X	1999-04	VDOT	Falls Church Clean Diesel Bus Service	X				2000	2003	0.0188	0.7315					SP
127	X	1999-04	VDOT	VA 234 Bike Trail			X		2001	2008	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	0.1781	6.9186	0.1750	1.8119	0.1750	1.5318	C
131	X	2000-05	MDOT	Various park and Ride Lots	x				2002	2003	0.1053	4.0897	0.1035	1.0710	0.1035	0.9055	C

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part B - Yearly PM_{2.5} and Precursor NOx Emissions

* 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							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM			2010		2020		2030		
											PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	
132	X	2000-05	MDOT	Signal Systems	X				Varies	on-going	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	TR
133	X	2000-05	VDOT	250 Spaces at Gambrell/Hooes Rds. Park and Ride	X				2002	2004	0.0583	2.2643	0.0573	0.5930	0.0573	0.5013	C
134	X	2000-05	VDOT	300 Spaces at Backlick Rd	X				2003	2007	0.0421	1.6353	0.0414	0.4283	0.0414	0.3621	C
135	X	2000-05	VDOT	Accotink-Gateway Connector Trail	X				2002	2005	0.0324	1.2579	0.0318	0.3294	0.0318	0.2785	C
136	X	2000-05	VDOT	Columbia Pike Trail			X		2000	2007	0.0259	1.0063	0.0255	0.2635	0.0255	0.2228	C
137	X	2000-05	VDOT	Lee Highway trail	X				2000	2007	0.0130	0.5032	0.0127	0.1318	0.0127	0.1114	C
138	X	2000-05	VDOT	Arlington Bus Shelter Improvements	X				2005	2005	0.0032	0.1258	0.0032	0.0329	0.0032	0.0279	C
139	X	2000-05	VDOT	Pentagon Metrostation Improvements	X					2003	0.0551	2.1385	0.0541	0.5600	0.0541	0.4735	C
140	X	2000-05	MDOT	East/West Intersection Improvements			X		2005	2005	0.0810	3.1448	0.0795	0.8236	0.0795	0.6963	C
141	X	2001-06	Feds	Federal Transit/Ridesharing subsidy	X				on-going		0.6185	24.0264	0.6078	6.2921	0.6078	5.3196	C
142	X	2002-07	WMATA	100 CNG buses	X				2002		0.5114	19.8664					SP (TCM)
143	X	2002-07	WMATA	ULSD with CRT filters	X				2006	Jun-06	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	H (TCM)
144		2003-08	DC	Replace 24 12 Taxicabs with CNG cabs				X	2005	2006	0.0591	2.2968					H
145	X	2003-08	DC	D.C.Incident Response & TrafficManagement System	X				2005	2004	0.2810	10.9156	0.2761	2.8586	0.2761	2.4168	TR
146	X	2003-08	DC	Bicycle Lane in D. C. (35 Mile)			X		2005	2008	0.0435	2.3259	0.0428	0.6077	0.0428	0.4952	C (TCM)
147	X	2003-08	DC	Bicycle Racks in D. C. (500)	X				2005	2004	0.0040	0.2658	0.0040	0.0694	0.0040	0.0555	C (TCM)
148	X	2003-08	DC	External Bicycle Racks on WMATA Buses in D. C. (600)	X				2005	2003	0.0210	0.8194	0.0206	0.2145	0.0206	0.1814	C (TCM)
149		2003-08	DC	CNG Rental Cars (18)				X	2005		0.0008	0.0293					SP
150	X	2003-08	DC	Sidewalks in D.C. (\$ 5 million)	X				2005	2004	0.3753	14.7624	0.3688	3.8646	0.3688	3.2644	C
151	X	2003-08	DC	CNG Refuse Haulers (2)	X				2005	2004	0.0075	0.2926					H (TCM)
152	X	2003-08	DC	Circulator /Feeder Bus Routes	X				2005	2003	0.1349	5.3254	0.1325	1.3941	0.1325	1.1770	C
153	X	2003-08	MDOT	Commuter Tax Credit	X				2005	n/a	0.8289	32.4959	0.8145	8.5072	0.8145	7.1890	C
155		2003-08	MDOT	Employer Vanpool Program (WWB)				X	2005		0.0282	1.0965					C
156	X	2003-08	MDOT	Green Line Link			X		2005	n/a	0.0332	1.2356	0.0326	0.3236	0.0326	0.2754	C
157	X	2003-08	MDOT	Park & Ride Lots - Southern Maryland			X		2005	2005	0.0716	2.5352	0.0704	0.6642	0.0704	0.5694	C
158	X	2003-08	MDOT	Prince George's County- Bus Exp			X		2005	n/a	0.4655	17.3263	0.4574	4.5376	0.4574	3.8619	C
159	X	2003-08	MDOT	MTA - Bus Service Expansion			X		2005	n/a	0.1127	4.1304	0.1108	1.0818	0.1108	0.9228	C
160	X	2003-08	MDOT	Ride- On - Super Discount			X		2005	n/a	0.0095	0.3755	0.0094	0.0983	0.0094	0.0830	C
161	X	2003-08	Regional	Regional Traveler Information Systems			X		2005		3.6645	142.3462	3.6007	37.2781	3.6007	31.5166	TR
162	X	2003-08	MDOT	Universal Transportation Access (MD + WMATA)			X		2005	n/a	0.1683	6.6190	0.1654	1.7328	0.1654	1.4637	C
163	X	2003-08	MCG	Construction of 1300 additional Parking Spaces at Grosvenor Metro Garage	X				2004		0.0779	2.7344	0.0765	0.7164	0.0765	0.6149	C (TCM)

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part B - Yearly PM_{2.5} and Precursor NOx Emissions

* 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							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM			2010		2020		2030		
											PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	
164	X	2003-08	MCG	Bethesda Shuttle Bus Services	X				2004		0.0321	1.2692	0.0316	0.3323	0.0316	0.2805	C
165	X	2003-08	MCG	External Bicycle Racks on Ride-On Buses in Montgomery County	X				2004		0.0065	0.2555	0.0064	0.0669	0.0064	0.0566	C
166	X	2003-08	MCG	New CNG Powered Light Duty Vehicle fleet in the County	X				2004		0.0004	0.0146					SP
167	X	2003-08	MCG	Free Bus Service on Selected Routes on I-270	X				2004		0.0112	0.4396	0.0110	0.1151	0.0110	0.0972	C
168	X	2003-08	MCG	Annual Sidewalk Program	X				2004		0.1787	7.0297	0.1756	1.8403	0.1756	1.5545	C
169		2003-08	MDOT	Bethesda Breeze/International Express Metrobus				X	2005	Removed	0.0351	1.4220	0.0345	0.3722	0.0345	0.3132	C
170		2003-08	MDOT	Bethesda-8, Silver Spring Downtown Dasher and Prince Georges Co. Shuttles at 3 PNR lot				X	2005	Removed	0.0634	2.8091	0.0623	0.7348	0.0623	0.6113	C
171		2003-08	MDOT	Proposed Transportation Management District in Montgomery County (Rockville and Gaithersburg)				X	2005	Removed	0.0504	2.0898	0.0496	0.5469	0.0496	0.4588	C
172	X	2003-08	MDOT	Sidewalks (Bikes/Pedestrian) at / near Rail Stations	X				2005	2002	0.1000	3.9056	0.0983	1.0225	0.0983	0.8645	C
173	X	2003-08	MDOT	Neighborhood Sidewalks Improvements (Bike/Pedestrian)	X				2005	2004	0.0039	0.4809	0.0038	0.1253	0.0038	0.0961	C
174	X	2003-08	MDOT	Neighborhood Conservation Program - Neighborhood Sidewalks Improvements (Bikes/Pedestrian)		X			2005	Ongoing	0.0034	0.4208	0.0033	0.1096	0.0033	0.0841	C
175	X	2003-08	MDOT	Maryland bus Transit Service Expansion	X				2005	2004	0.2408	8.4542	0.2366	2.2151	0.2366	1.9011	C
176	X	2003-08	VDOT	Universal Transportation Access Program	X				2005	2005-07	0.0127	0.4963	0.0124	0.1299	0.0124	0.1098	C
177	X	2003-08	VDOT	Interactive Rideshare & Kiosk Initiative			X		2008 onward		0.0050	0.1872	0.0049	0.0490	0.0049	0.0417	C
178	X	2003-08	VDOT	Mobile Commuter Stores	X				2005	2005	0.0278	1.0348	0.0273	0.2710	0.0273	0.2307	C
179	X	2003-08	VDOT	Telework Incentive Program (Telework VA) ²	X				2005	Fall 2006	0.0082	0.3166	0.0080	0.0829	0.0080	0.0701	C
180	X	2003-08	VDOT	Commuter Choice	X				2005		0.0093	0.3730	0.0091	0.0976	0.0091	0.0822	C
181	X	2003-08	VDOT	Employer Shuttle Services				X	2005		0.1100	4.4272	0.1081	1.1588	0.1081	0.9758	C
184	X	2003-08	VDOT	Van Start / Van Save	X				2005	till 2006	0.0182	0.6765					C
185	X	2003-08	VDOT	Metro Shuttle Bus			X		2005	1999-2005	0.0191	0.6761	0.0188	0.1771	0.0188	0.1518	C
187	X	2003-08	VDOT	VRE Mid-Day Train Service	X				2005	2002	0.0207	0.7692	0.0204	0.2014	0.0204	0.1715	C
190	X	2003-08	VDOT	Employer Vanpool Program (Bridge deck)	X				2005	2004 - 2008	0.0136	0.4960					C
191	X	2003-08	VDOT	Town of Leesburg P&R Lot			X		2005	early 2009	0.0285	1.0291	0.0280	0.2696	0.0280	0.2304	C
192	X	2003-08	VDOT	District-wide P&R Lots	X				2005	2001-2005	0.1617	5.8821	0.1589	1.5408	0.1589	1.3155	C
193	X	2003-08	VDOT	Additional Parking at 4 Metro stations	X				2005	2005	0.2484	8.7207	0.2440	2.2849	0.2440	1.9610	C
196	X	2003-08	WMATA	64 CNG Buses (Purchased in 2001)	X				2005	2004	0.3278	12.7332					SP (TCM)
197	X	2003-08	WMATA	250 CNG Buses (175 buses by Dec. 2004; 75 buses by mid 2006)	X				2005	Jun-06	1.2805	49.7392					SP
198	X	2003-08	WMATA	60 Engine Replacement (MY 1992 & 1993 MY buses)	X				2004	2004	0.2843	11.0421					SP
199	X	2003-08	WMATA	Car Sharing Program	X				2005	2004	0.0135	0.4742	0.0133	0.1242	0.0133	0.1066	C
200	X	2003-08	WMATA	Bikes Racks on WMATA Buses in VA (372 Bike Racks)	X				2005	2004	0.0130	0.5094	0.0128	0.1334	0.0128	0.1128	C (TCM)
202		2003-08	MDOT	Fleet Replacement (state auto fleet, gas to hybrid, 250 vehicles)				X	2005		0.0501	1.9457	0.0492	0.5095			SP

TERM TRACKING SHEET
TRANSPORTATION EMISSION REDUCTION MEASURES
Part B - Yearly PM_{2.5} and Precursor NOx Emissions

* 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							Project Category *
					FULL	SCALED- BACK	UNDER- WAY	REM			2010		2020		2030		
											PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	
203	X	2003-08	MDOT	Replace 55 Montgomery County 10 yr. old buses w/ new CNG buses			X		2005	Ongoing	0.6131	23.8163	0.6024	6.2371			SP
204		2003-08	MDOT	Neighborhood Bus Shuttle (5 circulator routes)				X	2005		0.0838	3.2378	0.0824	0.8477	0.0824	0.7178	C
205	X	2003-08	MDOT	New Surface Parking at Transit Centers (500 spaces)			X		2005	2005	0.0444	1.5607	0.0436	0.4089	0.0436	0.3509	C
206		2003-08	MDOT	Additional Bike Lockers at Metro-Stations				X	2005		0.1419	5.5431	0.1395	1.4512	0.1395	1.2269	C
207	X	2003-08	MDOT	Bike Facilities at PnR Lots or other similar location			X		2005	2005	0.1164	4.3726	0.1144	1.1451	0.1144	0.9733	C
208		2003-08	MDOT	CNG Fueling Stations				X	2005		0.4406	17.1161					SP
209		2003-08	MDOT	Gas cap replacements (ROP Credit)				X	2005		N/A	N/A	N/A	N/A	N/A	N/A	SP
210		2003-08	MDOT	Gas can turnover (ROP Credit)				X	2005		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	0.0150	0.5873	0.0148	0.1538	0.0148	0.1300	C (TCM)
212	X	2003-08	MDOT	Bike \ Pedestrian Trail - Anacostia River Walk			X		2005	Ongoing	0.0022	0.1287	0.0022	0.0336	0.0022	0.0271	C
213		2003-08	MDOT	Transit Prioritization - Queue Jumps				X	2005		0.0229	1.0035	0.0225	0.2625	0.0225	0.2187	C
214	X	2003-08	MDOT	Commuter Choice Benefit/Tax Credit - Marketing Expansion	X				2005	Ongoing	0.5833	22.8203	0.5732	5.9743	0.5732	5.0500	C
215	X	2003-08	MDOT	Improvements to Pedestrian Access in TOD areas (4 locations)			X		2005	Ongoing	0.0577	2.3196	0.0567	0.6072	0.0567	0.5113	C
216	X	2003-08	MDOT	Telecommuting Expansion ¹	X				2005	Ongoing	0.8615	31.8592	0.8466	8.3441	0.8466	7.1080	C
217		2003-08	MDOT	Replace older Diesel Engine in Public Sector vehicles				X	2005		0.4896	19.0179					H
218	X	2003-08	VDOT	MV-92 Telecommuting Program - Expanded ¹	X				2005	2005	0.9201	34.0239	0.9041	8.9111	0.9041	7.5909	C
219	X	2003-08	VDOT	MV-123 Employer Outreach for Public Sector Employees ²	X				2005	2003	0.1602	6.3004	0.1574	1.6494	0.1574	1.3932	C
220	X	2003-08	REGION	Signal System Optimization	X				2005	2005	1.0243	39.7879	1.0065	10.4198	1.0065	8.8093	TR
221	X	2007-12	MDOT	Two P & R Lots in Frederick County (70 spaces)	X				2007	2008	0.0087	0.3171	0.0086	0.0831	0.0086	0.0709	C
					Available Emissions Credits						24.546	1034.338	15.702	184.596	15.099	150.996	

TRANSPORTATION EMISSION REDUCTION MEASURES (CLRP Projects Only)
Part B - Yearly PM_{2.5} and Precursor NO_x Emissions

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

NOS	CREDIT	TIP	AGENCY	PROJECT	IMPLEMENTATION STATUS				PROJECTED COMPLETION	ACTUAL COMPLETION	TONS/ANNUM REDUCTION CREDITED								Project Category
					FULL	SCALED- BACK	UNDER- WAY	REM			2009		2010		2020		2030		
											PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	PM _{2.5}	Precursor NOx	
221	X	1995-00 TIP	REGION	M-24 Speed Limit Adherence					2010		2.1291	91.1773	2.1107	81.9913	2.1290	22.0415	0.7899	6.9136	TR
222		1996-01 TIP	MGC	Rock Spring Park Pedestrian Amenities				X			0.0311	1.3332	0.0309	1.1989	0.0000	0.0000	0.0000	0.0000	-
223	X	1996-01 TIP	MGC	Olney Transit Center Park and Ride					2015		0.0623	2.6664	0.0617	2.3977	0.0536	0.5552	0.0146	0.1281	C
224	X	1996-01 TIP	MGC	Damascus Park and Ride						2003	0.0311	1.3332	0.0309	1.1989	0.0268	0.2776	0.0073	0.0641	C
225	X	1996-01 TIP	DC	M-103 Taxicab Replacement (DC)					2015		0.0000	0.0000	0.0000	0.0000	5.2954	54.8227	12.5745	110.0623	H
226	X	STADIUM ANALYSIS		M-103 Taxicab Replacement (MD)				X	2008		0.0000	0.0000	0.0000	0.0000	4.2363	43.8582	5.0298	44.0249	H
227	X	1997-02 TIP	MDOT	Shady Grove West Transit Center Park and Ride				X			0.0778	3.3329	0.0772	2.9972	0.0670	0.6940	0.0183	0.1602	C
228	X	1997-02 TIP	MGC	Olney Transit Center Park and Ride					2015		0.0000	0.0000	0.0000	0.0000	0.0220	0.2277	0.0146	0.1281	C
229	X	1997-02 TIP	MGC	White Oak Park and Ride					2008		0.1557	6.6659	0.1543	5.9943	0.1341	1.3879	0.0366	0.3204	C
230	X	1997-02 TIP	MGC	Damascus Park and Ride						2003	0.0000	0.0000	0.0000	0.0000	0.0082	0.0854	0.0055	0.0481	C
231	X	1997-02 TIP	MGC	Four Corners Transit Center					2015		0.0078	0.3333	0.0077	0.2997	0.0067	0.0694	0.0018	0.0160	C
232		1997-02 TIP	MGC	Burtonsville Transit Center				X			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-
233	X	1997-02 TIP	MGC	Silver Spring Transit Access							0.0078	0.3333	0.0077	0.2997	0.0055	0.0569	0.0037	0.0320	C
234	X	1997-02 TIP	MGC	Shady Grove Parking Construction						2003	0.1479	6.3326	0.1466	5.6946	0.1274	1.3185	0.0348	0.3043	C

PLAN TOTAL	0.4125	108.8419	0.4089	97.8762	5.6797	80.8429	12.6934	118.0171
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GRAND TOTAL (Current Measures + CLRP plan)	25.172	1259.012	24.955	1132.215	21.382	265.439	27.793	269.013
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DEFINITIONS: Project Numbers implemented fully prior to 2000 were removed from the TERM Tracking Sheet

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 total 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

IV. CONSULTATION

The November 1993 regulations identified specific requirements and processes for consultation on an interagency basis and with the public. The requirements addressed consultation as regards the preparation of state air quality implementation plans (SIP)s as well as conformity determinations. The regulations stated that in addition to establishing these procedures for the future, reasonable opportunity for consultation must be provided for current conformity assessments.

To address these requirements, the TPB began discussion of an appropriate approach starting in January 1994. Consultation agencies were identified as the Environmental Protection Agency (EPA), Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and the Metropolitan Washington Air Quality Committee (MWAQC) and its member agencies.

Following a series of work sessions, public forums, comments and correspondence with the consultation agencies and the public, the TPB developed and adopted a set of procedures to fully address all requirements. The procedures involve invitations to the public and the consultation agencies to attend and become involved in all TPB matters regarding transportation conformity. Similarly, over the past few years the TPB has expanded the opportunity for public involvement through a series of new initiatives. Examples include: the public comment period at the start of each TPB meeting; regular public forums and workshops on major topics; a monthly newsletter; the institution of the Citizens Advisory Committee. The procedures have been summarized into a report called the TPB Participation Plan (Reference 11).

The TPB adopted the original set of procedures on September 21, 1994 and staff has subsequently executed them. In the August 15, 1997 amendments to its conformity regulations, EPA established additional requirements regarding consultation. Accordingly, COG/TPB staff, in consultation with MWAQC, appropriate federal agencies and the public, prepared draft updates to the TPB procedures. Following an extensive review and comment period, the TPB adopted revised consultation procedures (Reference 4), which were followed throughout the preparation of the 2009 CLRP and the FY2010-2015 TIP. Exhibit 26 lists the original schedule for these public involvement/consultation opportunities throughout the year. Additional materials are contained as Appendix C.



Exhibit 26

Schedule for the 2009 Financially Constrained Long-Range Transportation Plan (CLRP) and FY 2010-2015 Transportation Improvement Program (TIP)

September 11, 2008	TPB Citizen Advisory Committee Hosts a Public Meeting on the TIP and CLRP Development Process
*September 17, 2008	TPB is Briefed on Draft Call for Projects
*October 15, 2008	TPB Releases Final Call for Projects-- Transportation Agencies Begin Submitting Project Information through On-Line Database
December 5, 2008	DEADLINE: Transportation Agencies Complete Submission of Draft On-Line Project Inputs. Technical Committee Reviews Draft Plan and TIP Project Submissions and Draft Scope of Work for the Air Quality Conformity Assessment
January 9, 2009	Tech Committee Reviews Plan and TIP Project Submissions and Draft Scope of Work
January 15, 2009	Plan and TIP Project Submissions and Draft Scope of Work Released for Public Comment
*January 28, 2009	TPB is Briefed on Project Submissions and Draft Scope of Work
February 14, 2009	Public Comment Period Ends
*February 18, 2009	TPB Reviews Public Comments and is asked to Approve Project Submissions and Draft Scope of Work
April 24, 2009	<u>DEADLINE:</u> Transportation Agencies Complete TIP Project Submissions and Finalize Congestion Management Documentation Forms (where needed) and CLRP Forms ¹ . (Submissions must not impact conformity inputs; note that the deadline for conformity inputs was December 5, 2008).
*May 20, 2009	TPB Receives Status Report on the Draft Plan, TIP and Conformity Assessment
June 11, 2009	Draft Plan, TIP and Conformity Assessment Released for Public Comment at Citizens Advisory Committee (CAC) and the TPB Citizen Advisory Committee Hosts a Public Meeting on the Draft TIP.
*June 17, 2009	TPB Briefed on the Draft Plan, TIP and Conformity Assessment
July 11, 2009	Public Comment Period Ends
*July 15, 2009	TPB Reviews Public Comments and Responses to Comments, and is Presented the Draft Plan, TIP and Conformity Assessment for Adoption
*TPB Meeting	

¹ By this date, the CLRP forms must include information on the Planning Factors, Environmental Mitigation, Congestion Management Information, and Intelligent Transportation Systems; separate Congestion Management Documentation Forms (where needed) must also be finalized.

V. CONFORMITY ASSESSMENT - CRITERIA AND PROCEDURES

EPA's conformity regulations identify criteria and procedures for the determination of conformity. These regulations vary according to pollutants and to different actions being considered and according to the time period and the area's standing with EPA in terms of meeting SIP milestone requirements. The January 24, 2008 amendments to EPA's regulations represent the current transportation conformity requirements. The following sections indicate: (1) the appropriate sections of the regulations which must be adhered to in this conformity analysis, and (2) the manner in which the regulations have been met.

A. CONFORMITY CRITERIA

This section identifies the criteria (sections of the regulations) which the CLRP and TIP must meet in order to conform to current implementation plans in the District of Columbia, Maryland and Virginia. Exhibit 27 lists all sections of the regulations relevant at this time to assessment of the 2009 CLRP and the FY2010-2015 TIP. The following discussion indicates the manner in which each criterion was met.

B. RELATIONSHIP TO CRITERIA

Sec. 93.110 Criteria and procedures: Latest planning assumptions.

The conformity assessment is based upon the most current planning assumptions available for the Washington region. Round 7.2 Cooperative Forecasts were approved by the Metropolitan Development Policy Committee in 2009. These forecasts were developed and reviewed with an explicit perspective on transportation and land use interaction.

Travel demand modeling methods incorporating the latest travel time refinements were used in this study. Other refinements include development and use of a comprehensive set of transit and HOV networks. As with previous conformity analyses, transit fares are modeled explicitly in the modal choice process. The analysis includes actual fares for the base year simulation, with forecast year fares based on current (January, 2009) fares with increases through time as a function of increases in the consumer price index. Base year fares are modeled to reflect the WMATA tariff and other actual charges levied by each transit provider; the updated fare tariffs provided the basis for future analysis years. Transit operating policies, such as hours and frequency of service, are updated annually and modeled explicitly to reflect actual conditions in the peak

Exhibit 27

Conformity Criteria

All Actions at all times:

Sec. 93.110	Latest planning assumptions.
Sec. 93.111	Latest emissions model.
Sec. 93.112	Consultation.
Transportation Plan:	
Sec. 93.113(b)	TCMs.
Sec. 93.118 and/or	Emissions budget and /or Interim
Sec. 93.119	emissions.
TIP:	
Sec. 93.113(c)	TCMs.
Sec. 93.118 and/or	Emissions budget and /or Interim
Sec. 93.119	emissions.

Project (From a Conforming Plan and TIP):

Sec. 93.114	Currently conforming plan and TIP.
Sec. 93.115	Project from a conforming plan and TIP.
Sec. 93.116	CO, PM ₁₀ , and PM _{2.5} hot spots.
Sec. 93.117	PM ₁₀ and PM _{2.5} control measures.

Project (Not From a Conforming Plan and TIP):

Sec. 93.113(d)	TCMs.
Sec. 93.114	Currently conforming plan and TIP.
Sec. 93.116	CO, PM ₁₀ , and PM _{2.5} hot spots.
Sec. 93.117	PM ₁₀ and PM _{2.5} control measures.
Sec. 93.118 and/or	Emissions budget and/or Interim
Sec. 93.119	emissions

and off-peak hours. The overall travel demand modeling process is continually monitored and refined as needed to reflect changing conditions, whether related to travel patterns, TERM effectiveness or other changes, as new data become available.

Sec. 93.111 Criteria and procedures: Latest emissions model.

The current analysis used MOBILE6.2, the latest emission factor model specified by EPA for use in preparation of state implementation plans and conformity assessments.

Sec. 93.112 Criteria and procedures: Consultation.

As discussed in Chapter IV, appropriate and extensive interagency and public consultation procedures have been followed throughout this analysis.

Sec. 93.113 Criteria and procedures: Timely implementation of TCMs.

The policy element of the 2009 CLRP specifically addresses the implementation of projects and measures designed to achieve air quality attainment goals. Previous TIPs contained CMAQ-funded TERMS and TCM projects which are elements of the regional ozone attainment plan. As a means of addressing this section of the conformity regulations, implementing agencies prepared progress reports on the implementation status of each of these projects. Appendix I contains the responses from each implementing agency, which document the implementation progress. Some are subject to normal delays associated with the programming process.

Exhibit 28 summarizes funding totals by category in the Annual Element of the FY2010-2015 TIP. As seen in the table, greater than 40% of programmed expenditures address transit, ridesharing and bikeways.

EXHIBIT 28

FUNDING CATEGORIES IN THE ANNUAL ELEMENT OF THE FY2010-2015 TIP

CATEGORY	TOTAL ANNUAL ELEMENT COST (000's)
Transit	\$ 1,662,770
Highway	\$ 1,769,130
Ridesharing	\$ 5,790
Bikeways	\$ 22,830
CMAQ, TERMS, Enhancements	\$ 562,280
TOTAL	\$ 4,022,800

Sec. 93.114 Criteria and procedures: Currently conforming transportation plan and TIP.

There is a currently conforming plan and program in the Washington region. This current conformity analysis is designed to update and supersede the (conforming) FY2009-2014 TIP and the (conforming) 2008 CLRP, adopted by the TPB in November, 2008.

Sec. 93.115 Criteria and procedures: Projects from a plan and TIP.

All projects advanced for implementation will come from a conforming plan and program.

Sec. 93.116 Criteria and procedures: Localized CO and PM₁₀ violations (hot spots).

Any project advanced to the FY2010-2015 TIP must first have met this criterion as an element of its environmental study. (The Washington area is now in attainment for both carbon monoxide and PM₁₀.)

Sec. 93.117 Criteria and procedures: Compliance with PM₁₀ and PM_{2.5} control measures.

The Washington area is in attainment for PM₁₀. Per PM_{2.5} requirements, a SIP for the Washington nonattainment area was developed and submitted to EPA in April, 2008.

93.118 Motor vehicle emissions budget

As discussed in Chapter II, part B, this analysis includes use of the: (1) existing 1-hour ozone budgets as well as the budgets developed as part of the 8-hour ozone SIP, and (2) direct PM_{2.5} and precursor NO_x emissions budgets contained in the April 2008 PM_{2.5} SIP submittal which are awaiting EPA's approval or adequacy finding for use in conformity. As discussed in Chapter III, total VOC, NO_x, PM_{2.5}, and CO emissions for all program and plan milestone analysis years are within their respective emissions budgets.

Sec. 93.119 Criteria and procedures: Interim emissions in areas without motor vehicle budgets

The forecast year PM_{2.5} pollutant emissions are below those of the 2002 base year.

NOTE: See EPA's conformity regulations for the full text associated with each section's requirements.

VI. FINDINGS

The analytical results described above provide a basis, in relation to US EPA conformity regulations, for a determination of conformity of the year 2009 Constrained Long Range Plan and the FY2010-2015 Transportation Improvement Program for The Washington Metropolitan Region, with requirements of the Clean Air Act Amendments of 1990.

APPENDIX A

Air Quality Conformity Scope of Work

**AIR QUALITY CONFORMITY ASSESSMENT:
2009 CONSTRAINED LONG RANGE PLAN AMENDMENTS AND
FY2010-2015 TRANSPORTATION IMPROVEMENT PROGRAM**

SCOPE OF WORK

I. INTRODUCTION

Projects solicited for the 2009 Constrained Long Range Plan (CLRP) and the FY2010-2015 Transportation Improvement Program (TIP) are scheduled to be finalized at the February 18, 2009 TPB meeting. This scope of work reflects the tasks and schedule designed for the air quality conformity assessment leading to adoption of the plan and program on July 15, 2009. This work effort addresses requirements associated with attainment of the 8-hour ozone standard (volatile organic compounds (VOC) and nitrogen oxides (NO_x) as ozone precursor pollutants), and fine particles (PM_{2.5}) standards (direct particles and precursor NO_x), as well as maintenance of the wintertime carbon monoxide (CO) standard.

The plan and program must meet air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on January 24, 2008, and (3) as detailed in periodic FHWA / FTA and EPA guidance. These regulations specify both technical criteria and consultation procedures to follow in performing the assessment.

This scope of work provides a context in which to perform the conformity analyses and presents an outline of the work tasks required to address all regulations currently applicable.

II. REQUIREMENTS AND APPROACH

A. Criteria (See Exhibit 1)

As described in the 1990 Clean Air Act Amendments, conformity is demonstrated if transportation plans and programs:

1. Are consistent with most recent estimates of mobile source emissions,
2. Provide expeditious implementation of TCMs, and
3. Contribute to annual emissions reductions.

Assessment criteria for ozone, CO, and PM_{2.5} are discussed below.

Ozone season pollutants will be assessed by comparing the “action” scenarios to both the existing 1-hour VOC and NO_x emissions budgets, as well as “new” 8-hour budgets contained in the State Implementation Plan (SIP) submitted by the Metropolitan Washington Air Quality Committee (MWAQC) to EPA in June 2007.

The region is in maintenance for mobile source wintertime CO and, as in prior conformity assessments, is required to show that pollutant levels do not exceed the approved budget.

PM_{2.5} pollutants will be assessed both by comparing the “action” scenarios to a 2002 base and by comparing

the pollutant levels to the budgets submitted by the MWAQC to EPA in April, 2008. PM_{2.5} emissions will be inventoried for yearly totals (instead of on a daily basis as performed for Ozone and CO).

B. Approach (See Table 1 – Summary of Technical Approach)

The analytical approach is similar to that applied and documented in the air quality conformity assessment of the 2008 CLRP and the FY2009-2014 TIP. In addition to the highlighted elements below, explicit inputs include: a summary list of major policy and technical input assumptions, shown as Attachment A; and all transportation network elements which will be finalized at the February 18, 2009 TPB meeting.

TABLE 1 – Summary of Technical Approach

	Ozone	Wintertime CO	PM_{2.5}
Pollutant:	VOC, NOx	CO	Direct particles, Precursor NOx
Emissions Assessment Criteria:	Existing 1-hour ozone budgets & 8-hour ozone budgets	Approved wintertime CO emissions budget	Reductions from base 2002 inventory & comparison to budgets
Emissions Analysis Time-frame:	Daily	Daily	Annual
Geography:	1-hour ozone non-attainment area 8-hour ozone non-attainment area (1-hr. area less Stafford)	DC, Arl., Alex., Mont., Pr. Geo.	1-hr. area less Stafford and Calvert counties
Network Inputs:	Regionally significant projects		
Land Activity:	Round 7.2		
Modeled Area:	Expanded Cordon (2191 zone)		
Travel Demand Model:	Version 2.2		
Mobile Model:	MOBILE6.2 emissions factors, consistent with the procedures utilized to establish the VOC and NOx mobile source emissions budgets	MOBILE6.2 Consistent with procedures used to establish the budget	MOBILE6.2 'Seasonal' approach, consistent with procedures used to establish the budget
Emissions Factor Refinements:	Use of 2008 vehicle registration data for all jurisdictions		

III. CONSULTATION

1. Execute TPB consultation procedures (as outlined in the consultation procedures report adopted by the TPB on May 20, 1998).
2. Participate in meetings of MWAQC, its Technical Advisory Committee and its Conformity Subcommittee to discuss the scope of work activities, TERM development process, and other elements as needed; discuss at TPB meetings or forums, as needed, the following milestones:
 - CLRP / TIP Call for Projects
 - Scope of work
 - TERM proposals
 - Project submissions: documentation and comments

- Analysis of TERMS, list of mitigation measures
- Conformity assessment: documentation and comments
- Process: comments and responses

IV. WORK TASKS

1. Receive project inputs from programming agencies and organize into conformity documentation listings (endorsement of financially constrained project submissions scheduled for February 18, 2009)
 - Project type, limits, NEPA approval, etc.
 - Phasing with respect to forecast years
 - Transit operating parameters, e.g. schedules, service, fares
 - Action scenarios
2. Utilize Round 7.2 Cooperative Forecasts
 - Households by auto ownership, population and employment
 - Zonal data files
3. Prepare forecast year highway, HOV, and transit networks
 - Update GIS highway database
 - Filter database to create 2010, 2020, and 2030 highway networks
 - Rebuild networks for modeling
 - Update / edit transit files
 - Update fares, as necessary
4. Prepare 2002 travel, emissions factors and emissions estimates, if necessary (i.e., if land-use inputs change)
 - Execute travel demand modeling
 - Develop Mobile6.2 emission factors
 - Calculate emissions (daily for ozone season VOC and NOx; yearly for PM_{2.5} direct particles and precursor NOx)
5. Prepare 2010 travel and emissions estimates
 - Execute travel demand modeling
 - Develop Mobile6.2 emission factors
 - Calculate emissions (daily for ozone season VOC and NOx for ozone standard requirements; daily for winter CO; yearly for PM_{2.5} direct particles and precursor NOx)
6. Prepare 2020 travel and emissions estimates
 - Tasks as in year 2010 analysis

7. Prepare 2030 travel and emissions estimates
 - Tasks as in year 2020 analysis
 - Apply “transit constraint” using 2020 levels.
8. Identify extent to which TIP and plan provide for expeditious implementation of TCMs contained in ozone state implementation plans and emissions mitigation requirements of previous TIP and CLRP commitments (TERMs)
 - In the CLRP / TIP Call for Projects document staff identified previous TCM and TERM commitments and requested a status report from the implementing agencies
 - Staff will review these reports as they are received and update the TERM tracking sheet that was included in the November 19, 2008 air quality conformity report
 - The status reports and the updated TERM tracking sheet will be included in the air quality conformity report.
9. Coordinate / analyze emissions reductions associated with CMAQ and similar projects
 - Obtain project-specific emissions reductions from programming agencies
 - Summarize daily ozone season VOC and NO_x reductions for each milestone year
 - Summarize annual direct PM_{2.5} and precursor NO_x PM_{2.5} pollutant reductions; explore additional TERMS
 - With oversight from the Travel Management Subcommittee, as needed, propose and analyze additional measures for their emissions benefits, costs, cost effectiveness, and other evaluation criteria
10. Analyze results of above technical analysis
 - Reductions from 1990 (ozone season VOC and NO_x and winter CO) and 2002 base (ozone season VOC and NO_x, winter CO, and PM_{2.5})
 - 1-hour and 8-hour ozone season VOC and NO_x budgets, direct PM_{2.5} and precursor NO_x budgets, and winter CO emissions budgets
 - With oversight from the Travel Management Subcommittee, the Technical Committee and the TPB, identify and recommend additional measures should the plan or program fail any test and incorporate measures into the plan
11. Assess conformity and document results in a report
 - Document methods
 - Draft conformity report
 - Forward to technical committees, policy committees
 - Make available for public and interagency consultation
 - Receive comments
 - Address comments and present to TPB for action
 - Finalize report and forward to FHWA, FTA and EPA

V. SCHEDULE

The schedule for the execution of these work activities is shown in Exhibit 2. The time line shows completion of the analytical tasks, preparation of a draft report, public and interagency review, response to comments and action by the TPB on July 15, 2009.

Exhibit 1

Conformity Criteria

All Actions at all times:

Sec. 93.110	Latest planning assumptions.
Sec. 93.111	Latest emissions model.
Sec. 93.112	Consultation.

Transportation Plan:

Sec. 93.113(b)	TCMs.
Sec. 93.118 and/or	Emissions budget and /or Interim
Sec. 93.119	emissions.

TIP:

Sec. 93.113(c)	TCMs.
Sec. 93.118 and/or	Emissions budget and /or Interim
Sec. 93.119	emissions.

Project (From a Conforming Plan and TIP):

Sec. 93.114	Currently conforming plan and TIP.
Sec. 93.115	Project from a conforming plan and TIP.
Sec. 93.116	CO, PM ₁₀ , and PM _{2.5} hot spots.
Sec. 93.117	PM ₁₀ and PM _{2.5} control measures.

Project (Not From a Conforming Plan and TIP):

Sec. 93.113(d)	TCMs.
Sec. 93.114	Currently conforming plan and TIP.
Sec. 93.116	CO, PM ₁₀ , and PM _{2.5} hot spots.
Sec. 93.117	PM ₁₀ and PM _{2.5} control measures.
Sec. 93.118 and/or	Emissions budget and/or Interim
Sec. 93.119	emissions

Sec. 93.110 Criteria and procedures: Latest planning assumptions.

The conformity determination must be based upon the most recent planning assumptions in force at the time of the conformity determination.

Sec. 93.111 Criteria and procedures: Latest emissions model.

The conformity determination must be based on the latest emission estimation model available.

Sec. 93.112 Criteria and procedures: Consultation.

Conformity must be determined according to the consultation procedures in this subpart and in the applicable implementation plan, and according to the public involvement procedures established in compliance with 23 CFR part 450.

Sec. 93.113 Criteria and procedures: Timely implementation of TCMs.

The transportation plan, TIP, or any FHWA/FTA project which is not from a conforming plan and TIP must provide for the timely implementation of TCMs from the applicable implementation plan.

Sec. 93.114 Criteria and procedures: Currently conforming transportation plan and TIP.

There must be a currently conforming transportation plan and currently conforming TIP at the time of project approval.

Sec. 93.115 Criteria and procedures: Projects from a plan and TIP.

The project must come from a conforming plan and program.

Sec. 93.116 Criteria and procedures: Localized CO, PM₁₀, and PM_{2.5} violations (hot spots).

The FHWA/FTA project must not cause or contribute to any new localized CO, PM₁₀, and/or PM_{2.5} violations or increase the frequency or severity of any existing CO, PM₁₀, and /or PM_{2.5} violations in CO, PM₁₀, and PM_{2.5} nonattainment and maintenance areas.

Sec. 93.117 Criteria and procedures: Compliance with PM₁₀ and PM_{2.5} control measures.

The FHWA/FTA project must comply with PM₁₀ and PM_{2.5} control measures in the applicable implementation plan.

Sec. 93.118 Criteria and procedures: Motor vehicle emissions budget

The transportation plan, TIP, and projects must be consistent with the motor vehicle emissions budget(s).

Sec. 93.119 Criteria and procedures: Interim emissions in areas without motor vehicle budgets

The FHWA/FTA project must satisfy the interim emissions test(s).

NOTE: See EPA's conformity regulations for the full text associated with each section's requirements.



Exhibit 2

Schedule for the 2009 Financially Constrained Long-Range Transportation Plan (CLRP) and FY 2010 – 2015 Transportation Improvement Program (TIP)

September 11, 2008	TPB Citizen Advisory Committee Hosts a Public Meeting on the TIP and CLRP Development Process
*September 17, 2008	TPB is Briefed on Draft Call for Projects
*October 15, 2008	TPB Releases Final Call for Projects-- Transportation Agencies Begin Submitting Project Information through On-Line Database
December 5, 2008	<u>DEADLINE:</u> Transportation Agencies Complete Submission of Draft On-Line Project Inputs. Technical Committee Reviews Draft Plan and TIP Project Submissions and Draft Scope of Work for the Air Quality Conformity Assessment
January 9, 2009	Tech Committee Reviews Plan and TIP Project Submissions and Draft Scope of Work
January 15, 2009	Plan and TIP Project Submissions and Draft Scope of Work Released for Public Comment
*January 28, 2009	TPB is Briefed on Project Submissions and Draft Scope of Work
February 14, 2009	Public Comment Period Ends
*February 18, 2009	TPB Reviews Public Comments and is asked to Approve Project Submissions and Draft Scope of Work
April 24, 2009	<u>DEADLINE:</u> Transportation Agencies Complete TIP Project Submissions and Finalize Congestion Management Documentation Forms (where needed) and CLRP Forms ¹ . (Submissions must not impact conformity inputs; note that the deadline for conformity inputs was December 5, 2008).
*May 20, 2009	TPB Receives Status Report on the Draft Plan, TIP and Conformity Assessment
June 11, 2009	Draft Plan, TIP and Conformity Assessment Released for Public Comment at Citizens Advisory Committee (CAC) and the TPB Citizen Advisory Committee Hosts a Public Meeting on the Draft TIP.
*June 17, 2009	TPB Briefed on the Draft Plan, TIP and Conformity Assessment
July 11, 2009	Public Comment Period Ends
*July 15, 2009	TPB Reviews Public Comments and Responses to Comments, and is Presented the Draft Plan, TIP and Conformity Assessment for Adoption

¹ By this date, the CLRP forms must include information on the Planning Factors, Environmental Mitigation, Congestion Management Information, and Intelligent Transportation Systems; separate Congestion Management Documentation Forms (where needed) must also be finalized.

WORK SCOPE ATTACHMENT A

POLICY AND TECHNICAL INPUT ASSUMPTIONS AIR QUALITY CONFORMITY ANALYSIS OF 2009 CLRP AND FY2010-2015 TIP

1. Land Activity

- Round 7.2 Cooperative Forecasts

2. Policy and Project Inputs

- Highway, HOV and transit projects and operating parameters
- Financially constrained project submissions to be advanced by the TPB on 2/18/2009

3. Travel Demand Modeling Methods

- Version 2.2 Travel Model (as refined in preparation of 2008 CLRP / FY2009 TIP)
- All HOV facilities at HOV-3 in 2020
- Transit “capacity constraint” procedures (2020 constrains later years)

4. Emissions Factors

- Develop MOBILE6.2 emissions factors using 2008 vehicle registration data
- Seasonal PM_{2.5} factors for total directly emitted particles and precursor NO_x
- No oxygenated fuels assumed for wintertime carbon monoxide conditions

5. Emissions Modeling Methods / Credits

- Yearly PM_{2.5} emissions (total PM_{2.5} and precursor NO_x) using seasonal traffic adjustments and above emissions factors
- Offline emissions analyses

6. Conformity Assessment Criteria

- Emissions budgets for ozone precursors, PM_{2.5} pollutants, and wintertime CO
- Analysis years: 2010, 2020, and 2030

APPENDIX B

List of Project Inputs

Key to the Air Quality Conformity Table:

COLUMN 1:

Agency - identification of submitting agency

COLUMN 2:

Project ID - project identification number (for reference purposes)

COLUMN 3:

Type of improvement - defined as follows:

Construct	=	build a new facility
Widen	=	increase the number of lanes on an existing facility
Upgrade	=	improve the facility type of a roadway
Relocate	=	construct an existing facility on a new right-of-way
Reconstruct	=	modify an existing facility with no capacity increase i.e., shoulder paving, geometric improvements
Rehabilitate	=	repair existing structures - no capacity increase
Study	=	to review alternative transportation improvements- project planning or preliminary engineering only

COLUMN 4:

Environmental Review (NEPA) - status of the environmental review

The National Environmental Policy Act (NEPA) requires a study to determine the environmental impact of all transportation projects that involve federal approvals. The type of environmental review is determined by the scope of the project. Projects cannot be constructed until the appropriate review has been approved by federal agencies. The environmental review status in column 4 is defined as follows:

Approved	=	The project has received approval from the appropriate federal agency and may be constructed
Pending	=	The project is under study and is undergoing environmental review, or has not yet begun environmental review.
N/A	=	Projects that do not require federal approvals.

COLUMN 5:

Facility - name of facility to be studied or improved

COLUMNS 6 and 7:

From and To - limits of the project

COLUMN 8:

Facility Type - defined as follows:

- 1 = Interstate
- 2 = Major Arterial
- 3 = Minor Arterial
- 4 = Collector
- 5 = Expressway or Freeway with at-grade intersections

If a facility is being upgraded, the old facility type is in the "from" column, and the new facility type is in the "to" column. If the facility is not being upgraded, the "from" and "to" columns are the same.

COLUMN 9:

Number of Lanes - same explanation of "from" and "to " columns as above

COLUMN 10:

Currently under construction or right-of-way acquired? -

- "yes" = the facility is currently under construction and/or right-of-way has been acquired
- "no" = the facility is not currently under construction and right-of-way has not been acquired
- "completed" = the facility is open for use

COLUMN 11:

Project Completion Date or Status - date project will be open for use.
"not coded" indicates that project is not included in the conformity analysis

COLUMN 12:

In TIP - Indicates if the project is included in the TIP

National Capital Region Transportation Planning Board

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MEMORANDUM

February 11, 2009

TO: Transportation Planning Board

FROM: Ronald F. Kirby
Director, Department of
Transportation Planning

RE: Proposed Significant Changes to the 2009 Constrained Long-Range Plan and the
FY 2010-2015 Transportation Improvement Program for Air Quality Conformity Analysis

On Thursday, January 15, 2009 the TPB released for public comment the draft project inputs for the air quality analysis of the 2009 update to the National Capital Region's Financially Constrained Long-Range Transportation Plan (CLRP) and the FY 2010-2015 Transportation Improvement Program (TIP). The TPB also released the Draft Scope of Work for the Air Quality Conformity Assessment. Comments can be submitted and reviewed online at www.mwcog.org/tpbpubliccomment. The 30-day public comment period will close at midnight on Saturday, February 14, 2009.

Beginning on page 2 is a list of proposed significant changes to the 2009 CLRP and the FY 2010-2015 TIP. This listing covers changes only to those projects that are considered to be regionally significant, i.e., interstates, principal arterials and some minor arterials, as well as transit facilities. A complete list of all projects planned is included in Attachment B – the Draft 2009 CLRP and FY 2010-2015 TIP Air Quality Conformity Inputs.

In contrast to previous years, there are no significant new projects being added to this year's CLRP update. With state and local budgets facing drastic shortfalls, most of the changes proposed will delay the completion dates of those projects and in some cases, remove projects from the plan altogether. The projects in each jurisdiction below have been grouped together based on the nature of the change; a delay of five to nine years, a delay of ten years or more, or removal from the Plan. Other changes to regionally significant projects in Virginia can be found on page 3. Projects that are delayed less than five years and changes to non-regionally significant projects can be found in Attachment B. A map number is included in the list to help locate affected projects on the maps of major projects in the CLRP in Attachment A.

District of Columbia

Projects delayed five to nine years

- K Street Busway

Old Date	New Date	Map #
2010	2017	2*

Maryland

Projects delayed five to nine years

- I-95/I-495 Interchange at Greenbelt Metro
- MD 5 Branch Avenue, construct interchanges at Surratts Road, Earnshaw Drive/Burch Hill Road, and MD 373/Brandywine Road
- US 29 Columbia Pike, upgrade interchange at Musgrove/Fairland Road

2010	2015	13
2010	2015	35
2010	2015	46

Projects delayed 10 years or more

- I-270/US 15 Corridor, construct from Shady Grove Metro to I-70
- I-95/I-495 Branch Avenue Metro Access, construct eight lanes
- MD 2/4, construct three lanes from MD 765 to MD 2/4 at Lusby (Calvert County)
- MD 3 Crain Highway, construct four lanes from US 50 to Anne Arundel County Line
- US 29 Columbia Pike, upgrade six lanes from Musgrove Road to Fairland Road
- US 29 Columbia Pike, upgrade interchanges at Stewart Lane, Tech Road, Greencastle Road and Blackburn Road
- MD 97 Brookville Bypass, construct two lanes from south to north of Brookeville

2020	2030	8
2009	2020	14
2010	2020	not mapped
2020	2030	29
2010	2030	46
2020	2030	46
2020	2030	37

Projects removed from the Plan

- Randolph Road Bus Enhancement

2010		6*
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Virginia

Projects delayed five to nine years

- I-66 HOV, widen to six lanes from US 15 to US 29
- Dulles Airport Access Road, widen to six lanes from Dulles Airport to VA 123
- US 50, widen to six lanes from VA 659 to VA 742
- VA 28, construct interchange at VA 209
- VA 28, widen to eight lanes from I-66 to VA 7
- US 1, widen to six lanes from Blackburn Drive to Featherstone Road
- VA 28, widen to four lanes from VA 652 to VA 234
- VA 7, widen to six lanes from Route 9 to Market Street
- VA 7 Bypass, widen to six lanes from US 15 South to VA 7/US 15 East

2015	2020	59
2010	2017	51
2010	2015	84
2009	2015	103
2010	2015	103
2013	2020	72
2012, 2013	2020	101
2015	2020	108
2015	2020, 2025	110

* These projects can be found on Map 2 – Major Transit, HOV and HOT Improvements in the 2008 CLRP.

	Old Date	New Date	Map #
• Tri-County Parkway, construct four lanes from I-66 to Loudoun County Line	2017	2025	105
• VA 28 Bypass, construct four lanes from I-66 to VA 620/VA 613	2020	2025	98
<i>Projects delayed 10 years or more</i>			
• US 1, widen to six lanes from Brady's Hill Road to Cardinal Drive	2011	2020	72
• Fairfax County Parkway, widen to six lanes with two HOV lanes from Fair Lakes Parkway to I-66	2010	2020	111
<i>Proposed changes to other regionally significant projects in Virginia</i>			
• I-95/I-395 HOT/HOV/Bus Lanes Project ○ New northbound ramp at Fairfax County Parkway ○ Southbound slip-ramp modifications and additions near Fairfax County Parkway, Lorton Road, Opitz Boulevard, Dumfries Road and Joplin Road ○ Previously planned 9 mile single-lane taper from VA 234 to VA 610 changed to two HOT lanes with new access ramps, extending from VA 234 to VA 17 in Stafford County (complete in 2014)	2010	2012, 2014	68
• Capital Beltway HOT Lanes Project ○ Additional auxiliary lanes from Dulles Toll Road to VA 7, and from one mile east of I-95/395/495 to north of Hemming Avenue underpass ○ New ramp movements at I-66, US 29, Dulles Toll Road and Dulles Airport Access Road ○ Change lane configuration between VA 193 (Georgetown Pike) and south of Old Dominion Drive from eight general purpose + four HOT lanes to eight g.p. + two HOT lanes			57, 58
• US 1 from VA 234 North to the Prince William Co. Line ○ Downgraded from 'widening to eight lanes' to 'reconstructing six lanes'			72
• Dulles Corridor Metrorail Project – Phase 1	2011	2014	11*

* These projects can be found on Map 2 – Major Transit, HOV and HOT Improvements in the 2008 CLRP.

Attachments

Proposed project listing for the 2009 Plan Update: Major Highway Improvements*

District of Columbia

- 1 11th Street Bridge reconstruction, 2013
- 2 South Capitol Str/Bridge Reconstruction, including intersection with Martin Luther King Jr. Blvd, 2015

Maryland

- 3 Baltimore Washington Parkway at MD 193, Intersection Improvement, 2025
- 4 Cross-County Connector, widen to 4 lanes, 2009
- 5 Father Hurley Blvd. , construct 4 lanes, 2011
- 6 I-270, interchange at Watkins Mill Rd. Ext., 2020
- 7 I-270, reconstruct interchange at MD 121, 2010
- 8 ***I-270/US 15 Corridor, Shady Grove to I-70, widen and HOV, 2030***
- 9 I-70, widen to 6 lanes, 2009
- 10 I-95, interchange and CD lanes at Contee Road , 2020
- 11 I-95, Woodrow Wilson Bridge , build 12 lane bridge, 2009, 2011
- 12 I-95/495, interchange at Arena Drive , 2009
- 13 ***I-95/495, interchange at Greenbelt Metro, 2015***
- 14 ***I-95/495: Branch Avenue Metro Access, construct 8 lanes, 2020***
- 15 Intercounty Connector, construct 6 lanes, 2012
- 16 M-83, construct 4, 6 lanes, 2020
- 17 MD 117, widen to 4 lanes, 2020
- 18 MD 118 (Germantown Rd.), widen to 6 lanes, 2020
- 19 MD 124 extended, construct 2 lanes, 2010
- 20 ***MD 124, widen to 6 lanes, 2010, 2020***
- 21 MD 201/Kenilworth Ave widen to 6 lanes, 2020
- 22 MD 202, reconstruct 6 lanes, 2020
- 23 MD 210, upgrade 6 lanes and interchange improvement, 2030
- 24 MD 212, construct 4 lanes, 2008
- 25 ***MD 223, widen to 4 lanes, 2020***
- 26 MD 27, widen to 6 lanes, 2010
- 27 MD 27, widen, MD-355 to A 305, 2010
- 28 MD 28/MD 198, widen, construct 4, 6 lanes, 2020
- 29 ***MD 3, widen to 6 lanes, 2030***
- 30 MD 355, construct 6 lanes, interchange at Montrose/Randolph Road, 2010
- 31 MD 355/MD 80, Urbana Bypass, construct 4 lanes, 2010
- 32 MD 4, widen to 6 lanes, upgrade with interchanges at Westphalia Road and Suitland Parkway, 2010, 2011, 2020
- 33 MD 450, reconstruct, grade separate at Peace Cross, CSX, 2009
- 34 MD 450, widen to 4 lanes, 2020
- 35 ***MD 5, upgrade, widen to 6 lanes, including interchanges, 2015, 2030***
- 36 MD 85, widen to 4, 6 lanes, 2020
- 37 ***MD 97, construct 2 lanes, 2030***
- 38 MD 97, upgrade intersection at MD 28, 2020

- 39 MD 97, upgrade intersection at Randolph Road , 2015
- 40 Middlebrook Road Extended, widen, construct 6 lanes, 2015
- 41 Montrose Parkway East and West, construct 4 lanes, 2009, 2015
- 42 Randolph Road, widen to 5 lanes, 2011
- 43 Suitland Parkway, interchange at Rena/ Forestville Road, 2025
- 44 US 1, reconstruct 4 lanes, 2020, widen to 6 lanes, 2010
- 45 US 15, construct interchange at Monocacy Blvd, 2010
- 46 ***US 29, upgrade, including intersections/interchanges, 2015, 2020, 2030***
- 47 US 301, widen to 6 + 2 lanes, 2020
- 48 US 340/US 15, construct interchange at Jefferson Tech Park, 2010
- 49 US 50, westbound ramp to Columbia Park Road , 2025

Virginia

- 50 Battlefield Parkway, construct, widen, upgrade 4 lanes, 2008, 2009, 2010
- 51 Dulles Access Road, widen to 6 lanes including interchange reconstruct at I-495, 2010
- 52 Dulles Toll Road, reconstruct interchange at VA 674, 2012
- 53 Fairfax County Parkway HOV, construct 2 lanes, 2015
- 54 Fairfax County Parkway HOV, widen and upgrade, 6 to 8 lanes, 2010, 2015
- 55 Fort Belvoir EPG access improvements, interchanges on Fairfax County Parkway, 2010, 2020
- 56 Franconia/Springfield Parkway, HOV with interchange at Nueman Street, 2010, 2020
- 57 I-495 High Occupancy/Toll (HOT) lanes, Transit Service, 2013, 2030
- 58 ***I-495, construct 2 HOT lanes, 2030***
- 59 ***I-66 HOV, includes interchange reconstruction at US 15, 2020***
- 60 I-66 HOV, widen to 8 lanes, 2009
- 61 I-66, spot improvements inside the Beltway, 2013
- 62 I-66, reconstruct interchange at US 29, 2014
- 63 I-66/I-495, reconstruct interchange, 2013
- 64 I-66, widen at Gallows Road and Cedar Lane, 2030
- 65 I-95, interchange at VA 7900, 2015
- 66 I-95, reconstruct interchange at VA 642, 2010
- 67 I-95, widen to 8 lanes from Newington to VA 123, 2011
- 68 I-95/395 HOT Lanes, widen, construct 2, 3 lanes with new ramps, 2012, 2014
- 69 I-95/495, reconstruct interchange at VA 613, 2015
- 70 I-95/I-395/I-495, interchange access ramps to I-495 HOT, 2013
- 71 US 1, reconstruct interchange at Russell Road , 2010

- 72 ***US 1, widen to 6 lanes including interchange at VA 123, 2010,2011, 2015, 2016, 2017, 2020***
- 73 ***US 15, widen to 4 lanes, 2009, 2030***
- 74 US 15, widen to 4 lanes, 2015
- 75 ***US 15 Bypass, interchange at Edwards Ferry Road, 2020***
- 76 US 29, interchange at VA 55, 2014
- 77 US 29, widen to 5, 6 lanes, 2014
- 78 US 29, widen to 6 lanes, 2010
- 79 US 29, widen to 6 lanes, 2009, 2010, 2011
- 80 US 29, widen to 6 lanes, 2015, 2020
- 81 US 29, widen to 6 lanes, 2010
- 82 US 50, construct round-about at US 15, 2010
- 83 US 50, widen 3, 8 lanes, 2020
- 84 ***US 50, widen to 6 lanes, 2012, 2015***
- 85 US 50, widen/reconstruct 6 lanes including interchanges, 2010, 2012, 2015, 2020
- 86 VA 120, reconstruct 2 lanes, 2020
- 87 VA 120, reconstruct 4 lanes, 2010
- 88 VA 123, widen 6 lanes, 2015, 2020
- 89 VA 123, widen to 6 lanes with interchange at US 1, 2008, 2015, 2017
- 90 VA 123, widen to 6 lanes, 2010
- 91 VA 234 Bypass, widen/upgrade, 6 lanes, 2020
- 92 VA 234, widen to 4 lanes, 2011
- 93 VA 234, widen to 5 lanes, 2010
- 94 VA 234, widen, upgrade 4 lanes, including interchange at US 1, 2008, 2016
- 95 VA 236, reconstruct intersection at Braddock Road, 2009
- 96 VA 236, widen to 6 lanes, 2020
- 97 VA 244, reconstruct interchange at VA 27, 2011
- 98 ***VA 28 Bypass, construct 4, 6 lanes, 2020, 2025***
- 99 VA 28, interchange at Wellington Road , RR tracks, 2009
- 100 VA 28, remove movements at I-66, 2008
- 101 ***VA 28, widen to 6 lanes, 2020***
- 102 VA 28, widen to 6 lanes, 2025
- 103 ***VA 28, widen to 6, 8 lanes, with interchanges, 2008, 2015***
- 104 ***VA 3000, widen to 6 lanes, 2020***
- 105 ***VA 411, (Tri-County Parkway), construct 4 lanes, 2025***
- 106 VA 7, Leesburg Pike, widen to 6, 8 lanes, 2012, 2013, 2020
- 107 ***VA 7, construct interchanges, 2009, 2010, 2020***
- 108 ***VA 7, widen to 6 lanes, 2020***
- 109 VA 7, widen to 6 lanes, 2020
- 110 ***VA 7/US 15 Bypass, widen to 6 lanes, 2020, 2025***
- 111 VA 7100, construct 6 lanes, 2010, 2020
- 112 VA 7100, interchange at Fair Lakes Parkway, 2011
- 113 VA 7100, widen to 6 lanes, 2015
- 114 VA 7100, widen to 6 lanes (Hooes Rd to Sydenstricker Rd), 2015
- 115 Wilson Blvd., reconstruct 4 lanes, 2010

Map 1: Major Highway Improvements

Map from the 2008 CLRP Brochure



Proposed project listing for the 2009 Plan Update: Major Transit, High Occupancy Vehicle (HOV) and High Occupancy/Toll (HOT) Improvements*

District of Columbia

- 1 Anacostia Street Car Project Phase I, 2010
- 2 ***K Street Busway, 2017***

Maryland

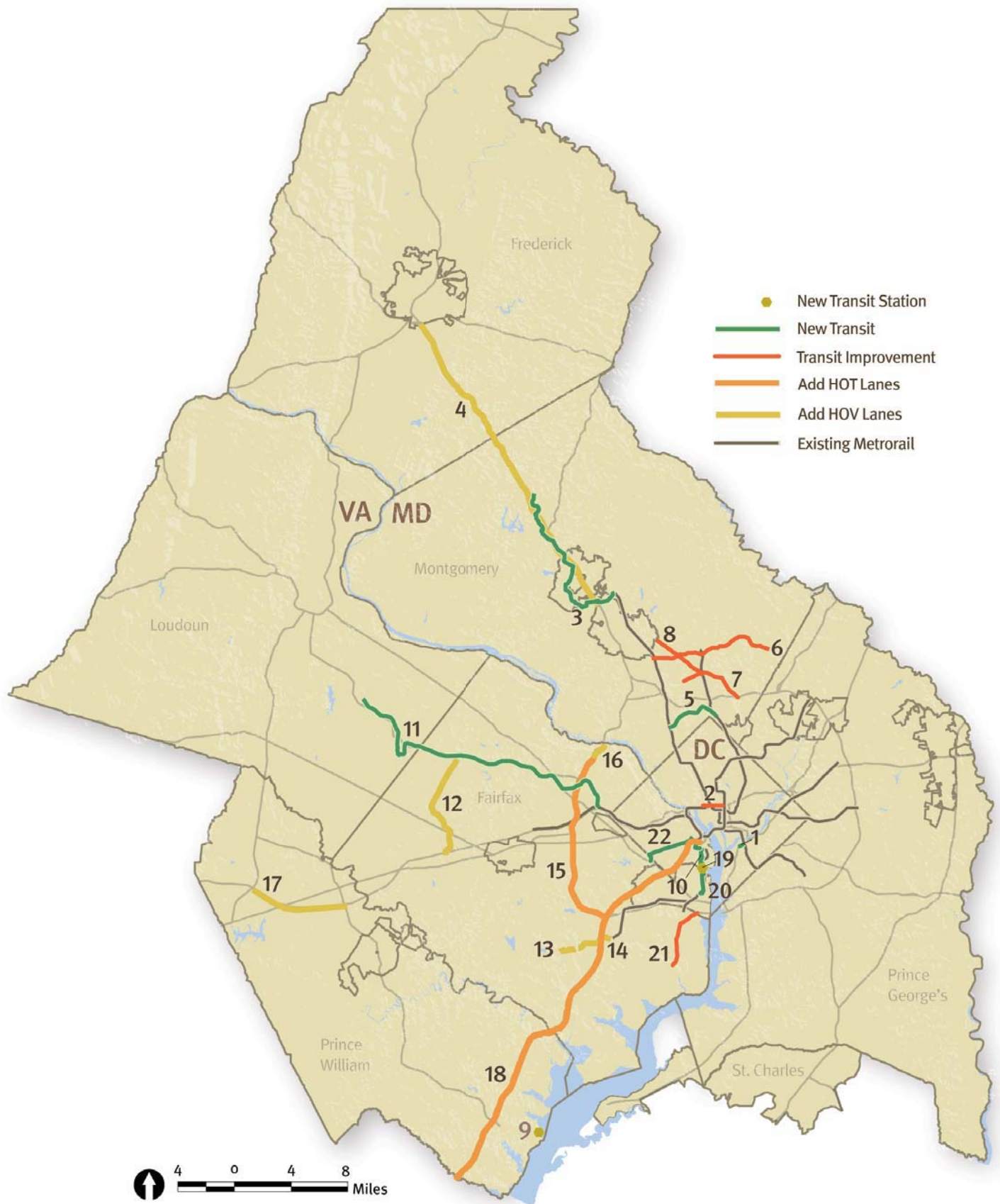
- 3 Corridor Cities Transitway, from Shady Grove to COMSAT, 2016
- 4 I-270/US 15 Corridor, Shady Grove to I-70, HOV, 2030
- 5 Purple Line, Bethesda to Silver Spring, 2015
- 6 ***Randolph Road Bus Enhancements from MD 355 to US 29, to be removed***
- 7 University Blvd Bus Enhancements, 2020
- 8 Veirs Mill Road Bus Enhancements, 2015

Virginia

- 9 Cherryhill VRE Station, 2010
- 10 Crystal City Potomac Yard Busway, 2010
- 11 ***Dulles Corridor Rapid Transit, 2014, 2015***
- 12 Fairfax County Parkway HOV, widen and upgrade, 6 to 8 lanes, 2010, 2015
- 13 Fairfax County Parkway HOV, construct 2 lanes, 2015
- 14 Franconia/Springfield Parkway HOV, 2010, 2020
- 15 I-495 High Occupancy/Toll (HOT) lanes, Transit Service, 2013, 2030
- 16 I-495, construct 2 HOV lanes, 2030
- 17 I-66 HOV, widen to 8-lanes, 2009, includes interchange reconstruction at US 15, 2020
- 18 I-95/395 HOT Lanes, widen, construct 2, 3 lanes with new ramps, 2012, 2014
- 19 Potomac Yard Metro Station, 2030
- 20 Potomac Yard Transitway, Arlington and Alexandria, 2011
- 21 US-1 bus right turn lanes, 2025
- 22 VA 244 Columbia Pike Streetcar from Skyline to Pentagon City, 2016

***Highlighted Projects** are proposed to experience a delay of five years or greater, as compared to the expected completion dates listed in the 2008 Plan.

Map 2: Major Transit, High Occupancy Vehicle (HOV) and High Occupancy/Toll (HOT) Improvements Map from the 2008 CLRP Brochure



2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS (Transit)

Agency	Project ID	Improv.	Facility	From	To	Under Const. or ROW acquired?	Complt. Date or Status
Washington Metropolitan Area Transit Authority							
WMATA		Modify	Revised Metrorail Operating Plan				2010
WMATA		Modify	Revised Metrorail Operating Plan				2011
WMATA		Modify	Revised Metrorail Operating Plan				2015
District of Columbia							
DDOT		Construct	Anacostia Streetcar project Phase I (replaces CSX Shepherd Branch project)	Firth Sterling and S. Capitol St.	Howard Rd. and MLK Jr. Ave.		2010
DDOT		Construct	Banneker Circle Parking	1200 spaces			2011
DDOT		Operational Improvements	Georgia Ave. Rapid Bus (Operation Enhancements)	Eastern Ave. / Silver Spring Metro Station	Archives Navy Memorial Metro Station		complete
DDOT		Operational Improvements	Pennsylvania Rapid Bus (Operation Enhancements)	Archives Navy Memorial Metro Station	Naylor Road Metrorail Station		2011
DDOT		Reconstruct	K St. Busway	Mt. Vernon Sq./7th St. NW	Wash.Circle / 23rd St. NW		2017
Maryland							
MTA		Construct	Purple Line Transitway	Bethesda	Silver Spring	No	2015
MTA		Construct	Silver Spring Transit Center	Phase II		Yes	2011
MTA		Construct	Corridor Cities Transitway	Shady Grove	COMSAT		2016
MTA		Construct	Southern MD Commuter Bus Initiative	Park-and-Ride lots and increase bus service	Waldorf		2010
MTA		Implement	ICC Corridor Bus Service Improvements			No	2012
MTA		Implement	Extend evening/wk end service on Penn Line; mid-day on Camden	First phase of new MARC plan		No	2010

Note: Shaded areas represent changes from the 2008 CLRP and FY2009-2014 TIP

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS (Transit)

Agency	Project ID	Improv.	Facility	From	To	Under Const. or ROW acquired?	Complt. Date or Status
MTA		Construct	Takoma/ Langley Park Transit Center	Intersection New Hampshire Ave and University Blvd.	Takoma / Langley Park	No	2011
Montgomery County							
Mont.Co.			Clarksburg Transit Center	Clarksburg			2015
Mont.Co.	MCT4	Construct	Four Corners Transit Center	US 29/MD 193		No	2015
Mont.Co.			Metropolitan Grove Transit Center	Vicinity of Watkins Mill Road and MD 117			2015
Mont.Co.	MCT16		NIH Naval Medical Transportation Management	Bethesda			
Mont.Co.			Norbeck Road Bus Enhancement				2020
Mont.Co.			Norbeck Road Park and Ride	Norbeck Road at Georgia Avenue adjacent to or north of MD 108			2015
Mont.Co.	MCT7	Construct	Olney Transit Center			No	2015
Mont.Co.			Randolph Road Bus Enhancement				2010
Mont.Co.		Construct	University Blvd Bus Enhancement	Kensington	Silver Spring	No	2020
Mont.Co.	MCT22	Construct	Veirs Mill Road Bus Enhancement	Rockville	Wheaton	No	2020
Virginia							
VDOT		Widen	US 1 (bus/right-turn lanes)	VA 235 North	SCL Alexandria (I-95 Capital Beltway)	No	2025
Arlington Co.		Construct	Crystal City / Potomac Yard Busway (2-lane)	Vicinity of Glebe Rd. Ext.- City/County line	Crystal City Metro Station	ROW acquired	2010
VDOT		Construct	Potomac Yard Transit Bus lanes (2 lanes)	Four Mile Run	Braddock Rd.	No	2013
VDOT		Construct	Metro Station (Proposed)	@ Potomac Yards		No	2030
VDOT		Implement	VA 244 (Columbia Pike) Streetcar	Skyline Center	Pentagon City	No	2016

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS (Transit)

Agency	Project ID	Improv.	Facility	From	To	Under Const. or ROW acquired?	Complt. Date or Status
VDOT		Construct	Transit Center (Bradlee Shopping Center)	King St. and Braddock Rd.		No	2011
VDOT		Construct	Transit Center (Seven Corners)	Seven Corners Shopping Center		No	2008
VDOT		Construct	Park-and-Ride Lot	Reston East Parking Structure	@ Reston East Park-and-Ride Lot	No	2011
VDOT		Construct	Park-and-Ride Lot	VA 7900 (F-S Pkwy.) PnR	@ Backlick Road North	Yes	2007
VDOT		Construct	Park-and-Ride Lot	Springfield CBD	vic. I-95 & Old Keene Mill Road	No	2014
VDOT		Relocate/ Construct	Park-and-Ride Lot (Leesburg)	Relocate to vic. of Leesburg Bypass and / or the Dulles	700 Spaces	Yes	2009
VDOT		Construct	Park-and-Ride Lot	Purcellville	100 Space Park & Ride Lot	No	2015
VDOT		Implement	Loudoun County Commuter Bus Service.	Town of Leesburg -Harrison St & Catoctin Circle	400 Space Park & Ride Lot		2005
VDOT		Implement	Loudoun County Commuter Bus Service.	VA 772 (Ryan) Station	300 Space Park & Ride Lot		2015
VDOT		Construct	Park-and-Ride Lot	Dulles Town Center	300 Spaces	Proffered	2015
VDOT		Construct	Park-and-Ride Lot	VA 643 east of Leesburg	700 spaces	No	2009
VDOT		Construct	Park-and-Ride Lot	US 50 at Stone Ridge	250 spaces	Proffered	2015
VDOT		Construct	Park-and-Ride Lot	US 50 Dulles at East Gate		Yes	2010
VDOT		Construct	Park-and-Ride Lot	VA 234 (vicinity of I-66)	at Cushing Road	No	2011
VDOT		Construct	Park-and-Ride Lot	Sterling / Ashburn	270 Spaces	Yes	2009
VDOT		Construct	Park & Ride Facility	Round Hill	75 Spaces	ROW acquired	2015
VDOT		Construct	Park & Ride Facility	Brambleton	100 Spaces	No	2015

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS (Transit)

Agency	Project ID	Improv.	Facility	From	To	Under Const. or ROW acquired?	Complt. Date or Status
VDOT		Construct	Park & Ride Facility	Arcola Center	300 Spaces	Proffer	2015
VDOT		Construct	Park-and-Ride Lot	at EPG			2013
VDRPT		Construct	Dulles Corridor Metrorail	East Falls Church Metrorail Station	Wiehle Ave.	No	2014
VDRPT		Construct	Dulles Corridor Metrorail	Wiehle Ave. Station	Route 772	No	2015
VRE		Construct	VRE - Cherry Hill Commuter Rail Station	Cherry Hill	Prince William County	No	2012
VRE		Implement	Service Improvements (Reduce Headways)	Fredericksburg and Manassas lines		No	2015
		Implement	Beltway HOT lanes transit service			No	2013
		Implement	Beltway HOT lanes transit service			No	2020
		Implement	Beltway HOT lanes transit service			No	2030
VDOT		Implement	I-95/I-395 HOV /BUS / HOT lanes: TAC transit service	Buses and additional VRE railcars		No	2012
VDOT		Implement	I-95/I-395 HOV /BUS / HOT lanes: TAC transit service	Buses and additional VRE railcars		No	2020
VDOT		Implement	I-95/I-395 HOV /BUS / HOT lanes: TAC transit service	Buses and additional VRE railcars		No	2030
VDOT		Implement	Transit Development Plan (Fairfax Connector Service Enhancements)			No	2011

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
District of Columbia											
DDOT			New York Avenue	Bladensburg Road							beyond 2010
DDOT			New York Avenue	Florida Avenue							beyond 2010
DDOT			~~Southeast/Southwest Fwy- Reversible Lanes~~	~~14th Street Bridges~~	~~Pennsylvania Ave. SE~~						
DDOT		Construct	Foxhall Road, N.W.	W Place	Calvert Street						Complete
DDOT	nrs	Construct	Klingle Road Reconstruction	Porter Street	Woodley Road						2012
DDOT		Construct	Minnesota Ave. NE ext.	Sheriff Rd	Meade St. N.E.						2013
DDOT	DP9A	Widen / Realign	South Capitol St. Corridor: Frederick Douglass Bridge	S. Capitol St. (east)	Potomac Ave. (west)	2	2	5	6		2015
DDOT	DP9B	Widen	South Capitol St. Corridor: S. Capitol St.	O St.	Potomac Ave.	2	2	5	6		2015
DDOT	DP9C	Construct	South Capitol St. Corridor: S. Capitol St. intersection	at Potomac Ave.							2015
DDOT	DP9D	Construct	South Capitol St. Corridor: Suitland Parkway Intch.	at MLK Jr. Blvd to complete movements							2015
DDOT	DI7A	Reconstruct/ Widen	11th St. Bridges (2 spans)	I-295	Southeast Freeway			8	8 freeway local	4	2013
DDOT	DI7A	Construct	11th St. Bridges (2 spans)	ramp movements to/from the northbound Anacostia Freeway for each span							2013
Maryland											
MDOT Freeway											
MDSHA	MI2q	Construct	I-270	Interchange at Watkins Mill Road Extended		1	1	8	8+2	No	2020
MDSHA	MI2SHOV MI2S	Construct	I-270/US 15 Corridor	Shady Grove Metro	I-70	1	1	varies		No	2030
MDSHA		Reconstruct	I-270	Interchange at MD 121		1	1	1	2	No	2010
MDSHA	MI4	Widen	I-70	Mount Phillip Road	MD 144FA	1	1	4	6	No	2009
MDSHA	MI1f	Construct	I-95	Contee Road Relocated w/ CD Roads		1	1	8	8+4	No	2020

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
MDSHA	MI1k	Construct	I-95/I-495 (Capital Beltway)	Branch Avenue Metro Access (Phases I & II)		1	1	8	8	Yes	2020 (Phase II)
MDSHA	MI1p	Construct	I-95/I-495 (Capital Beltway)	Interchange at Greenbelt Metro		1	1	8	8+2	No	2015
MDSHA	VA	Widen	I-95/I-495 Woodrow Wilson Bridge (see Virginia listing)	MD 210 Interchange	Virginia Line	1	1	6	12	Yes	VI2K 2009
MDSHA	MI1m	Construct	I-95/I-495/Arena Drive Interchange	MD 214	MD 202	1	1	8	8+2	Yes	2009
MDSHA	MP12	Construct	Intercounty Connector	I-270	I-95 / US 1	0	1	0	6	Yes	2012
MDOT Primary											
MDSHA	MP10a	Reconstruct	US 1 (Baltimore Avenue)	College Avenue	Cherry Hill Road	2	2	4	4	No	2020
MDSHA	MP10b	Widen	US 1, Baltimore Avenue	Cherry Hill Road	I-95/I-495	2	2	4	6	No	2010
MDSHA	MP9b	Construct	MD 2/4 at Lusby Southern Conn. Rd.	MD 765	MD 2/4 at Lusby	0	2	0	3	No	2020
MDSHA	MP9c	Construct	MD 2/4	MD 231 Intersection Improvs.		2	2	4	6+2	No	2010
MDSHA	MP2c	Construct	MD 3 (Robert Crain Highway)	US 50	Anne Arundel County Line	2	2	4	6	No	2030
MDSHA		Construct	MD 4 (Pennsylvania Avenue)	Interchange at Westphalia Rd		2	5	4	6	No	2010
MDSA		Construct	MD 4 (Pennsylvania Avenue)	Interchange at Suitland Pkwy		2	5	4	6	No	2011
MDSHA	MP3a	Upgrade/ Widen	MD 4	MD 223	I-95/I-495	2	1	4	6	No	2020
MDSHA		Construct	MD 5 (Branch Avenue)	Interchange at Earnshaw/Burch Hill Roads		2	5	4	6	No	2015
MDSHA	MP4f	Upgrade/ Widen	MD 5 (Branch Avenue)	US 301 at T.B.	North of the Capital Beltway	2	5	4	6	No	2030
MDSHA		Construct	MD 5 (Branch Avenue)	Interchange at MD 373/Brandywine Road Rel.		2	5	4	6	No	2015
MDSHA		Construct	MD 5 (Branch Avenue)	Interchange at Surratts Road		2	5	4	6	No	2015
MDSHA	MP4k	Construct	MD 5 Relocated at Hughesville	End of divided highway south of Hughesville	End of divided highway north of Hughesville	2	2	3	3	complete	2007
MDSHA	MP15		US 15 Catocin Mountain Highway	@ Monocacy Blvd		1	1	4	4	No	2010
MDSHA		Upgrade	US 29 (Columbia Pike)	Musgrove/Fairland Road		2	5	6	6	No	2015

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
MDSHA		Upgrade	US 29 (Columbia Pike)	Stewart Lane, Tech Rd., Greencastle Road, and Blackburn Road		2	5	6	6	No	2030
MDSHA	MP5a	Upgrade	US 29 (Columbia Pike)	Sligo Creek Parkway	south of MD 193	2	5	6	6	No	2020
MDSHA	MP5c	Upgrade	US 29 (Columbia Pike)	north of MD 193	south of MD 650	2	5	6	6	No	2020
MDSHA	MP5e	Upgrade	US 29, Columbia Pike	north of MD 650	Howard County Line	2	5	6	6	No	2020
MDSHA		Construct	MD 75 Relocated	MD 80		0	4	0	4	No	2020
MDSHA	FP1B	Construct	MD 80/MD 355 Relocated	South of Urbana	North of Urbana	0	2	0	4	Yes	2010
MDSHA	FP2	Widen	MD 85 (Buckeystown Pike)	English Muffin Way	north of Grove Road	2	2	2/4	4/6	No	2020
MDSHA	MP12c	Construct	MD 97 (Brookeville Bypass)	South of Brookeville interchange @ MD 28 (Norbeck Road)	North of Brookeville	0	2	0	2	No	2030
MDSHA		Upgrade	MD 97 (Georgia Avenue)	interchange @ Randolph Road		2	2	6	6	No	2020
MDSHA		Upgrade	MD 97 (Georgia Avenue)	interchange @ Randolph Road		2	2	6	6	No	2015
MDSHA	MP14	Reconstruct	MD 202 (Largo Town Ctr. Metro Access Improvs.)	at Brightseat Rd		2	2	6	6	No	2020
MDSHA		Upgrade	MD 210 interchange improvs.	@ Livingston Rd. / Kerby Hill Rd.		2	5	6	6		2020
MDSHA	MP6d	Upgrade	MD 210 (Indian Head Highway) with interchange improvements at: Wilson Bridge Dr., Livingston Rd./Palmer Rd., Old Fort Rd. North, Ft. Washington Rd., and Livingston Rd./Swan Creek Rd. Intersections	MD 228	Capital Beltway	2	5	6	6	No	2030
MDSHA	MP8e	Widen	US 301	North of Mount Oak Road	US 50	2	5	4/6	6+2	No	2020
MDSHA	MP16	Construct	US 340 Interchange	@US 340 at Jefferson Tech Park		1	1	4	4	No	2010

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
MDSHA	BRAC	Reconstruct	BRAC Intersection Improvements near the National Naval Medical Center, Bethesda								2011
MDSHA		Construct	MD 355	Montrose/Randolph Rds.	CSX RR	2	2	6	6	No	2010
MDSHA		Reconstruct	MD 450	CSX grade separation at Peace Cross		2	2	4	4	Yes	2009
MDOT Secondary											
MDSHA	MS33	Widen	MD 27	MD 355	A 305	2	2	4	6	Yes	2010
MDSHA	MS3e	Construct	MD 28/ West Montgomery Ave.	MD 586/MD 911		2	2	2	4	No	2020
MDSHA	MS2f	Construct	MD 28 (Norbeck Road) / MD 198 (Spencerville Road)	MD 97	I-95	2	2	2/4	4/6	No	2020
MDSHA	MS32	Widen	MD 117	I-270	Great Seneca Park	2	2	2	4	No	2020
MDSHA	MS34	Widen	MD 121	I-270	W. Old Baltimore Rd.	3	3	4	6	No	2010
MDSHA	MS6b	Widen	MD 124 (Woodfield Road)	Midcounty Highway	S. of Airpark Dr.	2	2	2	6	No	2020
MDSHA	MS6c	Widen	MD 124 (Woodfield Road)	S. of Airpark Dr.	N. of Fieldcrest Rd.	2	2	2	6	Yes	2010
MDSHA	MS6d	Widen	MD 124 (Woodfield Road)	N. of Fieldcrest Rd.	Warfield Road	2	2	2	6	No	2020
MDSHA	MS10b	Widen	MD 201 (Kenilworth Ave.)	Rittenhouse Road	Pontiac St.	2	2	4	6	No	2020
MDSHA	PGS6	Construct	MD 212 Relocated (Ammendale/Virginia Manor)	US 1	I-95	3	2	2	4	Yes	2008
MDSHA	MS30	Widen/ Construct	MD 414 Extended	MD 210	I-295	0	3	0	4	Yes	2009
MDSHA	MS18d	Widen	MD 450 (Annapolis Road)	Stonybrook Drive	West of MD 3	2	2	2	4	No	2020
MDSHA	MS20c	Construct	MD 475 (East Street Extended)	South Street	proposed Monocacy Boulevard	0	3	0	4	Yes	2010
Montgomery County											
Mont.Co.	MC11b	Construct	A 305 - MidCounty Highway-Extended	Stringtown Road	MD 27 (Ridge Road)	0	3	0	4	No	2010

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
Mont.Co.	MC11c	Construct	A-305 - MidCounty Highway Extended	MD 355	Stringtown Road	0	3	0	2	No	2012
Mont.Co.	nrs	Construct	Burtonsville Access Rd.	MD 198	School Success Rd.	0	4	0	2		2011
Mont.Co.	nrs		Century Blvd./Crystal Rock Loop	existing Century Blvd.	Crystal Rock Drive		3		4	No	2010
Mont.Co.	nrs	Construct	Chapman Avenue	Randolph Road	Old Georgetown Road	0	3	0	2	No	2013
Mont.Co.	MC38a	Construct	Citadel Avenue Extended	dead end of existing road south of Marinelli Road	Nicholson Lane	0	4	0	2	No	2010
Mont.Co.	MC44	Widen	Fairland Rd.	US 29	Briggs Chaney Rd.	3	3	2	3	Complete	2008
Mont.Co.	MC5d	Construct	Father Hurley Blvd.	Wisteria	Germantown Road	0	2	0	4	No	2011
Mont.Co.	MC5c	Widen	Father Hurley/ Ridge Rd.	I-270	existing MD 27	2	2	4	6	No	2010
Mont.Co.	MC7a	Widen	Goshen Rd. South	South of Girard Street	1000 feet north of Warfield Road	3	3	2	4	No	2015
Mont.Co.	MC43	Construct	I-4 Bridge over I-270	Century Boulevard	Milestone Center Drive	0	3	0	4	No	2015
Mont.Co.	MC41	Widen	Longcraft Road	MD 124	MD 117	3	3	2	4	No	2015
Mont.Co.	MC11a	Construct	M-83 - Midcounty Highway Extended	MD 27 (Ridge Road)	Middlebrook Road	0	2	0	4-6	No	2020
Mont.Co.	MC11d	Construct	M-83 - Midcounty Highway Extended	Middlebrook Road	Montgomery Village Avenue	0	2	0	4-6	No	2020
Mont.Co.	MC12f	Widen	MD 118 Ext (Grmntwn. Rd.)	MD 355	M-83/Watkins Mill Rd.	2	2	3	6	No	2020
Mont.Co.	MC14g	Widen	Middlebrook Road Ext. Widening	MD 355	M-83	2	2	3	6	No	2015
Mont.Co.	MC15b	Construct	Montrose Parkway East	Parklawn Drive	MD 586 - Veirs Mill Road	0	2	0	4	No	2015
Mont.Co.	MC15	Construct	Montrose Parkway West	Montrose Road (Tower Oaks Blvd.)	old' Old Georgetown Road	0	2	0	4	No	2009
Mont.Co.	nrs	Construct	Nebel St Extended	Randolph Rd	Target Store Site	0	3	0	4		2010
Mont.Co.	MC18a	Widen	Norbeck Rd. Ext.	MD 28	MD 198	3	3	2	4	No	2020
Mont.Co.	nrs	Construct	Observation Drive Extended	existing terminus	MD 355 Bypass	0	3	0	2	No	2020

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
						from	to	from	to		
Mont.Co.	MC42	Construct	Randolph Road	Parklawn Drive	Rock Creek Park	2	2	4	5	No	2011
Mont.Co.	MC34	Widen	Snouffer School Rd. Fac. Planning	Goshen Rd.	MD 124	3	3	2	4	No	2015
Mont.Co.	MC28a	Widen	Stringtown Rd. Ext.	MD 355	Piedmont Road	3	3	2	4	No	2015
Mont.Co.	MC28	Construct	Stringtown Rd. Ext.	I270/ MD 121 int.	existing Stringtown Rd. @ MD 355	0	3	0	4	No	2009
Mont.Co.	MC23a	Construct	Watkins Mill Rd. ext.	I 270 (future interchange)	MD 355	0	2	0	6	No	2010
Mont.Co.	MC13	Construct	Woodfield Rd.(MD 124 Ext.)	1200' North of MD 108	MD 27	0	2	0	2		2010
Prince Georges County											
PG Co.	PGS3a	Widen	Addison Road	MD 214	Walker Mill Road	3	3	2	4	Yes	2014
PG Co.		Reconstruct	Addison Road	Sheriff Road	MD 704	4	4	2	2	Yes	2014
PG Co.	PGS5	Construct	Allentown Road Relocated	Indian Head Highway (MD 210)	Brinkley Road	0	3	0	4	No	2025
PG Co.	PGS6	Widen	Ammendale/Virginia Manor Road	I-95	west of US 1	3	3	2	6	Yes	2008
PG Co.	PGS73	Widen	Ardwick-Ardmore Road	MD 704	91st Ave.	4	4	2	4	Yes	2015
PG Co.	PGP4a	Construct	Baltimore Washington Pkwy/Greenbelt Rd (MD 193)	ramp to southbound Baltimore Washington Pkwy		0	5	0	4	No	2025
PG Co.	PGS74b	Construct	Bell Station Road	Annapolis Road (MD 450)	Church Road	0	4	0	4	Yes	2006
PG Co.	PGS75	Widen	Berry Road	Livingston Road	Accokeek Road (MD 373)	4	4	2	4	No	2010
PG Co.	PGS9b	Widen	Bowie Race Track Road	Laurel-Bowie Road (MD 197)	Old Chapel Road	4	4	2	4	No	2015
PG Co.	PGS9a	Widen	Bowie Race Track Road	Annapolis Road (MD 450)	Old Chapel Road	4	4	2	4	No	2015
PG Co.	PGS10	Widen	Brandywine Road	north of Piscataway Road (MD 223)	Thrift Road	4	4	2	4	No	2020
PG Co.	PGS76	Widen	Briggs Chaney Road	Montgomery County line	Old Gunpowder Road	4	4	2	4	Yes	2010
PG Co.	PGS11	Widen	Brightseat Road	Sheriff road	MD 214	4	4	2	4	Yes	2004

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
PG Co.	PGS12	Widen	Brinkley Road	St. Barnabas Road (MD 414)	Allentown Road (MD 337)	3	3	4	6	No	2020
PG Co.	PGS13	Construct	Brooks Drive Extended	Marlboro Pike	Rollins Avenue	0	3	0	4	No	2020
PG Co.	PGS14	Widen	Cabin Branch Drive	Columbia Park Road	north of Sheriff Road	4	4	2	4	No	2015
PG Co.	PGS16a	Construct	Campus Way North	Lake Arbor Way	south of Lottsford Road	0	4	0	4	No	2004
PG Co.	PGS16b	Construct	Campus Way North Extended	south of Lottsford Road	Evarts Drive	0	4	0	4	No	2020
PG Co.	PGS17	Widen	Cherry Hill Road	Montgomery County line	Baltimore Avenue (US 1)	3	3	2	4	No	2020
PG Co.	PGS18	Widen	Church Road	Oak Grove Road	Annapolis Road (MD 450)	4	4	2	4	No	2025
PG Co.	PGS20a	Widen	Columbia Park Road	Cabin Branch Road	Columbia Terrace	4	4	2	4	No	2020
PG Co.	PGS20b	Widen	Columbia Park Road	US 50	Cabin Branch Road	4	4	2	4	No	2020
PG Co.	PGS21a	Widen/ Construct	Contee Road	US 1	Old Gunpowder Road	4	4	2	4	Yes	2025
PG Co.	PGS21b	Widen	Contee Road	Briarwood Drive	US 1	4	4	2	4	No	2000
PG Co.	PGS22	Widen	Dangerfield Road	Cheltenham Avenue	Woodyard Road (MD 223)	4	4	2	4	No	2020
PG Co.	PGS24a	Widen	Dower House Road	Woodyard Road (MD 223)	Foxley Road	4	4	2	4	No	2025
PG Co.	PGS24b	Widen	Dower House Road	Foxley Road	Pennsylvania Avenue (MD 4)	4	4	2	6	No	2015
PG Co.	PGS25	Widen	Fisher road	Brinkley Road	Holton Lane	4	4	2	4	No	2025
PG Co.	PGS26	Construct	Forbes Boulevard Extended	south of Amtrak	Greenbelt Road (MD 193)	0	4	0	4	No	2020
PG Co.	PGS27	Widen	Forestville Road	Allentown Road (MD 337)	Pennsylvania Avenue (MD 4)	4	4	2	4	No	2025
PG Co.	PGS29	Widen	Fort Washington Road	Riverview road east of Kenilworth Avenue (MD 201)	Indian Head Highway (MD 210)	4	4	2	4	No	2025
PG Co.	PGS30a	Widen	Good Luck Road		Cipriano Road	4	4	2	4	No	2025
PG Co.	PGS30b	Widen	Good Luck Road	Cipriano Road	Greenbelt Road (MD 193)	4	4	2	4	No	2025

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
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PG Co.	PGS87	Widen	Governor Bridge Road	US301	Anne arundel County	4	4	2	4	No	2020
PG Co.	PGS34a	Widen	Hill Road	Central Avenue (MD 214)	ML King Jr Highway (MD 704)	4	4	2	4	No	2013
PG Co.	PGS34b	Construct	Hill Road	ML King Jr Highway (MD 704)	Sheriff Road	0	4	0	2	No	2018
PG Co.	PGS88	Construct	Iverson St. Extended	Wheeler Road	19th Avenue	0	4	0	4	No	2018
PG Co.	PGS35	Widen	Karen Boulevard	Walker Mill Road	Central Avenue (MD 214)	4	4	2	4	No	2020
PG Co.	PGS38a	Widen	Livingston Road	Indian Head Highway (MD 210) at Eastover	Kerby Hill Rd.	4	3/4	2	4	No	2015
PG Co.	PGS38b	Widen	Livingston Road	Piscataway Creek	Farmington Road	4	4	2	4	No	2020
PG Co.	PGS40a	Widen	Lottsford Road	Archer Lane	Enterprise Road (MD 193)	3	3	2	4	No	2011
PG Co.	PGS39b	Widen	Lottsford Vista Road	ML King Jr Highway (MD 704)	Ardwick-Ardmore Road/Relocated	4	4	2	4	No	2020
PG Co.	PGS44b	Widen	Metzerott Road	Adelphi Road	University Boulevard (MD 193)	4	4	2	4	No	2020
PG Co.	PGS44a	Widen	Metzerott Road	New Hampshire Avenue (MD 650)	Adelphi Road	4	4	2	4	No	2020
PG Co.	PGS45	Widen	Mitchellville Road	Mount Oak Road	Collington Road (MD 197)	4	4	2	6	Yes	2000
PG Co.	PGS89	Widen	Mt. Oak	Church Road	Mitchellville Road	3	3	2	4	No	2009
PG Co.	PGS46	Widen	Murkirk Road	west of Baltimore Avenue (US 1)	Odell Road	4	4	2	4	No	2020
PG Co.	nrs	Construct	National Harbor Main Circulation Roads	I-95/I-295 Interchange	Waterfront Parcel, National Harbor	0	4	0	4/6		2008
PG Co.	PGS47	Widen	Oak Grove and Leeland Roads	Watkins Park Road (MD 193)	Robert Crain Highway (US 301)	4	4	2	4	No	2020
PG Co.	PGS48	Widen	Old Alexandria Ferry Road	Woodyard Road (MD 223)	Branch Avenue (MD 5)	4	4	2	4	No	2015
PG Co.	PGS80	Construct	Old Baltimore Pike Extended	Muirkirk Road	Contee Road	0	4	0	2	Yes	2020
PG Co.	PGS50	Widen	Old Branch Avenue	north of Piscataway Road (MD 223)	Allentown Road (MD 337)	4	4	2	4	Yes	2020
PG Co.	PGS90	Construct	Old Fort Rd. Extended	Piscataway Road (MD 223)	Old Fort Rd	0	4	0	4	No	2010

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
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PG Co.	PGS51a	Widen	Old Gunpowder Road	Powder Mill Road	Greencastle Road	3	3	2	4	No	2015
PG Co.	PGS52	Widen	Oxon Hill Road	Fort Foote Rd - North	MD 210	4	4	2	4	No	2010
PG Co.		Widen	Oxon Hill Road	National Harbor Entrance	Fort Foote Rd - North	4	4	2	4	Yes	2011
PG Co.	PGS81	Construct	Presidential Parkway	Suitland Parkway	Melwood Road	0	3	0	6	No	2025
PG Co.		Construct	Regency Parkway/ Regency Lane	Regency Lane	Hil-Mar Drive	0	4	0	4	Complete	2007
PG Co.	PGS54	Widen	Rhode Island Avenue	University Boulevard (MD 193)	Baltimore Avenue (US 1)	4	4	2	4	No	2015
PG Co.	PGS55a	Widen	Ritchie Marlboro Road	Ritchie Rd	White House Road	3	3	2	4	No	2003
PG Co.	PGS55b	Widen	Ritchie Marlboro Road	White House Road	Old Marlboro Rd.	3	3	2	4		2020
PG Co.	PGS56a	Widen	Ritchie Road/Forestville Road	Alberta Drive	MD 4 Pennsylvania Avenue	4	4	2	4	Yes	2020
PG Co.	PGS56e	Widen	Ritchie Road/Forestville Road	Alberta Drive	Edgeworth Drive	4	4	2	4	Complete	2004
PG Co.	PGS57	Widen	Rollins Avenue	Central Avenue (MD 214)	Walker Mill Road	4	4	2	4	No	2020
PG Co.	PGS58	Widen	Rosaryville Road	Robert Crain Highway (US 301)	Woodyard Road (MD 223)	4	4	2	4	No	2020
PG Co.	PGS60b	Construct	Spine Road	Branch Avenue (MD 5)/US 301	Brandywine Road (MD 381)	3	3	0	4	No	2016
PG Co.	PGS61	Widen	Springfield Road	Lanham-Severn Road (MD 546)	Good Luck Road	4	4	2	4	No	2020
PG Co.	PGS82	Construct	St. Joseph's Drive	MD 202 interchange at	Ardwick-Ardmore Road	0	4	0	4	No	2015
PG Co.	PGP2	Construct	Suitland Parkway	Rena/Forestville Roads		5	5	0	0	No	2025
PG Co.	PGS62a	Widen	Suitland Road	Allentown Road (MD 337)	Suitland Parkway	3	3	2	4	No	2018
PG Co.	PGS62b	Widen	Suitland Road	Suitland Parkway	Silver Hill Road (MD 458)	3	3	2	4	No	2018
PG Co.	PGS63	Widen	Sunnyside Avenue	Baltimore Avenue (US 1)	Kenliworth Avenue (MD 201)	4	4	2	4	No	2020
PG Co.	PGS64	Widen	Surratts Road	Beverly Avenue	Brandywine Road	4	4	2	4	No	2012

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
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PG Co.	PGS65	Widen	Temple Hill Road	Piscataway Road (MD 223)	St. Barnabas Road (MD 414)	4	4	2	4	No	2020
PG Co.	PGP5a	Construct	US 50/Columbia Park Road Ramp	westbound ramp to Columbia Park Road		5	5	1	1	No	2025
PG Co.	PGP5b	Construct	US 50/Columbia Park Road Ramp	eastbound ramp Cheverly vicinity		5	5	1	1	Yes	2003
PG Co.	PGS67a	Widen	Van Dusen Road	Contee Road	Sandy Springs Road (MD 198)	3	3	2	4	No	2020
PG Co.	PGS67b	Construct	Van Dusen Road Interchange	@Contee Road		0	0	0	0	No	2025
PG Co.	PGS68	Widen	Virginia Manor Road	Muirkirk Road	Contee Road	4	4	2	4	No	2015
PG Co.	PGS69a	Widen	Walker Mill Road	Silver Hill Road	I-95	3	3	2	4	No	2020
PG Co.	PGS91	Widen	Westphalia Rd.	MD 4	Ritchie-Marlboro Rd.	4	3	2	4		2020
PG Co.	PGS70	Widen	Wheeler Road	St. Barnabas Road (MD 414)	District of Columbia limits	4	4	2	4	No	2020
PG Co.	PGS71	Widen	White House Road	Ritchie-Marlboro Road	Largo-Landover Road (MD 202)	3	3	2	6	Yes	2020
PG Co.	PGS72	Widen	Whitfield Chapel Road	Annapolis Road (MD 450)	Ardwick-Ardmore Road	4	4	2	4	No	2020
PG Co.	PGS40b	Construct	Woodmore Road	Enterprise Road (MD 193)	Church Road		3		4	No	2015
PG Co.	PGS42	Widen	Woodyard Road (MD 223)	Rosaryville Road	Dower House Road	2	2	2	4	No	2020
PG Co.	PGS42b	Construct	Woodyard Road Relocated (MD 223)	Piscataway Creek	Livingston Road	0	3	0	2	No	2010
PG Co.	PGS42c	Widen	Woodyard Road Relocated (MD 223)	Piscataway Creek	Livingston Road	3	3	2	4	No	2020
City of Frederick											
City of Frederick	FS2	Construct	Monocacy Blvd	Hughes Ford Rd.	Gas House Pike	0	3	0	4	Yes	2009
Charles County											
Chas.Co.	CHS1	Widen/ Realign	Cross County Connector (Billingsly Rd.)	Middletown Rd.	MD 210	3	3	2	4		2009
Anne Arundel County											
BMC	AA1d	Widen	I-97	US 50/301	MD 32/3	1	1	4	6		2025

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
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BMC	AA15a	Widen	I-295	I-195	MD 100	1	1	4	6		2015
BMC	AA15b	Construct	I-295 (New Interchange)	Hanover Road							2015
BMC	AA3e	Widen	MD 2	US 50	MD 10		2	4/5	6		2030
BMC	AA3g	Widen	MD 2	MD 450	South River Bridge	2	2	4	6		2030
BMC	AA4e	Widen	MD 3	MD 32	AA/Prince George Co. Line	2	2	4	6		2030
BMC	AA5c	Widen	MD 32	BW Parkway	Howard County Line		1	4	8		2020
BMC	AA14C	Widen	US50 / MD 301	AA / PG line	Bay Bridge	1	1	6	8		2020
BMC	AA6e	Widen	MD 100	Howard Co. Line	I-97		5/1	4	6		2025
BMC	AA7	Widen	MD 170	MD 175	MD 100		2	2	4		2020
BMC	AA8a	Widen	MD 175	MD 170	BW Parkway		2	2	4		2009
BMC	AA8b	Widen	MD 175	MD 170	BW Parkway		2	4	6		2015
BMC	AA29	Widen	MD 177	MD 100	South Carolina Avenue	2	2	3/2	5		2020
BMC	AA30	Widen	MD 198	MD 32	BW Parkway	2	2	2	4		2015
BMC	AA30a	Widen	MD 198	PG line	BW Parkway	2	2	4	6		2025
BMC		Widen	MD 607	Woods Rd.	MD 173			2	4		2025
BMC	AA34a	Widen	MD 713	MD 175	Arundel Mills Boulevard		2	2	4		2025
BMC	AA34b	Widen	MD 713	Arundel Mills Boulevard	MD 176		2	4	6		2025
Carroll County											
BMC	CA3A	Construct	MD 30 (Manchester Bypass)	North of MD 86	Brodbeck Rd		2	0	2		2030
BMC	CA1B	Widen	MD 140	Sullivan Road	Market St.		1	4/6	8		2020

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
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BMC	nrs	Construct	MD 140 (3 new interchange)	@ MD 97S, Center St. & Englar Rd			1	-	-		2020
BMC	CA2a	Widen	MD 26	MD 32	MD 27		2	4	6		2025
BMC	in base	Widen	MD 32	MD 26	Howard County Line		2	2	4		2020
BMC	CA5	Widen	MD 97	MD 140	Pleasant Valley Rd		2	2	4		2020
Howard County											
BMC	HW1b	Widen	I-70	US 29	US 40	1	1	4	6		2020
BMC	HW1a	Reconstruct	I-70 (partial to full interchange)	@ Marriotsville Road		1	1				2020
BMC	HW19	Widen	I-95	Howard / PG line	Balt. / Howard line	1	1	8	10		2020
BMC	nrs	Reconstruct	US 1 (interchange)	@ MD 175							2015
BMC	HW10d	Widen	US 29	I-70	MD 100		5	6	8		2030
BMC	HW10b	Widen	US 29 NB	S. of MD 175	Middle Patuxent River		5	4	6		2010
BMC	HW3c	Widen	MD 32	Cedar Lane	Anne Arundel County Line		1	4/6	8		2015
BMC	HW3b	Widen	MD 32	MD 108	I-70		1	2	4		2015
BMC	HW3d	Widen	MD 32	I-70	Carroll County Line		2	2	4		2030
BMC	HW3e	Construct/ Reconstruct	MD 32 (interchanges)	@ I-70/ MD 144 Linden Church Rd/Dayton Shop @Rosemary Lane							2015
BMC		Construct	MD 32 (interchange)	@ Burntwoods Rd.							2009
BMC	HW6c	Widen	MD 108	Trotter Road	MD 32		2	2	4		2025
BMC	HW6d	Widen	MD 108	Woodland Rd.	1200' w. of Centennial Ln.	2	2	2	4		2011
BMC	HW6e	Widen	MD 108	MD 104	MD 175	2	2	2	4		2020

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
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BMC	HW7d	Widen	MD 175	US 1	Anne Arundel County Line		2	2	5		2020
BMC	HW8b	Widen	MD 216	West of US 29	Sanner Road		3	2	4		2020
BMC	nrs	Construct	Dorsey Run Rd., North	MD 103	MD 175			0	4		2011
BMC	nrs	Construct	Dorsey Run Rd., South	MD 175	Gulford Rd.			0	4		2010
BMC	HW16C	Widen	Gorman Road	Stephens Road	US 1		3	2	3		2025
BMC	HW18a	Widen	Marriottsville Road	MD 99	US 40		3	2	6		2015
BMC	nrs	Widen	Patuxent Range Road	US 1	Dorsey Run Road			2	4		2015
BMC	HW11b	Widen	Rodgers Avenue	US 40	Courthouse Drive		3	2	4		2010
BMC	HW13a	Construct	Sanner Road South	Johns Hopkins Road	MD 216		3	0	4		2015
BMC	HW13b	Widen	Sanner Road North	Johns Hopkins Road	Pindell School Road		3	2	4		2015
BMC	HW14c	Widen	Snowden River Parkway	MD 100	Broken Land Parkway		3	4	6		2020
Federal Lands											
Fed. Lands	FED2	Widen	Old Mill Rd.(future Mulligan Rd.)	US 1	VA 611 (Telegraph Rd.)	4	4	2	4	Yes	2012
Virginia											
VDOT Freeway											
VDOT	VI1w	Widen	I-66 HOV during peak	US 15 (includes intch. reconst.)	US 29 (Gainesville)	1	1	4	6	No	2020
VDOT	VI1z	Reconstruct	I-66 Interchange	@ US 29 (Gainesville)		1	1	-	-	No	2014
VDOT	VI1ca	Widen	I-66 HOV during peak	US 29 (Gainesville)	VA 234 (Prince William Parkway)	1	1	4	8	Yes	2009
VDOT	VI1ab	Reconstruct	I-66 Interchange	@ I-495 (Capital Beltway)		1	1	-	-	Yes	2013
VDOT	VI1aj	Construct	I-66 Vienna Metro Station HOV Ramp	Transit Ramps - from EB to WB	at Vaden Drive	1	1	0	1	No	2014
VDOT		Widen	I-66 EB Auxiliary Lanes	South of Gallows Road	Off Ramp I-495 SB	1	1	3+1	2	No	2030

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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VDOT		Widen	I-66 WB Auxiliary Lanes	On Ramp from SB I-495	South of Gallows Road	1	1	3+1	3+1+	No	2030
VDOT	VI1ah	Widen	I-66 EB Auxiliary Lanes	Cedar Lane	South of Gallows Road	1	1	3+1	3+1+	No	2030
VDOT	VI1ai	Widen	I-66 WB Auxiliary Lanes	South of Gallows Road	Cedar Lane	1	1	3+1	3+1+	No	2030
VDOT	VI1ae	Reconstruct	I-66 WB Operational/ Spot Improvements- extend acceleration/deceleration lanes	Fairfax Dr.	Sycamore St.	1	1	2	3	No	2013
VDOT	VI1af	Reconstruct	I-66 WB Operational/ Spot Improvements- extend acceleration/deceleration lanes	Washington Blvd.	Dulles Airport Access Rd. connector	1	1	3	4	No	2013
VDOT	VI1ag	Reconstruct	I-66 WB Operational/ Spot Improvements	Lee Hwy. / Spout Run	Glebe Rd.	1	1	2	3	No	2013
VDOT	VI2ka	Widen	I-95 (Wilson Bridge and approaches)	VA 241 (Telegraph Rd.)	US 1	1	1	6	12	Yes	2011
VDOT	VI2k	Widen	I-95 (Wilson Bridge and approaches)	US 1	MD 210	1	1	6	12	Yes	2009
VDOT	VI2ac	Reconstruct	I-95 Interchange	@ VA 613 (Van Dorn Street)		1	1	-	-	No	2015
VDOT	VI2p	Widen	I-95 (provide 4th lane)	Newington	VA 123	1	1	6	8	Yes	2011
VDOT	VI2ab	Reconstruct	I-95 Interchange	@ VA 642 (Lorton Road)		1	1	-	-	No	2010
VDOT	VI2d	Construct	I-95 Interchange	@ VA 7900 (Franconia-Springfield Parkway)	LOV Access to & from West/from & to North	-	1	-	-	No	2015
VDOT	VI2r	Widen / Construct	I-395/I-95 HOV/ BUS/ HOT Lanes	Eads St.	VA 234 (Dumfries Rd.)	1	1	2	3	No	2012
VDOT	VI2r	Construct	I-395/I-95 HOV/ BUS/ HOT Lanes	VA 234 (Dumfries Rd.)	VA 610 (Garrisonville Rd.) in Stafford Co.	1	1	0	2	No	2012
VDOT	VI2r	Widen	I 95: HOV / Bus / HOT Ramp:	NB HOV/Bus/HOT lanes	Eads Street	1	1	1	2	No	2012
VDOT	VI2r	Widen	I 95: HOV / Bus / HOT Ramp:	Eads Street	SB HOV/Bus/HOT Lanes	1	1	1	2	No	2012

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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VDOT	VI2r	Remove	I 95: HOV / Bus / HOT Ramp:	SB Express to SB Gen. use lanes	Between S Hayes St. & Washington Blvd.	1	-	1	0	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	NB HOV/Bus/HOT Lanes	Shirlington Circle	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	Shirlington Circle	SB HOV/Bus/HOT Lanes	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95 : HOV / Bus / HOT Bus Only Ramp:	NB HOV/Bus/HOT Lanes	VA 420 (Seminary Road) (bus only)	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	VA 420 (Seminary Road) (bus only)	SB HOV/Bus/HOT Lanes	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	NB HOV/Bus/HOT to Gen. use lanes	Between VA 236 (Duke St.) and VA 648 (Edsall Rd.)	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	NB HOV/Bus/HOT Lanes	VA 7100 (Fairfax Co. Pkwy) (Alban Rd.)	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	VA 7100 (Fairfax Co. Pkwy) (Alban Rd.)	SB HOV/Bus/HOT Lanes	-	1	0	1	No	2012
FFx Co.	BRAC / VI2ra	Construct	I-95 Reversible Ramp (Colocated w/ existing slip ramp from HOV to GP lanes)	NB HOV/BUS/HOT Lanes - Located N of Rte. 7100/I 95 I/C	EPG Southern Loop Road. - AM Only	1	1	0	1	No	2013
FFx Co.	BRAC / VI2rb	Construct	I-95 Reversible Ramp (Colocated w/ existing slip ramp from HOV to GP lanes)	EPG Southern Loop Road. - PM Only	SB HOV/BUS/HOT Lanes - N of Rte. 7100/I 95 I/C	1	1	0	1	No	2011
FFx Co.	BRAC / VI2rc	Construct	I-95 Ramp (Colocated w/ existing slip ramp from HOV to GP lanes)	EPG Southern Loop Road. - PM Only	NB I 95 GP Lanes	1	1	0	1	No	2011
FFx Co.	BRAC / VI2rd	Widen	I-95 Ramp	SB General Purpose Lanes	NB Fairfax Co. Parkway / EPG Southern Loop Road	1	1	1	2	No	2011
VDOT	VI2r	Delete	I 95: HOV / Bus / HOT Ramp:	SB HOV/Bus/HOT to Gen. use lanes	Between VA 7100 (Fairfax Co. Pkwy.) and VA 638 (Pohick Rd.)	1	-	1	0	No	2010
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	NB HOT lanes to new bus station, back to NB HOT lanes (bus only)	Between VA 7100 (Fairfax Co. Pkwy.) and VA 642 (Lorton Rd.)	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	SB HOT lanes to new bus station, back to SB HOT lanes (bus only)	Between VA 7100 (Fairfax Co. Pkwy.) and VA 642 (Lorton Rd.)	-	1	0	1	No	2012

Note: Shaded areas represent changes from the 2008 CLRP and the FY2009-2014 TIP

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	NB HOV/Bus/HOT to Gen. use lanes	Between VA 7100 (Fairfax Co. Pkwy.) and VA 642 (Lorton Rd.)	0	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	SB HOV/Bus/HOT to Gen. use lanes	Between VA 123 (Gordon Rd.) & VA 3000 (Prince William Pkwy.)	-	1	0	1	No	2010
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	SB Gen Purpose Lanes to SB HOV/Bus/HOT lanes	Between VA 642 (Lorton Rd) and US 1	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	SB Gen Purpose Lanes to SB HOV/Bus/HOT lanes	Between Opitz Blvd. and Dale Blvd.	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	NB HOV/Bus/HOT to Gen. use lanes	Between VA 123 (Gordon Rd.) & VA 3000 (Prince William Pkwy.)	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	NB HOV/Bus/HOT to Gen. use lanes	Between VA 610 (Cardinal Rd.) & VA 234 (Dumfries Rd.)	-	1	0	1	No	2012
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	SB Gen Purpose Lanes to SB HOV/Bus/HOT lanes	Between Dumfried Rd. and Joplin Rd.	-	1	0	1	No	2014
VDOT	VI2r	Construct	I 95: HOV / Bus / HOT Ramp:	NB HOV/Bus/HOT lanes to NB Gen Purpose Lanes	Between Joplin Rd. and Russell Rd.	-	1	0	1	No	2014
VDOT	VI2ca	Construct	I-495 access ramps (Phase VIII of I-95/394/495 Interchange)	Backlick Rd. to 1. mi. E. of I95/I395/I495	All Movements (I-95/395 NB & SB main & HOT to/from I-495/I-95 EB & WB main & HOV lanes)	1	1	-	-	No	2013
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	1. mi. East of I-95/395/495	North of Hemming Ave. underpass	1	1	4+2	5+1	Yes	2013
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	North of Hemming Ave. Underpass	1. mi. East of I-95/395/495	1	1	4+2	5+1	Yes	2013
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	North of Hemming Ave. Underpass	Off Ramp to Braddock Rd	1	1	4+2	5+2	Yes	2030
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On Ramp from Braddock Rd	North of Hemming Ave. Underpass	1	1	4+2	5+2	Yes	2030

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	On Ramp from Braddock Rd	Off Ramp to Rte 236	1	1	4+2	5+2	Yes	2030
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On Ramp from Rte 236	Off Ramp to Braddock Rd	1	1	4+2	5+2	Yes	2013
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	On Ramp from Rte 236	Off Ramp to Gallows Road	1	1	4+2	5+2	Yes	2030
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On Ramp from Gallows Road	Off Ramp to Rte 236	1	1	4+2	5+2	Yes	2030
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	On Ramp from Gallows Road	Off Ramp to Route 50	1	1	4+2	6+2	Yes	2013
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On Ramp from Route 50	Off Ramp to Gallows Road	1	1	4+2	5+2	Yes	2013
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	On Ramp from Route 50	Off Ramp to I-66	1	1	4+2	5+2	Yes	2013
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	On Ramp from Route 50	Off Ramp to I-66	1	1	5+2	6+2	Yes	2030
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On Ramp from I-66	Off Ramp to Route 50	1	1	4+2	5+2	Yes	2013
VDOT	VI4laux	Widen	I-495 NB	On ramp from EB I 66	Off Ramp to Rte 7	1	1	4+2	5+2	Yes	2013
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On ramp from Rte 7	Off Ramp to WB I 66	1	1	4+2	5+2	Yes	2030
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	On ramp from Rte 7	Off Ramp to Rte 123	1	1	4+2	5+2	Yes	2013
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On ramp from Rte 123	Off Ramp to Route 7	1	1	4+2	5+2	Yes	2013
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On Ramp from Rte 123	Off Ramp to Route 7	1	1	5+2	6+2	Yes	2030
VDOT	VI4laux	Widen	I-495 NB Auxiliary Lane	On Ramp from Rte 123	Off Ramp to Rte 267	1	1	4+2	5+3	Yes	2013
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On Ramp from Route 267	Off Ramp to Route 123	1	1	4+2	5+4	Yes	2013
VDOT	VI4laux	Widen	I-495 SB Auxiliary Lane	On Ramp from Route 193	Off Ramp to Route 267	1	1	4+2	5+2	Yes	2030
VDOT	VI4k	Construct	I-495 HOT	American Legion Bridge S. of VA 193 (Georgetown Pike)	S. of VA 193 (Georgetown Pike)	1	1	8	8+2	Yes	2030
VDOT	VI4ia	Construct	I-495 HOT	S. of VA 193 (Georgetown Pike)	S. of Old Dominion Dr.	1	1	8	8+2	Yes	2030
VDOT	VI4IHOT	Construct	I-495 HOT	S. of Old Dominion Dr.	Hemming Ave. Underpass	1	1	8	8+4	Yes	2013

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS (Highway and HOV)

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						from	to	from	to		
VDOT	VI4Ib	Construct	I-495 NB Auxiliary Lane	1 mi. east of I-95/I-395/I-495	North of Hemming Ave. Underpass	1	1	8	5+1	Yes	2013
VDOT	VI4Ib	Construct	I-495 SB Auxiliary Lane	Hemming Ave. Underpass	1 mi. east of I-95/I-395/I-495	1	1	8	5+1	Yes	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	Provides SB to WB, EB to SB, & NB to WB HOV movements	@ VA 267 (Dulles Toll Road)	1	1	-	-	Yes	2013
VDOT	part of VI4IHOTa	Construct	I-495 HOT Lanes Interchange	Provides SB HOT to EB HOV & WB HOV to NB HOT movement	@ VA 267 (Dulles Toll Road)	1	1	-	-	Yes	2030
VDOT	part of VI4IHOTa	Relocate / Reconstruct	I-495 HOT Lanes Interchange	Move ramps from left side to right side: NB GP lanes to WB DTR; SB GP lanes to EB DTR	@ VA 267 (Dulles Toll Road)	1	1	1	1	Yes	2030
VDOT		Construct	I-495 Interchange Ramp	SB I-495	WB Dulles Airport Access Highway (DAAH)	0	1	0	1	Yes	2013
VDOT		Construct	I-495 Interchange Ramp	EB Dulles Airport Access Highway (DAAH)	NB I-495	0	1	0	1	Yes	2013
VDOT		Construct	I-495 Interchange Ramp	EB Dulles Airport Access Highway (DAAH)	SB I-495	0	1	0	1	Yes	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	NB to WB, SB to WB, EB to NB, and EB to SB	@ Jones Branch Connector	1	1	-	-	Yes	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	NB to WB, SB to WB, EB to NB, and EB to SB	@ West Park Connector	1	1	-	-	Yes	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	NB to EB, NB to WB, EB to SB, and WB to SB	@ VA 7	1	1	-	-	No	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	Provides SB to WB, WB to SB, EB to SB, NB to WB, WB to NB, & EB to NB	@ I-66	1	1	-	-	Yes	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	NB to EB	@ I-66	1	1	-	-	Yes	2013

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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						from	to	from	to		
VDOT	part of VI4IHOT	Relocate	I-495 HOT Lanes Interchange	@ I-66	Left side off ramp from NB I 495 to WB I 66 relocated to combine with right side off ramp from NB I 495 to WB I 66	1	1	1	2	Yes	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	NB to EB, NB to WB, EB to SB, and WB to SB	@ US 29	1	1	-	-	Yes	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	EB to NB, WB to NB, SB to EB, and SB to WB	@ VA 650 (Gallows Road)	1	1	0	1	Yes	2013
VDOT	part of VI4IHOT	Construct	I-495 HOT Lanes Interchange	EB to NB, WB to NB, SB to EB, and SB to WB	@ VA 620 (Braddock Road)	1	1	-	-	Yes	2013
VDOT	part of VI4IHOTa	Construct	I-495 HOT Lanes Interchange	NB to EB, NB to WB, EB to SB, and WB to SB	@ VA 620 (Braddock Road)	1	1	-	-	Yes	2030
VDOT	nrs	Reconstruct	VA 267 (Dulles Toll Road) Interchange	@ VA 674 (Hunter Mill Road)		-	-	-	-	No	2012
VDOT	MW1	Widen	Dulles Airport Access Road	Dulles Airport	VA 123	1	1	4	6	No	2017
VDOT	VP21d	Widen	Dulles Greenway	Goose Creek Bridge	VA 901 (Claiborne Parkway)	1	1	4	6	No	2005
VDOT	VP21e	Widen	Dulles Greenway	VA7/15 Bypass	Goose Creek Bridge	1	1	4	6	No	2007
VDOT	VP21b	Construct	Dulles Greenway Interchanges	@ VA 653 & @ Battlefield Parkway		1	1	-	-	No	2007
VDOT Primary											
VDOT	VP1ac	Widen	US 1	Stafford County Line	Joplin Rd.	2	2	4	6	No	2016
VDOT	VP1ab	Widen	US 1	Joplin Rd.	Brady's Hill Road	2	2	4	6	No	2011
VDOT		Widen	US 1	Brady's Hill Road	Cardinal Drive	2	2	4	6	No	2020
VDOT		Widen	US 1	Cardinal Drive	Blackburn Dr/Neabsco Mills Rd	2	2	4	6	Yes	2010
VDOT		Widen	US 1	Blackburn Dr/Neabsco Mills Rd	Featherstone Road	2	2	4	6	No	2020
VDOT	VP1a	Widen	US 1	Featherstone Rd.	VA 235 South	2	2	4	6	No	2015
VDOT	VP1u	Widen	US 1	VA 235 South	VA 235 North	2	2	4	6	No	2015

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2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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						from	to	from	to		
VDOT	VP1t	Reconstruct	US 1 (bus/right-turn lanes)	VA 235 North	SCL Alexandria (I-95 Capital Beltway)	2	2	6	6	No	2025
VDOT	VP1o	Widen	US 1 (Neabsco Creek Bridge)	Cardinal Dr.	Blackburn Rd.	2	2	4	6	No	2009
VDOT	VP1p	Widen	US 1 (part of 1/123 interchange)	Occoquan Rd.	Annapolis Way	2	2	4	6	Yes	2017
VDOT	nrs	Reconstruct	US 1 Interchange	@ Russell Road		1	1	-	-	No	2010
VDOT	VP2s	Widen / Upgrade	VA 7	Route 9	Market Street (Leesburg)	2	1	4	6	No	2020
VDOT	VP2ja	Widen	VA 7 Bypass	VA 7 West	US 15 South (South King St)	5	1	4	6	No	2025
VDOT	VP2j	Widen	VA 7 Bypass	US 15 South (South King St)	VA 7/US 15 East	5	1	4	6	No	2020
VDOT	VP2g	Upgrade	VA 7 (new interchanges)	VA 7/15 (Leesburg Bypass)	VA 28	2	1	6	6	No	2015
VDOT	VP2m	Widen	VA 7	Reston Avenue	Lewinsville Road	2	2	4	6	No	2020
VDOT		Construct	VA 7	Bridge over Dulles Toll Road				4	6	No	2030
VDOT	VP2ma		VA 7	Rolling Holly Drive	Reston Avenue			4	6	No	2012
VDOT	VP2L	Widen	VA 7	Dulles Toll Rd.	I-495	2	2	6	8	No	2013
VDOT	VP2b	Widen	VA 7	Seven Corners	Bailey's Crossroads	2	2	4	6	No	2020
VDOT	nrs	Reconstruct	VA 7	@ VA 606 (Baron Cameron Ave.)		-	-	-	-	No	2005
VDOT	VP2t	Construct	VA 7 interchange	@ Claiborne Pkwy./West Spine Rd.		-	-	-	-	No	2006
VDOT		Construct	VA 7 interchange	@ Ashburn Villiage Blvd.		-	-	-	-	No	2010
VDOT		Construct	VA 7 interchange	@ Loudoun County Parkway		-	-	-	-	Yes	2010
VDOT		Construct	VA 7 interchange	@ River Creek Parkway / Crosstrail Blvd.		-	-	-	-	Yes	2009
VDOT		Construct	VA 7 interchange	@ VA 659 (Belmont Ridge Rd.)		-	-	-	-	No	2020
VDOT	nrs	Reconstruct	VA 7	@ VA 711 (Williams Gap Road)		2	2	4	4	No	2006

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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						from	to	from	to		
VDOT	nrs	Reconstruct	VA 9	@ VA 662 (Clarks Gap Road)		3	3	-	-	Complete	2008
VDOT	VP4e	Widen	US 15 (James Madison Highway)	US 29	I-66	2	2	2	4	No	2030
VDOT	VP4fa	Widen	US 15 (James Madison Highway)	I-66	VA 234	2	2	2	4	No	2009
VDOT	VP4fb	Widen	US 15 (James Madison Highway)	VA 234	Loudoun County Line	2	2	2	4	No	2030
VDOT	nrs	Reconstruct	US 15 (James Monroe Highway)	Whites Ferry Rd.	Maryland State Line	3	3	2	2	No	2020
VDOT	nrs	Reconstruct	VA 27 Interchange	@ VA 244 (Columbia Pike)		-	-	-	-	No	2013
VDOT	VP6h	Widen	VA 28	Fauquier County Line	VA 652 (Fitzwater Dr.)	3	3	2	4	No	2020
VDOT	VP6ka	Widen	VA 28	VA 652 (Fitzwater Dr.)	VA 619 (Linton Hall Road)	3	3	2	4	No	2020
VDOT	VP6k	Upgrade/ Widen	VA 28	VA 619 (Linton Hall Road)	VA 234 Bypass	3	2	4	6	No	2020
VDOT	nrs	Recons/ Widen	VA 28	Bridge over Broad Run	Replace / Widen to ultimate width	3	3	2	6	Complete	2008
VDOT	VP6b	Widen	VA 28 (Centreville Road)	N. City Limits of Manassas Park	Old Centreville Rd.	2	2	4	6	No	2025
VDOT	VP6e	Widen/ Upgrade	VA 28 PPTA (Phase II)	I-66	VA 7	2	1	6	8	No	2015
VDOT	VP6ea	Widen/ Upgrade	VA 28	Dulles Toll Rd.	VA 606 (Old Ox Rd.)	2	1	6	6	No	2008
VDOT	VP6eb	Construct	VA 28 Interchange	@ VA 209 (Innovation Ave.)		-	-	-	-	Yes	2015
VDOT		Reconst.	VA 28 Interchange	@ New Braddock Rd.		-	-	-	-	No	2008
VDOT	VP6v	Construct/ Upgrade	VA 28 PPTA (Phase I) Interchange	@ VA 668 (McLearen Road)	SASM Interchange to VA 668 upgrade	2	1	6	6	Complete	2006
VDOT	VP6w	Construct/ Upgrade	VA 28 PPTA (Phase I) Interchange	@ Sterling Park	VA 606 to VA 625 upgrade	2	1	6	6	Complete	2008
VDOT	VP6x	Construct	VA 28 PPTA (Phase I) Interchange	@ VA 625 (Church & Waxpool Rds.)		2	2	6	6	Complete	2008
VDOT	VP6y	Construct	VA 28 PPTA Interchange	@Nokes Boulevard		-	-	-	-	No	2009

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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						from	to	from	to		
VDOT		Reconstruct	VA 28 Intersection	@ Braddock Rd./ Walney Rd.	eliminate left turns from EB Braddock to NB VA 28, eliminate left turns from VA 28 SB to Walney, and from WB Walney to SB VA 28, eliminate through movement from Braddock to/from Walney					Complete	2008
VDOT	VI1bb	Remove	VA 28 SB ramp	at I-66	eliminate left turn movement-EB I-66 off-ramp to SB VA 28					No	2008
VDOT	VI1cc	Remove	VA 28 NB ramp	at I-66	eliminate turn movement-NB VA 28 to WB I-66					No	2008
VDOT	VP7ae	Construct	US 29 Interchange	@ VA 55/VA 619		-	-	-	-	No	2014
VDOT	VP7r	Widen	US 29	Virginia Oaks Drive	I-66	2	5	4	6	No	2014
VDOT	VP7s	Widen	US 29 (add NB lane)	I-66	Entrance to Conway Robinson MSF	3	2	4	5	No	2014
VDOT	VP7ad	Widen	US 29	US 50	I-66	2	2	4	6	No	2010
VDOT	VP7aa	Widen	US 29	ECL City of Fairfax (vic. Nutley St.)	Espana Court	2	2	4	6	No	2020
VDOT	VP7ab	Complete	US 29	Espana Court	I-495	2	2	4	6	No	2015
VDOT	VSP57a	Construct	Route 29 (Parallel)	US 29 (Lee Highway) (near US 15)	Sommerset Crossing Drive	0	4	0	4	No	2030
VDOT	nrS	Construct	US 50 Traffic Circle	@ US 15 (Gilbert's Corner)		-	-	-	-	Yes	2010
VDOT	VP8q	Widen	US 50	VA 659 Relocated	VA 742 (Poland Rd.)	2	2	4/5	6	No	2015
VDOT	VP8c	Widen	US 50	VA 742 (Poland Rd.)	VA 609 (Pleasant Valley)	2	2	4/5	6	No	2012
VDOT	VP8r	Widen	US 50	VA 609 (Pleasant Valley)	VA 661 (Lee Rd.)	2	2	4/5	6	No	2012
VDOT	VP8n	Widen	US 50 (WBL)	I-66	Waples Mill Road	2	2	2	3	No	2020
VDOT	VP8g	Widen	US 50	I-66	WCL Fairfax City	2	2	6	8	No	2020
VDOT	VP8h	Widen	US 50	ECL City of Fairfax	Arlington County Line	2	2	4	6	No	2020

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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						from	to	from	to		
VDOT	AR2e	Reconstruct	US 50 (Arlington Blvd.)	ARC/FFX Line	Washington Blvd.	2	2	6	6	No	2015
VDOT	AR2f	Reconstruct	US 50 (Arlington Blvd.)	Pershing Dr.	Ft. Myer Dr.	2	2	6	6	No	2015
VDOT	nrs	Reconstruct	US 50 Interchange	@Jaguar Trail		2	2	-	-	Complete	2008
VDOT	nrs	Reconstruct	US 50 Interchange	@ VA 120 (Glebe Road)		-	-	-	-	No	2010
VDOT	nrs	Reconstruct	US 50 Interchange	@ VA 27 (Washington Blvd.)		-	-	-	-	No	2015
VDOT	VP8o	Reconstruct	US 50 Interchange	@ Courthouse Road / 10th Street		1	1	6	8	Yes	2012
VDOT		Construct	US 50 Interchange	VA 606 (Loudoun County Parkway)		-	-	-	-	No	2020
VDOT	nrs	Reconstruct	US 50 Interchange	@ VA 110 (N. Scott St.)		1	1	-	-	No	2020
VDOT	VP23a	Widen	VA 55 (John Marshall Highway)	Gainesville UM Church	US 29 @ VA 619	3	3	2	4	No	2014
VDOT	nrs	Reconstruct	VA 120 (Glebe Road)	@ VA 244 (Columbia Pike)		-	-	-	-	Complete	2008
VDOT	nrs	Reconstruct	VA 120 (Glebe Road)	@ Arlington Ridge Rd.	left turn lanes	-	-	-	-	No	2005
VDOT	nrs	Reconstruct	VA 120 (Glebe Road)	Military Rd.	DC line	2	2	2	2	No	2020
VDOT	nrs	Reconstruct	VA 120 (Glebe Road)	Quebec St.	2nd St.	2	2	-	-	Complete	2008
VDOT	nrs	Reconstruct	VA 120 (Glebe Road)	W. Glebe Rd.	24th Rd.	2	2	4	4	No	2010
VDOT	nrs	Construct	VA 123 Interchange	@ US 1		-	-	-	-	No	2017
VDOT	VP10g	Widen	VA 123	Route 1	Horner Road	2	2	4	6	No	2008
VDOT	VP10s	Widen	VA 123	Horner Road	Devil's Reach Road	2	2	4	6	No	2015
VDOT	VP10ea	Widen	VA 123 (Ox Road)	VA 722 North	Hooes Rd.	2	2	2	6	Complete	2008
VDOT	VP10h	Widen	VA 123 (Ox Road)	Hooes Rd.	Fairfax Co. Parkway	2	2	4	6	No	2015
VDOT	VP10f	Widen	VA 123 (Ox Road)	Fairfax Co. Parkway	Burke Center Parkway	2	2	4	6	No	2015

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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						from	to	from	to		
VDOT	VP10r	Widen	VA 123	Burke Center Parkway	Braddock Road	2	2	4	6	No	2020
VDOT	VP10j	Widen	VA 123	I-495	VA 123	2	2	6	8	No	2013
VDOT	VP10l	Widen	VA 123 (Occoquan River Bridge)	South Approach	VA 722 North	2	2	2	6	Complete	2009
VDOT	VP24a	Relocate/ Widen	VA 215	0.5 mi. west of VA 28 intersection	VA 28	4	3	2	4	No	2011
VDOT	nrs	Construct	VA 234 Interchange	@ US 1		-	1	-	-	No	2016
VDOT	VP12d	Widen/ Upgrade	VA 234 (Dumfries Road)	I-95	US 1	2	5	2	4	Complete	2008
VDOT	VP12k	Widen/ Upgrade	VA 234 (Manassas Bypass)	VA 234 S. of Manassas	I-66	5	1	4	6	No	2030
VDOT	VP12o	Construct	Tri-County Parkway (CTB alignment C & D)	I-66	Loudoun County Line	0	2	0	4	No	2025
VDOT	VP13a	Widen	VA 236	Pickett Road	I-395	2	2	4	6	No	2020
VDOT	VP26a	Construct	VA 28 Bypass	VA 234 (Sudley Road) @ Godwin Drive	I-66	0	5	0	6	No	2020
VDOT	VP26b	Construct	VA 28 Bypass	I-66	VA 620 (Braddock Road) @ VA 613	0	2	0	4	No	2025
VDOT Urban											
VDOT	VU28b	Construct	Battlefield Parkway	US 15 south of Leesburg	Dulles Greenway	0	2	0	4	No	2005
VDOT	VU28c	Construct	Battlefield Parkway	Dulles Greenway	Sycolin Road	0	2	0	4	Yes	2007
VDOT	VU28d	Widen/ Upgrade	Battlefield Parkway / Lawson Rd.	Sycolin Road	Kincaid Boulevard	4	2	2	4	Yes	2007
VDOT	VU28da	Construct	Battlefield Parkway	Kincaid Boulevard	Route 7	0	2	0	4	Yes	2009
VDOT	VU28e	Construct	Battlefield Parkway	Route 7	Fort Evans Road	0	2	0	4	Complete	2008
VDOT	VU28f	Construct	Battlefield Parkway	Fort Evans Road	Edwards Ferry Road	0	2	0	4	Yes	2010
VDOT	VU2b	Construct	Clermont Ave.	Eisenhower Ave.	Duke St.	-	3	-	4	No	2015
VDOT	VU30f	Widen	East Elden Street	Herndon Parkway East	Fairfax County Parkway	3	3	4	6	No	2012
VDOT	VU52	Widen	Eisenhower Ave.	Stovall St.	Holland Lane	3	3	4	6	No	2011

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
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VDOT	nrs	Construct	George Mason Blvd.	Univer. Dr @ Armstrong St.	Univ. Dr. @ Parking Entr.	0	4	0	2	Yes	2009
VDOT	VU35b	Construct	Mill Road Extension	Telegraph Rd.	DMV complex	-	3	-	2	No	2010
VDOT	VU51a	Construct	Potomac Yard Spine Road	US Route 1	Crystal Dr.	0	4	0	4	No	2009
VDOT	VU10b	Widen	Spring Street	Herndon Parkway East	Fairfax County Parkway	3	3	4	6	No	2011
VDOT	VU33	Widen	Sycolin Road	VA 7/US 15 Bypass	SCL of Leesburg	3	3	2	4	No	2015
VDOT	VU32	Widen	US 15 (South King Street)	Evergreen Mill Road	SCL of Leesburg	3	2	2	4	No	2015
VDOT		Construct	US 15 Bypass Interchange	Edwards Ferry Rd.		2	2	-	-	No	2020
VDOT	nrs	Construct	VA 28 Overpass & Interchg.	Overpass Norfolk-Southern RR B line	Interchange w/Wellington Rd.	2	2	4	4	No	2009
VDOT	VU40	Widen	US 29 (Lee Highway)	US 50	Chain Bridge Road	2	2	4	6	No	2030
VDOT	VU6b	Widen	US 29 (Lee Highway)/US 50	VA 123 (Chain Bridge Road)	Eaton Place	2	2	4	6	No	2010
VDOT	VU29	Construct	VA 123 (Chain Bridge Road)	US 50	I-66	2	2	5	6	No	2010
VDOT		Reconstruct	Chain Bridge Road/Eaton Place Intersection Improvements	New "Right in/Right out" intersection at NB Chain Bridge Rd. & Willow Crescent Dr.		2	2			No	2011
VDOT	VU45	Widen	VA 234 (Dumfries Road)	South Corporate Limits	Hastings Drive	3	3	2	4	No	2011
VDOT	nrs	Widen	VA 234 (Sudley Road) 3rd NB lane	Dorsey Circle	Godwin Dr.	2	2	4	5	No	2010
VDOT	VU48b	Widen	Wellington Road	Godwin Drive	VA 28 (Nokesville Road)	3	3	2	4	No	2010
Arlington Secondary											
VDOT	AR28b	Widen	N. Quincy St.	Wilson Blvd.	VA 237	3	3	2	3	Complete	2008
VDOT	AR17a	Widen	Washington Blvd.	Wilson	Kirkwood	3	3	3	4	No	2015
VDOT	nrs	Reconstruct	Wilson Blvd.	N. Quincy	Washington Blvd.	2	2	4	4	No	2010
Fairfax Secondary											

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

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VDOT	FFX2a	Construct	VA 602 (Reston Pkwy.)	VA 5320 (Sunrise Valley Dr.)	VA 606 (Baron Cameron Avenue)	3	3	4	6	No	2015
VDOT	VSF2a	Widen	VA 608 (West Ox Road)	VA 6558 (Penderbrook Drive)	VA 6985 (Ox Trail)	3	3	2	4	Yes	2008
VDOT	VSF4f	Widen	VA 611 (Furnace Road)	VA 123 (Ox Road)	VA 642 (Lorton Road)	3	3	2	4	No	2013
VDOT	VSF4c	Widen	VA 611 (Telegraph Road)	VA 613 (Beulah St.)	Leaf Road North	3	3	2	4	Yes	2011
VDOT	VSF4ca	Widen	VA 611 (Telegraph Road)	Leaf Road North	VA 635 (Hayfield Road)	3	3	2	4	No	2011
VDOT	VSF4i	Widen	VA 611 (Telegraph Road)	VA 635 (Hayfield Road)	VA 633 (S. Kings Hwy.)	3	3	2	4	No	2020
VDOT	VSF4h	Widen	VA 611 (Telegraph Road)	VA 633 (S. Kings Hwy.)	VA 644 (Franconia Road)	3	3	2	3	No	2030
VDOT	VSF15b	Construct	VA 613 (Van Dorn Street)	@ VA 644 (Franconia Road)	interchange	0	0	0	0	No	2013
VDOT	VSF7	Widen	VA 618 (Woodlawn Road)	US 1 (Richmond Highway)	VA 613 (Beulah Road)	3	3	2	4	No	2015
VDOT	VSF8g	Widen	VA 620 (Braddock Rd)	VA 7100 (Fairfax Co. Pkwy.)	VA 123 (Ox Road)	3	3	4	6	No	2015
VDOT	VSF8j	Construct/ Widen	VA 620 (New Braddock Rd.)	VA 28	US 29 @ VA 662 (Stone Rd.)	0/4	3	0/2	4	No	2015
VDOT	VSF10c	Widen	VA 638 (Pohick Road)	US 1	I-95	3	3	2	4	No	2020
VDOT	VSF10e	Widen	VA 638 (Rolling Road)	VA 5297 (DeLong Dr.)	VA 6922 (Odell Street) / Fairfax County Parkway	3	3	2	4	No	2015
VDOT	VSF10a	Widen	VA 638 (Rolling Road)	VA 7100 (Fairfax County Parkway)	VA 644 (Old Keene Mill Road)	3	3	2	4	No	2012
VDOT	VSF13d	Widen	VA 642 (Lorton Road)	VA 123 (Ox Road)	VA 600 (Silverbrook Road)	3	3	2	4	No	2013
VDOT	VSF15	Widen	VA 644 (Franconia Road)	VA 3290 (Craft Road)	VA 611 (Telegraph Road)	3	3	2	4	No	2015
VDOT	FFX11a	Widen	VA 645 (Stringfellow Rd.)	US 50	VA 7100 (Fairfax County Parkway)	3	3	2	4	No	2014
VDOT	VSF16g	Widen	VA 645 (Stringfellow Road)	VA 7735 (Fair Lakes Blvd.)	US 50	3	3	2	4	No	2013
VDOT	VSF37	Widen	VA 650 (Gallows Road)	Gatehouse Road	Providence Forest Dr.	3	3	4	6	Yes	2013
VDOT	VSF33d	Widen	VA 651 (Guinea Road)	VA 620 (Braddock Road)	VA 2430 (Braeburn Road)	3	3	2	4	No	2015

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
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VDOT	VSF33a	Widen	VA 651 (Guinea Road)	VA 6197 (Roberts Parkway)	VA 4807 (Pommeroy Drive)	3	3	2	4	No	2015
VDOT	FFX12a	Construct	VA 651 (New Guinea Rd.)	VA 123 (Ox Road)	Roberts Rd.	0	3	0	4	No	2015
VDOT	VSF17b	Construct	VA 655 (Shirley Gate Road)	VA 7100 (Fairfax County Parkway)	VA 620 (Braddock Road)	0	3	0	4	No	2015
VDOT	VSF18c	Widen	VA 657 (Centreville Road)	VA 8390 (Metrotech Dr.)	VA 668 (McLearen Road)	3	3	4	6	No	2020
VDOT	VSF18b	Widen	VA 657 (Centreville Road)	VA 8390 (Metrotech Dr.)	VA 668 (McLearen Road)	3	3	2	4	Yes	Complete
VDOT	VSF18h	Widen	VA 657 (Centreville Road)	VA 608 (West Ox Rd)	VA 608 (Frying Pan Rd)	3	3	2	4	Yes	2010
VDOT	FFX17b	Widen	VA 666 (Monroe St.)	VA 665 (Fox Mill)	Herndon	3	3	2	6	No	2010
VDOT	FFX18	Widen	VA 668 (McLearen Rd.)	VA 28	VA 657 (Centreville Rd.)	3	3	2/4	6	Yes	2020
VDOT	Vsf21c	Construct	VA 673 (McLearen Rd)	VA 608	VA 602/Interchange at Fairfax Co. Parkway	0	3	0	4	No	2015
VDOT	VSF21b	Widen	VA 673 (McLearen Rd)	VA 657 (Centreville Road)	VA 608	3	3	2	4	No	2015
VDOT	VSF36	Relocate	VA 675 (Sunset Hills Rd.)	West of Edlin School	VA 675 (Crowell Road)	3	3	4	4	No	2012
VDOT	VSF24	Widen	VA 684 (Spring Hill Road)	VA 7 (Leesburg Pike)	VA 6034 (International Drive)	3	3	2	4	Yes	2010
VDOT	VSF25aa	Convert	VA 7100 (Fairfax Co Pkwy HOV)	VA 267 (Dulles Toll Road)	Sunrise Valley Dr.	5	5	6	4+2	No	2015
VDOT	VSF25ea	Widen	VA 7100 (Fairfax Co Pkwy HOV)	Sunrise Valley	Rugby Rd.	5	5	4	4+2	No	2015
VDOT	VSF25e	Widen	VA 7100 (Fairfax Co Pkwy HOV)	Rugby Rd.	US 50	5	5	4	4+2	No	2015
VDOT	VSF25y	Upgrade/ Widen	VA 7100 (Fairfax Co Pkwy HOV)	US 50	VA 7735 (Fair Lakes Pkwy)	2	5	4	4+2	No	2010
VDOT	VSF25z	Upgrade /Widen	VA 7100 (Fairfax Co Pkwy HOV)	VA 7735 (Fair Lakes Pkwy)	I-66	2	5	6	6+2	No	2020
VDOT	VSF25g	Widen	VA 7100 (Fairfax Co Pkwy)	I-66	VA 123 (Ox Road)	5	5	4	6	No	2015
VDOT	VSF25j	Widen	VA 7100 (Fairfax County Parkway)	VA 636 (Hooes Road)	VA 640 (Sydenstricker Road)	2	2	4	6	No	2015
VDOT	VSF25l	Construct	VA 7100 (Fairfax Co Pkwy HOV)	VA 640 (Sydenstricker Road)	VA 7900 (Franconia-Springfield Parkway)	0	2	0	2	No	2015

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
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VDOT	VSF25n	Construct	VA 7100 (Fairfax County Parkway)	VA 4600 (Fullerton Road)	Donegal La. / Hooes Rd.	0	1	0	4/6	Yes	2010
VDOT	VSF25na	Construct	VA 7100 (Fairfax County Parkway)	Donegal La. / Hooes Rd.	VA 7900 (Franconia-Springfield Parkway)	0	1	0	6	No	2020
VDOT	BRAC	Construct	VA 7100 (Fairfax County Parkway) Interchange	@ Franconia Springfield Parkway	Various movements; includes relocated Rolling Rd.	-	-	-	-	No	2020
VDOT	BRAC / VSF25nc	Construct	VA 7100 (Fairfax County Parkway) Interchange	@ Rolling Rd. / EPG Access Road	Ramp movements: EB F.C.Pkwy to NB & SB Rolling Rd. via one ramp; NB Rolling Rd. to EB F.C.Pkwy; NB Rolling Rd. to WB F.C.Pkwy; WB F.C.Pkwy to NB & SB Rolling Rd. via one ramp;	-	-	-	-	Yes	2010
VDOT	BRAC / VSF25nd	Construct	VA 7100 (Fairfax County Parkway) Interchange	@ Rolling Rd. / EPG Southern Loop Road (SLR)	Ramp movements: EPG (SLR) to NB F.C.Pkwy.; EPG (SLR) to SB F.C.Pkwy.	1	1	0	1/2	Yes	2010
VDOT	BRAC / VSF25nb	Construct	VA 7100 (Fairfax County Parkway) Interchange	@ Boudinat Drive (BD)	Ramp movements: EB F.C.Pkwy. To SB BD; WB F.C.Pkwy to SB BD; NB BD to WB F.C.Pkwy.	-	-	-	-	No	2020
VDOT		Construct	VA 7100 (Fairfax County Parkway) Interchange	@ Boudinat Drive (BD)	Ramp movements: NB BD to EB F. C. Parkway	-	-	0	1	Yes	2010
VDOT		Construct	VA 7100 Interchange	@ VA 7700 (Fair Lakes Pkwy) & Monument Dr.		2	5	4	6	No	2011
VDOT	VSF39	Widen	VA 7735 (Fair Lakes Pkwy) (3rd EB Lane)	VA 7100	Fair Lakes Circle	4	4	4	5	No	2010
VDOT	VSF26	Construct	VA 7900 HOV (Franconia-Springfield Parkway)	VA 7100 (Fairfax County Parkway)	VA 2677 (Frontier Drive)	5	5	-	2	No	2010
VDOT	VSF26a	Construct	VA 7900 HOV (Franconia-Springfield Parkway)	Interchange @ Neuman St.		1	1	-	-	No	2020
VDOT	VSF26b	Upgrade	VA 7900 HOV (Franconia-Springfield Parkway)	VA 638 (Rolling Rd.)	VA 617 (Backlick Rd.)	5	1	6+2	6+2	No	2020

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
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VDOT	FFX24c	Widen	VA 8460 (Stonecroft Blvd.)	VA 661 (Old Lee Rd.)	Willard Rd.	3	3	4	6	No	2010
FHWA/VDOT	FED2	Widen	Old Mill Rd.	US 1	VA 611 (Telegraph Road)	4	4	2	4	Yes	2012
FHWA/VDOT	FED3	Construct	Old Mill Rd. extended	Pole Rd.	Telegraph	0	3	0	4	Yes	2009
Loudoun Secondary											
VDOT	VSL51	Construct	Atlantic Boulevard	VA 625 (Church Road)	VA 7	-	3	-	4	No	2010
VDOT	VSL39	Construct	Broadlands Boulevard (Ryan Bypass)	VA 659	VA 625	0	3	0	4	No	2010
VDOT	VSL1b	Widen/ Upgrade	VA 606 (Ldn Co. Pkwy) (nee Old Ox Rd.)	VA 634	VA 621	4	3	2	4	No	2015
VDOT		Widen	VA 606 (Dulles Greenway Interchange)	within Greenway R/W		1	1	2	6	No	2004
VDOT	VSL10c	Construct	VA 607 (Loudoun County Pkwy)	VA 606 / VA 842	VA 772 / VA 607	-	3	-	4	Yes	2010
VDOT	VSL10d	Widen/ Construct	VA 607 (Loudoun County Pkwy) (nee VA 28 Bypass)	VA 620 @ VA 613	Edgewater St.		3		4	Yes	2005
VDOT	VSL10ba	Widen	VA 607 (Loudoun County Pkwy)	VA 625 (Waxpool Road)	W&OD Trail	3	3	4	6	No	2020
VDOT	VSL10bb	Widen/ Upgrade	VA 607 (Loudoun County Pkwy)	W&OD Trail	Redskin Park Drive	4	3	2	6	No	2020
VDOT	VSL10bf	Widen/ Upgrade	VA 607 (Loudoun County Pkwy) (dirt road)	Redskin Park Drive	Gloucester Parkway	4	3	2	4	No	2015
VDOT	VSL10bc	Widen	VA 607 (Loudoun County Pkwy)	Redskin Park Drive	Gloucester Parkway	3	3	4	6	No	2020
VDOT	VSL10bd	Widen/ Upgrade	VA 607 (Loudoun County Pkwy)	Gloucester Parkway	VA 7	4	3	2	4	No	2005
VDOT	VSL12	Widen	VA 625 (Church Rd.)	VA 28	VA 637	3	3	2	4	complete	2008
VDOT	VSL12b	Widen	VA 625 (Waxpool Rd.)	Loudoun County Parkway	Broad Run	3	3	4	6	complete	2008
VDOT	VSL12c	Widen	VA 625 (Waxpool Rd.)	Broad Run	VA 28	3	3	4	6	Yes	2005
VDOT	VSL12d	Construct	VA 625 (Waxpool Rd.)	Faulkner Parkway	VA 2175 (Regency Dr)	4	3	2	4	No	2010
VDOT	VSL45	Widen/ Upgrade	VA 643 (Sycolin Road) Phase II	Leesburg Town Limits	VA 659 (Belmont Ridge Road)	4	3	2	4	No	2025
VDOT	VSL4a	Widen/ Upgrade	VA 659 (Belmont Ridge Rd.)	National Rec. & Park Ent.	Dulles Greenway	4	3	2	4	No	2015

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
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VDOT	VSL4ab	Widen/ Upgrade	VA 659 (Belmont Ridge Road)/VA 659 Relocated	Dulles Greenway	VA 7	4	3	2	4	No	2020
VDOT	VSL4d	Widen/ Upgrade	VA 659 (Belmont Ridge Road)	VA 659 Relocated	National Rec. & Park Ent.	4	3	2	4	Yes	2007
VDOT	VSL4e	Widen/ Upgrade	VA 659 (Gum Spring Rd.)	VA 620 (Braddock Road)	US 50	4	3	2	4	No	2015
VDOT	VSL4f	Widen/ Upgrade	VA 659 (Gum Spring Rd.)	Prince William County Line	VA 620 (Braddock Road)	4	3	2	4	No	2025
VDOT	VSL4c	Construct	VA 659 Relocated	PWCL / VA 234 Bypass	US 50	0	3	0	4	No	2020
VDOT	VSL4b	Construct	VA 659 Relocated	US 50	VA 659 (Belmont Ridge Rd.)	0	3	0	4	No	2020
VDOT	VSL44	Widen/ Upgrade	VA 772 (Ryan Road)	VA 659 (Belmont Ridge Rd.)	Dulles Greenway @ exit #6	4	3	2	4	Yes	2004
VDOT	VSL50	Widen/ Upgrade	VA 773 (Fort Evans Road)	Leesburg Town Limits	River Creek Parkway	4	3	2	4	No	2009
VDOT	nrs	Construct	VA 868 (Davis Dr.)	VA 606 (Old Ox Road)	VA 846 (Sterling Blvd)	-	4	-	4	No	2020
VDOT	nrs	Construct	VA 868 (Davis Dr.)	VA 846 (Sterling Blvd)	VA 625 (Church Road)	-	4	-	4	Yes	2007
VDOT	VSL40a	Widen	VA 901 (Claiborne Parkway)	VA 640 (Ashburn Farm Pkwy)	W&OD Trail	4	3	2	4	Yes	2007
VDOT	VSL40b	Construct	VA 901 (Claiborne Parkway)	W&OD Trail	VA 7	0	3	0	4	Yes	2006
VDOT	VSL46	Construct	VA 1036 (Pacific Boulevard)	Sterling Blvd.	Gloucester Parkway	-	3	-	4	No	2015
VDOT	VSL47	Widen/ Upgrade	River Creek Parkway	Riverside Parkway	VA 773 (Edwards Ferry Road)	4	3	2	4	Yes	2007
VDOT	VSL49	Construct	Russell Branch Parkway Southern Collector Rd.	VA 659 (Belmont Ridge Road)	Loudoun County Parkway	-	3	-	4	No	2015
VDOT	nrs	Construct	(Purcellville)	VA 690	VA 7	0	4	0	2	No	2020
Prince William Secondary											
VDOT	BRAC	Construct	Bypass Rd.	Russell Rd.	MDIA site entrance	0	3	0	2	No	2011
VDOT	VSP49b	Construct	Heathcote Boulevard	VA 625 (Old Carolina Rd.)	US 15 (James Madison Highway)	0	3	0	4	No	2009
VDOT	VSP49	Construct	Heathcote Boulevard	US 29	VA 676 (Catharpin Road)	0	3	0	4	Yes	2009
VDOT	VSP60	Construct	Neabsco Mills Rd.	Dale Blvd.	Opitz Blvd.	0	3	0	4	Complete	2008

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
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VDOT	nrs	Construct	North/South Road at Innovation	VA 840 (University Blvd.)	VA 674 (Wellington Road)/VA 660 (Bethlehem Road)	0	3	0	4	No	2020
VDOT	VSP59	Construct	Peaks Mill (Purcell Road east)	Route 643 (Purcell Road)	Route 3000 (Prince William Parkway)	0	4	0	2	No	2025
VDOT	VSP39	Widen	Russell Road	I-95	Ponderosa Y-Gate	3	3	2	4	No	2011
VDOT	VSP46	Construct	VA 1566 (Sudley Manor Drive Extension)	VA 234 Bypass	Chatsworth Drive	0	3	0	4	Complete	2008
VDOT	nrs	Construct	VA 1596 (Williamson Blvd)	Sudley Manor Dr.	Portsmouth Rd.	0	4	0	4	No	2020
VDOT	VSP21c	Widen	VA 1600 (Ashton Ave.)	Coverstone Dr.	VA 621 (Balls Ford Rd.)	3	3	2	4	No	2020
VDOT	VSP25b	Widen	VA 1781 (NewTelegraph Rd/Summit School Road)	VA 849 (Caton Hill Road)	VA 640 (Minnieville Rd.)	4	4	2	4	No	2015
VDOT	VSP25c	Widen	VA 1781 (Telegraph Rd.)	VA 3000 (Prince William Parkway)	VA 849 (Caton Hill Rd.)	4	4	2	4	No	2015
VDOT	VSP23d	Widen	VA 3000 (Prince William Pkwy.)	VA 776 (Liberia Ave.)	Minnieville Rd.	2	2	4	6	No	2020
VDOT	VSP2ea	Widen/ Upgrade	VA 619 (Linton Hall Road)	VA 1566 (Sudley Manor Dr.)	VA 28 (Nokesville Road)	4	3	2	4	Yes	2009
VDOT	VSP3a	Widen/ Upgrade	VA 621 (Balls Ford Road)	VA 234 (Sudley Road)	Bethlehem Road	4	3	2	4	No	2025
VDOT	VSP3b	Widen/ Upgrade	VA 621 (Balls Ford Road)	Bethlehem Road	VA 234 Bypass	4	3	2	4	No	2025
VDOT	VSP3d	Widen	VA 621 (Devlin Road)	Route 674 (Wellington Road)	Route 619 (Linton Hall Road)	3	3	2	4	No	2025
VDOT	VSP3e	Widen	VA 621 (Devlin Road)	Route 674 (Wellington Road)	VA 234	3	3	2	4	No	2015
VDOT	nrs	Widen	VA 625 (Old Carolina Rd.)	I-66 Underpass	Piedmont Vista Dr.			2	4	No	2009
VDOT	VSP40a	Construct	VA 635 (Cherry Hill VRE Access Road)	US 1	Future VRE Station site	0	4	0	2	No	2010
VDOT	VSP5d	Widen	VA 640 (Minnieville Road)	VA 610 (Cardinal Drive)	VA 643 (Spriggs Road)	3	3	2	4	Yes	2009
VDOT	VSP5e	Widen	VA 640 (Minnieville Road)	VA 643 (Spriggs Road)	VA 234	3	3	2	4	No	2020
VDOT	VSP15c	Widen	VA 640 (Minnieville Road)	VA 849 (Caton Hill Road)	VA 641 (Old Bridge Road)	3	3	2	4	Yes	2008
VDOT	VSP8a	Widen	VA 643 (Purcell Rd.)	VA 234 (Dumfries Rd.)	VA 642 (Hoadly Rd.)	3	3	2	4	No	2020

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
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VDOT	VSP17b	Widen	VA 674 (Wellington Rd.)	VA 621 (Devlin Road)	VA 668 (Rixlew Lane)	3	3	2	4	No	2020
VDOT	VSP18	Widen	VA 676 (Catharpin Rd.)	VA 55 (John Marshall Highway)	Heathcote Blvd.	3	3	2	4	No	2020
VDOT	VSP20b	Widen	VA 784 (Dale Blvd.)	I-95	VA 640 (Minnieville Rd.)		3	4	6	No	2020
VDOT	VSP20c	Widen/ Upgrade	VA 1392 (Rippon Boulevard Extension)	West of Wigeon Way	Rippon VRE Station	4	3	2	4	No	2020
VDOT	VSP47d	Construct	VA 840 (University Blvd.) (nee East-West Connector)	Route 660 (Hornbaker Road)	Sudley Manor Dr.	0	3	0	4	No	2020
VDOT	VSP62	Construct	Rollins Ford Rd.	Songsparrow Dr.	VA 215 (Vint Hill Rd.)	0		0	4	No	2012
FAMPO											
FAMPO	VI2rf	Construct	I 95 : HOV / Bus / HOT Lanes	Rte. 610 (Garrisonville Rd.) in Stafford County	VA 17 in Spotsylvania County (exit 126)	1	1	0	2	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	South of Telegraph Road (North of Aquia Creek)	SB GP Lanes to SB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	South of Telegraph Road (North of Aquia Creek)	NB HOT Lanes to NB GP Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	North of Garrisonville Road (south of Aquia Creek)	NB GP Lanes to NB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	Between Garrisonsville Road and Courthouse Road	SB GP Lanes to SB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	Between Garrisonsville Road and Courthouse Road	NB HOT Lanes to NB GP Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	Between Garrisonsville Road and Courthouse Road	SB HOT Lanes to SB GP Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	Between Garrisonsville Road and Courthouse Road	NB GP Lanes to NB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	South of Rt 628 (North of Stafford Regional Airport)	SB HOT Lanes to SB GP Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	South of Rt 628 (North of Stafford Regional Airport)	NB GP Lanes to NB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	Between Centerpoint Road (St.Co.Airport Access Rd.)	SB GP Lanes to SB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	Between Centerpoint Road (St.Co.Airport Access Rd.)	NB HOT Lanes to NB GP Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	Between Centerpoint Road (St.Co.Airport Access Rd.)	SB HOT Lanes to SB GP Lanes	1	1	0	1	No	2014

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: R	Between Centerpoint Road (St.Co.Airport Access Rd.)	NB GP Lanes to NB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: R	South of Rt 17 (North of Rappahannock River)	NB HOT Lanes to NB GP Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: R	Just South of Rappahannock River	SB HOT Lanes to SB GP Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: R	Just north of Rt 3	NB GP Lanes to NB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: R	Between Rt 620 and Rt 208	NB GP Lanes to NB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: R	Between Rt 620 and Rt 208	SB HOT Lanes to SB GP Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: R	Between Rt 1 and Rt 17	NB GP Lanes to NB HOT Lanes	1	1	0	1	No	2014
FAMPO		Construct	I 95 : HOV / Bus / HOT Lanes: R	Between Rt 1 and Rt 17	SB HOT Lanes to SB GP Lanes	1	1	0	1	No	2014
FAMPO		~~Reconst/Construct~~	~~I-95 interchange-~~	~~at VA 627~~		-	-	-	-	~~No~~	~~2030~~
	FA11E	Construct	I-95 CD lanes	VA 630	VA 627	1	1	6	6+4	No	2025
FAMPO	nrs	Reconstruct	I-95 interchange	at VA 630 (Relocate VA 630 from US 1 to Cedar Lane)		1	1	0	0	No	2015
FAMPO	nrs	Reconstruct	I-95 interchange	@Route 3 (Plank Road)							2020
FAMPO	FA11D	Reconstruct	I-95 interchange	at Mills Drive (US 17 Bypass)/Spotsylvania Parkway		1	1	0	0	No	2020
FAMPO	FAP5F	Widen	US 1	Prince William County Line	US 17(Warrenton Rd)/VA 218	2	2	4	6	No	2020
FAMPO	FAP5I	Widen	US 1(Bridge Replacement)	US 17 (Butler Rd.)	Fredericksburg N. City Limit	2	2	4	6	No	2020
FAMPO	FAP5B	Widen	US 1	Princess Anne St.	VA 3 (Plank Rd.)	2	2	4	6	No	2025
FAMPO	FAP5	~~Widen~~	~~US 1~~	~~VA 3 interchange~~	~~SCL~~	~~3~~	~~3~~	~~4~~	~~6~~	~~No~~	~~2030~~
FAMPO	FAP5E	Widen	US 1	VA 620 (Harrison Road)	Spotsylvania Parkway	2	2	4	8	No	2020
FAMPO	FAP5H	Widen	US 1	Spotsylvania Parkway	VA 608 (Massaponax Church Rd)	2	2	4	6		2015

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Complt. Date or Status
						from	to	from	to		
FAMPO	FAP5G	Widen	US 1	Rt 610	Rt 630	2	2	4	6	No	2025
FAMPO		Reconstruct	US 1 interchange	at US 17						No	2015
FAMPO	FAP6A	Widen	US 17 Bypass (Mills Dr.)	I-95	VA 2 (Tidewater Trail)	2	2	2	4	No	2015
FAMPO	FAP6E	Widen	US 17 Business/VA 2	SCL Frederickburg	US 17 Bypass (Mills Dr.)	2	2	2	4		2035
FAMPO	FAP6C	Widen	US 17 (Warrenton Rd.)	McLane Drive	VA 654 (Bera Church Rd)	2	2	4	6	No	2015
FAMPO	FAP6D	Widen	US 17 (Warrenton Rd.)	VA 654 (Bera Church Rd)	VA 612 (Hartwood Road)	2	2	4	6		2030
FAMPO	FAP7	Widen	VA 212 (Butler Rd)	US 1	VA 212 / VA 218 Connection	4	4	2	4	No	2025
FAMPO	FAS23A	Construct	VA 208 Bypass (Spotsylvania)*	West of Ta River	East of Po River	0	3	0	2	ROW	2009
FAMPO	FAS23B	Construct	VA 208 Bypass (Spotsylvania)*	East of Po River	West of Ni River	0	3	0	4	Complete	2008
FAMPO		Widen	VA 208 (Courthouse Road)	US 1 (Jefferson Davis Hwy)	VA 628 (Station Road)	3	3	4	6		2035
STAFFORD COUNTY SECONDARY											
FAMPO	Stafford# 17E11/19C3 nrs	Upgrade/ Intersection improvements	VA 606 (Ferry Rd)	VA 3 (Kings Highway)	VA 608 (Brook Rd)	4	3				2030
FAMPO	FAS7c	Widen	VA 607 (Cool Spring Rd.)	VA 218	VA 3			0	4	Complete	2008
FAMPO		Upgrade	VA 608 (Brooke Rd.)	VA 605 (New Hope Ch. Rd.)	Dead End	4	3			No	2035
FAMPO	FAS3c	Widen	VA 610 (Garrisonville Rd.)	VA 610 (existing 4 lane section)	VA 643	4	4	2	4		2015
FAMPO		Upgrade/ Intersection improvements	VA 610 (Garrisonville Rd.)	VA 643 (Joshua Road)	Fauquier County Line	4	3				2035
FAMPO		Widen	VA 610 (Garrisonville Rd.)	.13 miles west of VA 643 (Joshua Rd)	.42 miles east of VA 643 (Joshua Rd)	4	4	2	4		2015
FAMPO	FAS3e	Widen	VA 610 (Garrisonville Rd.)	VA 648 (Shelton Shop Rd.)	VA 641(Onville Rd)	4	3	4	6	No	2030

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
FAMPO	FAS3d	Widen	VA 610 (Garrisonville Rd.)	VA 641(Onville Rd)	VA 684 (Mine Rd)	4	3	4	6	No	2015
FAMPO	FAS3db	Widen	VA 610 (Garrisonville Rd.)	VA 684 (Mine Rd.)	I-95 SB ramp	4	3	6	6	Complete	2008
FAMPO	FAS3da	Widen	VA 610 (Garrisonville Rd.)	I-95 SB ramp	US 1	4	3	6	8	No	2020
FAMPO	FAS8	Reconstruct	VA 624	US 1	VA 626	4	4	2	4	No	2010
FAMPO	FAS29	Widen	VA 626 (Leeland Rd.)	new conn. With VA 624	VA 607	4	4	2	4	No	2015
FAMPO		Upgrade	VA 616 (Poplar Rd.)	VA 652 (Truslow Rd.)	Fauquier County Line	4	3			No	2035
FAMPO		Upgrade	VA 627 (Mountainview Rd.)	VA 648 (Stefaniga Rd.)	Centreport Pkwy.	4	3			No	2035
FAMPO		Upgrade	VA 627	VA 616	Choptank Rd.	4	3			No	2035
FAMPO	FAS5b	Widen	VA 630 (Courthouse Rd)	VA 732 (Cedar Lane)	VA 648 (Shelton Shop Rd)	4	4	2	4	No	2025
FAMPO	nrs	Widen/ Construct	VA 630 (Courthouse Rd)	Brooke Point H.S.	VA 629	4	4	0	2	No	2010
FAMPO		Upgrade	VA 637	I-95	Woodstock Ln.	4	3			No	2035
FAMPO	nrs	Widen	VA 641 (Onville Rd.)	VA 610	Quantico MCB			2	4		2030
FAMPO		Upgrade	VA 644	VA 627	VA 610	4	3			No	2035
FAMPO	FAS13	Reconstruct	VA 648 (Shelton Shop Rd.)	VA 610 (Garrisonville Rd)	VA 627 (Mountainvie Rd)	4	4	2	4	No	2025
FAMPO	FAS11a	Construct	VA 684 Extension (Mine Rd.)	Existing Mine Rd.	VA 628	0	4	0	4	No	2020
FAMPO	FAS11b	Construct	VA 684 Extension (Mine Rd.)	VA 628	VA 652	0	4	0	4	No	2030
FAMPO	nrs	Construct	Widewater Parkway	US 1	VA 658			0	4		2025
CITY OF FREDERICKSBURG											
FAMPO	nrs	Widen	US 1 Bus. (Lafayette Blvd.)	Blue-Gray Pkwy	US 1 at Four Mile Fork			2	4		2015
FAMPO	FAS16	Widen	VA 3 (William St.) (Fredericksburg)	Mahone Dr.	US 1	3	3	4	6	No	2020

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
FAMPO	nrs	Construct	Cowan Blvd.	Jeff Davis Hwy.	Carl D. Silver Blvd			0	4		2025
FAMPO	nrs	Widen	Fall Hill Ave.	Carl D. Parkway	Mary Wash. Blvd. Ext.			2	4		2015
FAMPO	nrs	Construct	Gateway Blvd.	Existing Gateway Blvd.	Jeff Davis Hwy.			0	4		2025
FAMPO	nrs	Construct	Mahone Dr.	Plank Rd.	Fall Hill Ave.			0	4		2025
FAMPO	FAS25	Widen	Princess Anne St.	US 1	Herndon St.	3	3	2	4	No	2010
SPOTSYLVANIA COUNTY SECONDARY											
FAMPO	FAS22	Widen	VA 3 (Spotsylvania)	Chewing Lane	VA 627 (Gordon Rd.)	2	2	3	6	No	2015
FAMPO	FAS26a	Widen	VA 606 (Mudd Tavern Rd.)	US 1	I-95	3	3	2	4	No	2030
FAMPO	FAS26b	Widen	VA 606 (Morris Rd)	US 1	VA 208	3	3	2	4	No	2030
FAMPO	nrs	Construct	VA 607 (Guinea Station Rd.)	VA 608	US 1			0	2		2025
FAMPO	FAS27	Widen	VA 608 (Massaponax Church R	VA 628	I-95	3	3	2	4	No	2025
FAMPO	nrs	Construct	VA 608 (Massaponax Church R	VA 648	VA 208			0	2		2025
FAMPO	FAS31	Widen	VA 610 (Old Plank Rd.)	VA 627	VA 612	4	4	2	4	No	2030
FAMPO	FAS17	Widen	VA 612 (Catharpin Rd.)	Ni River Reservoir	VA 610	4	4	2	4	No	2030
FAMPO	FAS18a	Widen	VA 620 (Harrison Rd)	VA 639	US 1 Bypass	4	4	2	4	No	2020
FAMPO	FAS18c	Widen	VA 620 (Harrison Rd)	VA 3 (Plank Road)	VA 627 (Gordon Rd.)	4	4	2	4		2015
FAMPO	FAS9b	Widen	VA 627 (Gordon Rd.)	VA 628	VA 620	4	4	2	4	No	2015
FAMPO		Widen	VA 627 (Gordon Rd.)	VA 628 (Smith Station Rd)	VA 613 (Brock Road)	4	4	2	4		2035
FAMPO	FAS28	Widen	VA 628 (Smith Station Rd)	VA 608	VA 627	4	4	2	4	No	2025
FAMPO	FAS19	Widen	VA 636 (Mine Rd.)	VA 208 (Courthouse Rd.)	VA 638	4	4	2	4	No	2025

2009 CLRP AND FY2010-2015 TIP AIR QUALITY CONFORMITY INPUTS

(Highway and HOV)

Agency	Project ID	Improv.	Facility	From	To	Facility		Lanes		Under Const. or ROW acquired?	Compl. Date or Status
						from	to	from	to		
FAMPO		Widen	VA 638 (Lansdowne Rd)	SCL Frederickburg	VA 636 (Mine Rd)	3	3	2	4		2035
FAMPO	FAS20a	Widen	VA 639 (Leavells Rd.)	VA 620	VA 208	4	4	2	4	Complete	2005
FAMPO	FAS20b	Widen	VA 639 (Leavells Rd.)	VA 208	VA 628	4	4	2	4	Yes	2025
FAMPO	FAS20c	Widen	VA 639 (Bragg Rd.)	VA 618	VA 3	4	4	2	4	No	2015
FAMPO		Widen	VA 674 (Chancellor Rd.)	VA 610 (Old Plank Rd)	VA 627 (Gordon Rd.)	4	4	2	4		2035
FAMPO	nrs	Construct	Market St. Ext.	VA 636	US 1			0	4		2025
FAMPO	nrs	Construct	Wakeman Dr. Ext.	US 1	VA 208			0	4		2025
FAMPO	FAS21	Construct	Parallel Facility to I-95- (Spotsylvania)	US 1	VA 620	0	4	0	4	No	2020

APPENDIX C

Interagency and Public Involvement Process

National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202)962-3202

**NOTE: Illustration of monthly
Consultation letter**

February 13, 2009

TO: Transportation Consultation Agencies
(United States Environmental Protection Agency, Federal Highway
Administration, Federal Transit Administration, Metropolitan Washington Air
Quality Committee, Air Quality Public Advisory Committee, and Transportation
Planning Board Citizens Advisory Committee)

FROM: Ronald F. Kirby
Director, Department of
Transportation Planning

SUBJECT: Consultation with respect to TPB plans and programs

Enclosure:

- 1) Agenda for February 18, 2009 TPB meeting

This memo transmits the agenda for the February TPB meeting, which is relevant to TPB consultation with respect to air quality conformity. Materials associated with each agenda item are available on the TPB web site www.mwcog.org under Dates and Events. As always, you are welcome to attend the TPB meetings (and/or any meetings of the TPB committees and their subcommittees). A schedule of monthly meetings is listed in the "Calendar of Events" in *TPB NEWS*.

Please be aware that there will be a meeting of the TPB Scenario Task Force from 10:30 a.m. to 11:45 a.m. in the COG Board Room. The purpose of the meeting is to receive a status report on the "What Would It Take" and "CLRP Aspirations" transportation and land use scenarios, and to discuss the identification of one or more new regional projects that could be considered for federal transportation stimulus funding.

The February TPB agenda items relevant for transportation conformity and consultation are identified below.

Item 7 is an action item in which the Board will be asked to approve an amendment to the FY 2009-2014 Transportation Improvement Program (TIP) as requested by the Virginia Department of Transportation (VDOT). VDOT has requested an amendment that is exempt from the air quality conformity requirement to add \$57.521 million in additional funding for the US Route 50 Widening Project between VA Route 28 and VA Route 742

and to reprogram \$17.816 million from FY 2010 to FY 2009.

Item 8 is an action item in which the Board will be briefed on the comments received and recommended responses, and asked to approve project submissions for inclusion in the air quality conformity assessment for the 2009 Constrained Long Range Plan (CLRP) and FY 2010-2015 TIP. At the January 28 meeting, the Board was briefed on the major project changes submitted for inclusion in the air quality conformity assessment. The project list was released for a public comment period that ended on February 14th.

Item 9 is an action item in which the Board will be briefed on the comments received and recommended responses, and asked to approve the scope of work for the air quality conformity assessment for the 2009 CLRP and FY 2010-2015 TIP. At the January 28 meeting, the Board was briefed on the draft scope of work which was released for a public comment period that ended February 14th.

Item 11 is an action item in which the Board will be asked to approve amendments to the FY 2009-2014 TIP to include the federal stimulus funded projects. The Board will be briefed on the status of the federal stimulus package and the proposed amendments to the FY 2009-2014 TIP by the regional DOTs and WMATA. At the January 28 meeting, the Board was briefed on the status to date of the federal transportation stimulus package and on proposed criteria for prioritizing federal stimulus-funded transportation projects in the Washington region.

Item 13 is an information item in which the Board will be briefed on the draft Unified Planning Work Program (UPWP) for FY 2010 (July 1, 2009 through June 30, 2010). The final version will be presented for the Board's approval at its March 18 meeting.

Item 14 is an information item in which the Board will be briefed on the draft Commuter Connections Work Program (CCWP) for FY 2010 (July 1, 2009 through June 30, 2010). The Board will be asked to approve the FY 2010 CCWP at its March 18 meeting.

National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202

MEETING NOTICE

Date: February 18, 2009
Time: 12 noon
Place: COG Board Room

Meeting of the TPB Scenario Task Force: From 10:30 to 11:45 am, the task force will meet in the **COG Board Room** to receive a status report on the "What Would It Take" and "CLRP Aspirations" transportation and land use scenarios, and to discuss the identification of one or more new regional projects that could be considered for federal transportation stimulus funding.

A-G-E-N-D-A (BEGINS PROMPTLY AT NOON)

- | | | |
|----------|----|---|
| 12 noon | 1. | Public Comment on TPB Procedures and Activities Chairman Jenkins |
| | | Interested members of the public will be given the opportunity to make brief comments on transportation issues under consideration by the TPB. Each speaker will be allowed up to three minutes to present his or her views. Board members will have an opportunity to ask questions of the speakers, and to engage in limited discussion. Speakers are asked to bring written copies of their remarks (65 copies) for distribution at the meeting. |
| 12:20 pm | 2. | Approval of Minutes of January 28 Meeting Chairman Jenkins |
| 12:25 pm | 3. | Report of Technical Committee Mr. Erenrich
Chair, Technical Committee |
| 12:30 pm | 4. | Report of Citizen Advisory Committee Mr. Keough
Chair, Citizen Advisory Committee |
| 12:40 am | 5. | Report of Steering Committee Mr. Kirby
Director, Department of
Transportation Planning (DTP) |
| 12:45 pm | 6. | Chairman's Remarks Chairman Jenkins |



Alternative formats of this agenda and all other meeting materials can be made available for persons with disabilities. Phone: 202.962.3300 or 202-962.3213 (TDD) Email: accommodations@mwkog.org. Allow 7 working days for preparation of the material. Electronic versions are available at: www.mwkog.org.

ACTION ITEMS

- 12:50 pm 7. **Approval of an Amendment to the FY 2009-2014 TIP that is Exempt from the Air Quality Conformity Requirement to Add Funding for the US Route 50 Widening Project Between Route 28 and VA Route 742 in Fairfax and Loudoun Counties, as Requested by the Virginia Department of Transportation (VDOT)**
..... Ms. Sorenson
- The Board will be briefed on an amendment to the FY 2009-2014 TIP to add \$57.521 million in additional funding for the US Route 50 Widening Project between Route 28 and VA Route 742 and to reprogram \$17.816 million from FY 2010 to 2009, as described in the enclosed material. The Board will be asked to approve the amendment to the FY 2009-2014 TIP to modify the funding for the US Route 50 Widening Project.
- Action:** Adopt Resolution R11-2009 to amend the FY 2009-2014 TIP to modify the funding for the US Route 50 Widening Project, as described in the enclosed materials.
- 12:55 pm 8. **Review of Comments Received and Approval of Project Submissions for the Air Quality Conformity Assessment for the 2009 CLRP and FY 2010-2015 TIP** Mr. Kirby
- At the January 28 meeting, the Board was briefed on the major project changes submitted for inclusion in the air quality conformity assessment for the 2009 CLRP and FY 2010-2015 TIP which were released for a public comment period that ended February 14. The Board will be briefed on the comments received and recommended responses, and asked to approve project submissions for inclusion in the air quality conformity assessment for the 2009 CLRP and FY 2010-2015 TIP.
- Action:** Adopt Resolution R12-2009 to approve project submissions for inclusion in the air quality conformity assessment for the 2009 CLRP and FY 2010-2015 TIP.
- 1:00 pm 9. **Approval of Scope of Work for the Air Quality Conformity Assessment for the 2009 CLRP and FY 2010-2015 TIP**
..... Ms. Posey, DTP
- At the January 28 meeting, the Board was briefed on the draft scope of work for the air quality conformity assessment for the 2009 CLRP and FY 2010-2015 TIP, which was released for a public comment period that ended February 14. The Board will be briefed on the comments received and recommended responses, and asked to approve the scope of work for the air quality conformity assessment for the 2009 CLRP and FY 2010-2015 TIP.
- Action:** Approve the enclosed scope of work for the air quality conformity assessment for the 2009 CLRP and FY 2010-2015 TIP.
- 1:05 pm 10. **Approval of Technical Assistance Recipients Under the FY 2009 Transportation/Land Use Connection (TLC) Program**
..... Ms. Koster
..... Ms. Crawford, DTP
- At the October 15, 2008 meeting, the Board approved releasing the Call for Project Applications for the FY 2009 TLC program. During November, the TLC brochure and application form were distributed to TPB member jurisdictions inviting applications for short-term technical

Action: Approve the recommended TLC technical assistance recipients and the schedule for the FY 2010 TLC program.

- At the January 28 meeting, the Board was briefed on the status to date of the federal transportation stimulus package and on proposed criteria for prioritizing federal stimulus-funded transportation projects in the Washington region. The Board was also updated on the projects under consideration by the DOTs and WMATA for possible stimulus funding. The Board will be briefed on the status of the federal stimulus package and the proposed amendments to the FY 2009-2014 TIP by the DOTs and WMATA. The Board will be asked to amend the FY 2009-2014 TIP to include the federal stimulus funded projects described in the attached materials.

INFORMATION ITEMS

- As requested by the TPB at the November 19, 2008 meeting, the Board will be briefed on the activities of the MATOC Program during the Inauguration period. The MATOC Program is now in an initial trial phase, leading up to the planned full implementation by July 2009. The Inauguration was the first major event for MATOC during this trial phase.

- The Board will be briefed on the enclosed draft Unified Planning Work Program (UPWP) for FY 2010 (July 1,2009 through June 30,2010). The final version will be presented for the Board's approval at its March 18 meeting.

- 1:45 pm 14. **Briefing on Draft FY 2010 Commuter Connections Work Program (CCWP)** Mr. Ramfos, DTP
- The Board will be briefed on the enclosed draft CCWP for FY 2010 (July 1,2009 through June 30,2010). The Board will be asked to approve the FY 2010 CCWP at its March 18 meeting.
- 1:50 pm 15. **Briefing on Additional Findings from the 2007/2008 Regional Household Travel Survey** Mr. Griffiths, DTP
- At the January 28 meeting, the Board was briefed on initial results from the survey of over 10,000 households in the Washington Metropolitan region. The Board will be briefed on additional travel and socio-economic results from this survey.
- 2:00 pm 16. **Other Business Adjourn**
- 2:05 pm 17. **Adjourn**

2 hours 5 minutes

Lunch will be served to Board members and alternates at 11:30 am

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PERÍODO DE ANUNCIO PÚBLICO

**PARA PROPUESTA DE LA REGIÓN DE WASHINGTON DE LA
ACTUALIZACIÓN DEL PLAN OBLIGATORIO DE LARGO PLAZO (CLRP) DEL
2009, AÑO FISCAL 2010-2015, PROGRAMA DE MEJORA DE TRANSPORTE
(TIP), Y ANÁLISIS DE LA CONFORMIDAD DE LA CALIDAD DEL AIRE.**

La Junta de Planificación Metropolitana de Transporte (TPB) iniciará en 30 días,
un período de comentarios públicos sobre la actualización de la propuesta del
2009 del plan obligatorio a largo plazo (Constrained Long Range Plan -CLRP)
y el programa de mejoramiento de transporte año fiscal 2010-2015 (TIP), que
incluye además, un análisis de calidad del aire el 15 de enero.

Este período de comentarios públicos se extenderá hasta el sábado 14 de
febrero de 2009. El TPB está programado a aprobar estas propuestas en su
reunión del 18 de febrero de 2009. Se invita al público en general a revisar los
borradores de los documentos en la página Web de COG:

www.mwccog.org/transportation/. Estos materiales también pueden ser revisa-
dos en el Consejo de Gobiernos Metropolitanos de Washington (COG), 777 N.
Capitol St. NE, Washington, DC 20002.

El CLRP muestra proyectos de: carreteras, puentes, vehículos de alta ocu-
pación (HOV), tránsito, bicicletas y peatones a través de proyectos financiados
hasta el año 2030. Este TIP de seis años de duración incluye todos los proyec-
tos, programas y estrategias que las agencias de transporte estatales y locales
tienen previsto aplicar entre 2009 y 2015. El proceso de TIP se está utilizando
para obtener comentarios sobre los proyectos de la región que son financiados
por la Administración Federal de Tránsito (incluidos fondos de la Sección 5307)
y la Administración Federal de Carreteras. El análisis de conformidad de la cali-
dad del aire evalúa las enmiendas del plan y programas con respecto a los
requisitos de calidad del aire bajo las Enmiendas a la Ley de Aire puro de 1990.

El público en general está invitado a presentar sus observaciones sobre los
proyectos de documentos en línea en: www.mwccog.org/tpbpubliccomment/. Los
comentarios escritos pueden ser enviados al Presidente del TPB Charles
Jenkins, Consejo de Gobiernos Metropolitanos de Washington (COG), 777 N.
Capitol St. NE, Suite 300, Washington, DC 20002.

Para obtener información adicional o para recibir asistencia especial, por favor
llámenos: (202) 962-3311 o (202) 962-3213 (TDD).

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with the Register of Wills, D.C., 500 Indiana Avenue, N.W., Washington, D.C. 20001, on or before January 15, 2009. Claims against the decedent who do not receive a copy of this notice by mail within 25 days of its first publication shall so inform the Register of Wills, including name, address and relationship.

Raymonda Barnhart
PERSONAL REPRESENTATIVE
Anne Meister
REGISTER OF WILLS

SUPERIOR COURT OF THE DISTRICT OF COLUMBIA
PROBATE DIVISION
WASHINGTON, D.C. 20001-2131
ADMINISTRATION NO. 0001312-08
BETTIE SUBER HERBERT
PRO SE

NOTICE OF APPOINTMENT, NOTICE TO CREDITORS AND NOTICE TO UNKNOWN HEIRS

Cheryl R. Herbert, whose address is 621 Gallatin Street, NE, Washington, DC 20017, was appointed personal representative of the estate of Bettie Suber Herbert, who died on October 24, 2008 with a will and will serve without Court supervision. All unknown heirs and heirs whose whereabouts are unknown shall enter their appearance in this proceeding. Objections to such appointment (or to the probate of decedent's will) shall be filed with the Register of Wills, D.C., 500 Indiana Avenue, N.W., Washington, D.C. 20001, on or before July 8, 2009. Claims against the decedent shall be presented to the undersigned with a copy to the Register of Wills or filed with the Register of Wills with a copy to the undersigned, on or before July 8, 2009, or be forever barred. Persons believed to be heirs or legatees of the decedent who do not receive a copy of this notice by mail within 25 days of its first publication shall so inform the Register of Wills, including name, address and relationship.

Cheryl R. Herbert
PERSONAL REPRESENTATIVE
Anne Meister
REGISTER OF WILLS

SUPERIOR COURT OF THE DISTRICT OF COLUMBIA
PROBATE DIVISION
WASHINGTON, D.C. 20001-2131
FOREIGN NO. 00126-08
JEAN ROLLISON HARTMAN
NAME OF DECEDENT
February 24, 2008
DATE OF DEATH

NOTICE OF APPOINTMENT OF FOREIGN PERSONAL REPRESENTATIVE AND NOTICE TO CREDITORS

Francis X. Hartman, whose address is 12502 Littleton Street, Silver Spring, MD 20906, was appointed personal representative of the estate of Jean Rollison Hartman, deceased, on May 29, 2008, by the Register of Wills for Montgomery County, State of Maryland.

Service of process may be made upon D. June Rollison, 5119 45th St., N.W., Washington, D.C. 20016-4044, whose designation as District of Columbia agent has been filed with the Register of Wills, D.C.

The decedent owned the following District of Columbia real property: 5119 45th Street, N.W.

Claims against the decedent may be presented to the undersigned and filed with the Register of Wills for the District of Columbia, 500 Indiana Avenue, N.W., Washington, D.C. 20001 within 6 months from the date of first publication of this notice.

Francis X. Hartman
PERSONAL REPRESENTATIVE
Anne Meister
REGISTER OF WILLS

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NOTICE TO UNKNOWN HEIRS
Dennis Lee, whose address is 4103 Briggs Chaney Road, Beltsville, MD 20705, was appointed personal representative of the estate of Harold K. Lee, who died on October 24, 2008 with a will and will serve without Court supervision. All unknown heirs and heirs whose whereabouts are unknown shall enter their appearance in this proceeding. Objections to such appointment (or to the probate of decedent's will) shall be filed with the Register of Wills, D.C., 500 Indiana Avenue, N.W., Washington, D.C. 20001, on or before July 8, 2009. Claims against the decedent shall be presented to the undersigned with a copy to the Register of Wills or filed with the Register of Wills with a copy to the undersigned, on or before July 8, 2009, or be forever barred. Persons believed to be heirs or legatees of the decedent who do not receive a copy of this notice by mail within 25 days of its first publication shall so inform the Register of Wills, including name, address and relationship.

Dennis Lee
PERSONAL REPRESENTATIVE
Anne Meister
REGISTER OF WILLS

SUPERIOR COURT OF THE DISTRICT OF COLUMBIA
PROBATE DIVISION
WASHINGTON, D.C. 20001-2131
ADMINISTRATION NO. 0001330-08
AGNES BERNICE GASKINS
PRO SE

NOTICE OF APPOINTMENT, NOTICE TO CREDITORS AND NOTICE TO UNKNOWN HEIRS

Joseph E. Lloyd, whose address is 8103 Legation Rd., New Carrollton, MD 20784-2022, was appointed personal representative of the estate of Agnes Bernice Gaskins, who died on December 24, 2007 without a will and will serve without Court supervision. All unknown heirs and heirs whose whereabouts are unknown shall enter their appearance in this proceeding. Objections to such appointment shall be filed with the Register of Wills, D.C., 500 Indiana Avenue, N.W., Washington, D.C. 20001, on or before July 8, 2009. Claims against the decedent shall be presented to the undersigned with a copy to the Register of Wills or filed with the Register of Wills with a copy to the undersigned, on or before July 8, 2009, or be forever barred. Persons believed to be heirs or legatees of the decedent who do not receive a copy of this notice by mail within 25 days of its first publication shall so inform the Register of Wills, including name, address and relationship.

Joseph E. Lloyd
PERSONAL REPRESENTATIVE
Anne Meister
REGISTER OF WILLS

SUPERIOR COURT OF THE DISTRICT OF COLUMBIA
CIVIL DIVISION
ORDER OF PUBLICATION
CHANGE OF NAME
IN RE Application of
ELIZABETH DALE MALLEY and
ELIZABETH DALE MALLEY C/O
THOMAS JAMES MALLEY
CIVIL ACTION NUMBER: 0000082-09
Elizabeth Dale Malley, having filed a complaint for judgment changing Elizabeth Dale Malley name to Elizabeth Dale Long and Thomas James Long, respectively, and having applied to the Court for an order of publication of the notice required by law in such cases, it is by the Court this 7th day of January, 2009 ORDERED that all persons concerned show cause, if any there be, on or before the 13th day of February 2009, why the prayers of said complaint should not be granted. A copy of this order be published once a week for three consecutive weeks before said day in the Washington Post.

PROVIDED FURTHER, that pursuant to SCR 205(b) notice to be sent to applicant's creditors by registered or certified mail and that proof of service of mailing be made in the manner provided in SCR Probate Rule 19(b)./s/ John R. Hess, Judge

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815 Legal Notices

UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA, Plaintiff,
v. CEMEX, S.A.B. de C.V. AND RINKER GROUP LIMITED, Defendants

CASE NO.: 1:07-cv-00640
JUDGE: Hon. Royce C. Lamberth
DECK TYPE: Antitrust
DATE STAMPED:

NOTICE OF PROPOSED MODIFICATION OF THE MODIFIED FINAL JUDGEMENT ENTERED ON NOVEMBER 28, 2007

Take notice that a Joint Motion to Establish Notice and Comment Procedures and to Modify the Modified Final Judgment, a Memorandum of Plaintiff United States in Support of Joint Motion to Establish Notice and Comment Procedures and to Modify the Modified Final Judgment have been filed, and a proposed Order to Establish Notice and Comment Procedures for the Modification of the Modified Final Judgment has been entered. In the United States District Court for the District of Columbia in United States v. Cemex, S.A.B. de C.V. and Rinker Group Limited, Civil No. 1:07-cv-00640. The Modified Final Judgment, entered on November 28, 2007, required Cemex to divest 39 ready mix concrete plants and aggregate plants that served metropolitan areas in Florida and Arizona, including the Orlando, Florida area. On November 30, 2007, Cemex divested these assets to CRH ("CRH"). The current proposed modification would allow Cemex to reacquire Rinker's Kennedy ready mix concrete plant, located at 1406 Atlanta Avenue, Orlando, Florida 32806, which was one of the plants divested to CRH. Cemex's reacquisition of the Kennedy plant from CRH is conditioned on CRH's acquisition of Cemex's own plant in Orlando, which is located only one-half mile away from the Kennedy plant.

Copies of the Joint Motion to Establish Notice and Comment Procedures and to Modify the Modified Final Judgment, the Memorandum of Plaintiff United States in Support of Joint Motion to Establish Notice and Comment Procedures and to Modify the Modified Final Judgment, and the proposed Order to Establish Notice and Comment Procedures for the Modification of the Modified Final Judgment, and all other papers filed with the Court in connection with the motion are available for inspection at the Department of Justice, Antitrust Division, Antitrust Documents Group, 450 Fifth Street, N.W., Suite 1010, Washington, DC 20530 (202-514-2481), on the Department of Justice website (www.usdoj.gov/atr), and at the Office of the Clerk of the United States District Court for the District of Columbia.

Interested persons may address comments to Maribeth Pettrizi, Chief, Litigation II, Antitrust Division, U.S. Department of Justice, City Center Building, 1401 H Street, N.W., Suite 3000, Washington, DC 20530 (202-307-9244), within 30 days of the date of this notice.

820 Official Notices

ABC LICENSE

Compass Group USA, Inc., trading as Flik International Corp., 1711 SAIC Drive, Vienna (Fairfax), Virginia 22102. The above establishment is applying to the VIRGINIA DEPARTMENT OF ALCOHOLIC BEVERAGE CONTROL for a Mixed Beverage Caterers License to sell or manufacture alcoholic beverages. Charles P. Wells, Sr. VP and Secretary.

PUBLIC COMMENT PERIOD FOR THE WASHINGTON REGION'S PROPOSED SUBMISSIONS FOR THE 2009 UPDATE TO THE CONSTRAINED LONG-RANGE PLAN (CLRP), FY 2010-2015 TRANSPORTATION IMPROVEMENT PROGRAM (TIP), AND AIR QUALITY CONFORMITY ANALYSIS

The National Capital Region Transportation Planning Board (TPB) will initiate a 30-day public comment period for the proposed

820 Official Notices

submissions for the 2009 update to the Constrained Long-Range Plan (CLRP) and FY2010-2015 Transportation Improvement Program (TIP), including an air quality conformity analysis, on January 15. This public comment period will extend through Saturday, February 14, 2009. The TPB is scheduled to approve these submissions at its February 18, 2009 meeting. Members of the public are invited to review these draft documents on the COG website, www.mwvco.org/transportation/. These materials may also be reviewed at the Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Washington, DC 20002.

The CLRP shows the road, bridge, high-occupancy vehicle (HOV), transit, bicycle and pedestrian projects funded through the year 2030. The six-year TIP includes all projects, programs, and strategies that state and local transportation agencies plan to implement between 2009 and 2015. The TIP comment process is being used to obtain comments on the region's projects that are funded by the Federal Transit Administration (including Section 5307 funds) and the Federal Highway Administration. The air quality conformity analysis assesses the plan amendments and program with respect to the air quality requirements under the 1990 Clean Air Act Amendments.

Members of the public are invited to submit comments on the draft documents on-line at www.mwvco.org/tpbpubliccomment/. Written comments can also be submitted to TPB Chairman Charles Jenkins, Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Suite 300, Washington, DC 20002.

For additional information or for special assistance, please call (202) 962-3311 or (202) 962-3213 (TDD).

Public Notice

Providence Hospital is in the process of submitting a proposal for a capital assistance grant to implement and expand our program to provide transportation services to the District of Columbia elderly and/or disabled persons utilizing Providence Hospital's programs. We are requesting financial assistance to aid in the purchase of two large buses with wheelchair lifts. The grant will allow Providence Hospital to continue to transport the low-income elderly and the disabled elderly in wheelchairs to physician appointments and community activities. The detailed service plan is available at 1150 Vermont Street, N.E. from 8:30am - 4:30pm, Monday through Friday. Any private transit or paratransit operator wishing additional information or desiring to submit comments or proposals in relation thereto, should contact this agency within seven (7) days of this publication date. Further information may be obtained by calling Mark Todd, 202-269-7340.

PUBLIC NOTICE

Notice is hereby given that Gaslight Development LLC has requested authorization from the Marine Resources Commission to construct a 10-pile mooring dolphin at N 38° 41' 4.75" W 77° 15' 34.18" adjacent to property located at 207 Mill Street situated along the Occoquan River in Prince William County.

Send Comments/Inquiries within 15 days to: Marine Resources Commission, Habitat Management Division, 2600 Washington Avenue, 3rd Floor, Newport News, Virginia 23607.

850 Montgomery County

IN THE CIRCUIT COURT FOR THE COUNTY OF MONTGOMERY, MARYLAND

JOHN S. BURSON
ET AL
TRUSTEE(S)
Plaintiff(s)

vs.
MYRON D. KARK
Defendant(s)
Mortgagor(s)

CIVIL NO. 287549V

NOTICE IS HEREBY GIVEN THIS 16TH day of DECEMBER, 2008 by the Circuit Court for the COUNTY

STREET, Washington, D.C. 20071 published in said COUNTY OF PRINCE GEORGE'S once a week for three successive weeks before the 26TH day of JANUARY, 2009. The report states the amount of the sale to be \$231,313.16.
Peggy Magee #164
Clerk of the Circuit Court For Prince George's County, Maryland

IN THE CIRCUIT COURT FOR THE COUNTY OF PRINCE GEORGE'S, MARYLAND

JOHN S. BURSON
ET AL
TRUSTEE(S)
Plaintiff(s)

vs.
MARIA LUZ VALENTINA BOLO
Defendant(s)
Mortgagor(s)

CIVIL NO. CAE08-25113

NOTICE IS HEREBY GIVEN THIS 6TH day of JANUARY, 2009 by the Circuit Court for the County of Prince George's, Maryland, and by the authority thereof, that the sale made by JOHN S. BURSON, WILLIAM M. SAVAGE, GREGORY N. BRITTO, JASON MURPHY, KRISTIN D. BROWN AND ERIC W. YODER, Trustees of the Real Property designated as 3311 BUNKER HILL RD, MOUNT RAINIER, MD 20712 and reported in the above entitled cause, will be finally ratified and confirmed, unless cause to the contrary thereof be shown on or before the 6TH day of FEBRUARY, 2009 next; provided a copy of this order be inserted in THE WASHINGTON POST, 1150 15TH STREET, Washington, D.C. 20071 published in said COUNTY OF PRINCE GEORGE'S once a week for three successive weeks before the 6TH day of FEBRUARY, 2009.

The report states the amount of the sale to be \$210,000.00.
Peggy Magee #004
Clerk of the Circuit Court For Prince George's County, Maryland

IN THE CIRCUIT COURT FOR THE COUNTY OF PRINCE GEORGE'S, MARYLAND

JOHN S. BURSON
ET AL
TRUSTEE(S)
Plaintiff(s)

vs.
DAISY M. MCDOWELL
Defendant(s)
Mortgagor(s)

CIVIL NO. CAE08-22549

NOTICE IS HEREBY GIVEN THIS 6TH day of JANUARY, 2009 by the Circuit Court for the County of Prince George's, Maryland, and by the authority thereof, that the sale made by JOHN S. BURSON, WILLIAM M. SAVAGE, GREGORY N. BRITTO, JASON MURPHY, KRISTIN D. BROWN AND ERIC W. YODER, Trustees of the Real Property designated as 7765 GREYHOUND ST, HYATTSVILLE, MD 20785 and reported in the above entitled cause, will be finally ratified and confirmed, unless cause to the contrary thereof be shown on or before the 6TH day of FEBRUARY, 2009 next; provided a copy of this order be inserted in THE WASHINGTON POST, 1150 15TH STREET, Washington, D.C. 20071 published in said COUNTY OF PRINCE GEORGE'S once a week for three successive weeks before the 6TH day of FEBRUARY, 2009.

The report states the amount of the sale to be \$148,800.00.

Peggy Magee #004
Clerk of the Circuit Court For Prince George's County, Maryland

IN THE CIRCUIT COURT FOR THE COUNTY OF PRINCE GEORGE'S, MARYLAND

JOHN S. BURSON
ET AL
TRUSTEE(S)
Plaintiff(s)

vs.
DAMON D. HANDON
Defendant(s)
Mortgagor(s)

CIVIL NO. CAE08-23191

NOTICE IS HEREBY GIVEN THIS 6TH day of JANUARY, 2009 by the Circuit Court for the County of Prince George's, Maryland, and by the authority thereof, that the sale made by JOHN S. BURSON, WILLIAM M. SAVAGE, GREGORY N. BRITTO, JASON MURPHY, KRISTIN D. BROWN AND ERIC W. YODER, Trustees of the Real Property designated as 5104 LINWOOD DRIVE, OXON HILL, MD 20745 and reported in the above entitled cause,

IN FOR PR

RANDA ROBERT LAURA D DANIEL JOHN E. Substitt Plaintiff v. DORA FI ROXAN/ Defend: Civ

Notice i day of i Circuit i County, i the prop proceed Talbert I will be unless thereof 15TH da provide be inse publishe each of before t 2009 nex The Rep amount \$260,100 Clerk Prince G

IN FOR PR

RANDA ROBERT LAURA D DANIEL JOHN E. Substitt Plaintiff v. OMARA Defenda Civ

Notice is day of i Circuit i County, i the prop proceed 2314 Fir MD 2071 confirm contrary before t 2009 nex NOTICE e paper pi once in t weeks t JANUARY The Rep amount \$269,036 Clerk: Prince G

IN FOR PR

RANDA ROBERT LAURA D DANIEL JOHN E. Substitt Plaintiff v. CARLOS Defender Civil

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F2 THURSDAY, JUNE 11, 2009 R LF

THE WASHINGTON POST

840 Trustees Sale - DC

840 Trustees Sale - DC

840

H JOBS

HOUSEKEEPING- Applications are now being accepted for FT exp housekeeping positions. Please apply in person. Quality Inn 4783 Allentown Rd Camp Springs, MD. Exit 9 Capital Beltway

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M JOBS

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Mercedes Benz in Fredericksburg, VA is looking for parts personnel and service technicians. Looking for someone to perform duties of PT or FT. Experience is a MUST. Excellent opportunity to work for a growth oriented company. Benefits, 401 (k), good pay, EOE. Call Mike Camlin (540)226-3648

T JOBS

TEACHER- Graduate with Special Education degree wanted.

872 Fairfax County

offer for sale at public auction on the courthouse steps at the front of the Circuit Court building for the County of Fairfax located at 4110 Chain Bridge Road, Fairfax, Virginia on June 16, 2009 at 11:30AM, the property with improvements to wit:

LOT 94, SECTION 10-B, AMERICANA FAIRFAX AS THE SAME APPEARS DULY DEDICATED, PLATTED AND RECORDED IN DEED BOOK 1478, AT PAGE 167, AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA.

AND further described in the above Deed of Trust. (Tax Map No. 0704 11 0094)

THIS COMMUNICATION IS FROM A DEBT COLLECTOR.

TERMS OF SALE: ALL CASH. A bidder's deposit of \$15,000.00 or 10% of the sale price, whichever is lower, will be required in cash, certified or cashier's check. Settlement within fifteen (15) days of sale, otherwise Trustees may forfeit deposit. Additional terms to be announced at sale. Loan type: Conventional. Trustee's File No. 09-1474460.

PROFESSIONAL FORECLOSURE CORPORATION OF VIRGINIA, Substitute Trustees, C/O Shapiro & Burton, LLP, 13135 Lee Jackson Highway, Suite 201, Fairfax, VA

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PUBLIC COMMENT PERIOD FOR THE WASHINGTON REGION'S PROPOSED 2009 UPDATE TO THE CONSTRAINED LONG-RANGE PLAN (CLRP), FY 2010-2015 TRANSPORTATION IMPROVEMENT PROGRAM (TIP), AND AIR QUALITY CONFORMITY ANALYSIS

The National Capital Region Transportation Planning Board (TPB) will initiate a 30-day public comment period for the proposed 2009 update to the Constrained Long-Range Plan (CLRP) and amendments to the FY2010-2015 Transportation Improvement Program (TIP), including an air quality conformity analysis, on June 11, 2009 at the TPB Citizen Advisory Committee (CAC) meeting. The CAC meets from 6 pm to 8 pm in the Metropolitan Washington Council of Governments (COG) first floor conference center, 777 N. Capitol St. NE, Washington, DC 20002. These documents are scheduled to be approved at the July 15, 2009 TPB meeting. This public comment period will extend through 6 pm Saturday July 11, 2009. Members of the public are invited to review these draft documents on the COG website, www.mwco.org/transportation/. These materials may also be reviewed at COG.

The CLRP shows the road, bridge, high-occupancy vehicle (HOV), transit, bicycle and pedestrian projects funded through the year 2030. The six-year TIP includes all projects, programs, and strategies that state and local transportation agencies plan to implement between 2010 and 2015. The TIP comment process is being used to obtain comments on the region's program of projects that are funded by the Federal Transit Administration (including projects funded by the Urbanized Area Formula Program) and the Federal Highway Administration. The air quality conformity analysis assesses the plan amendments and program with respect to the air quality requirements under the 1990 Clean Air Act Amendments.

Members of the public are invited to submit comments on the draft documents on-line at www.mwco.org/tbpubliccomment/. Written comments can also be mailed to TPB Chairman Charles Jenkins, Metropolitan Washington Council of Governments (COG), 777 N. Capitol St. NE, Suite 300, Washington, DC 20002.

For additional information or for special assistance, please call (202) 962-3311 or (202) 962-3213 (TDD).

870 Arlington County

TRUSTEE'S SALE OF
1950 NORTH EDISON STREET,
Arlington, VA 22207

In execution of a Deed of Trust in the original principal amount of \$392,000.00, with an annual interest rate of 6.3750% from DAREN V. WASHINGTON dated March 22, 2006, recorded among the land records of the Circuit Court for the COUNTY OF ARLINGTON as Deed Book/Instrument # 2006082100 RECORDED MARCH 23, 2006, the undersigned appointed Substitute Trustee will offer for sale at public auction at the front of the Circuit Court

872 Fairfax County

TRUSTEE'S SALE OF
1130 WHITWORTH COURT,
Herndon, VA 20170

In execution of a Deed of Trust in the original principal amount of \$336,000.00, with an annual interest rate of 6.3750% from MARCELA MILAGROS MONTAS AND HECTOR MONTAS dated February 21, 2007, recorded among the land records of the Circuit Court for the COUNTY OF FAIRFAX as Deed Book/Instrument # 2007005638.015 RECORDED FEBRUARY 27, 2007, the undersigned appointed Substitute Trustee will offer for sale at public

840 Trustees Sale - DC**DRAPER & GOLDBERG, PLLC.**

803 Sycolin Road
Leesburg, VA 20175
703-777-2448

SUBSTITUTE TRUSTEES' SALE OF VALUABLE property known as 114 WEBSTER STREET NE, WASHINGTON, DC 20011 By virtue of a Deed of Trust recorded in the Land Records of the District of Columbia, on April 3, 2007 as instrument 2007045706, and in accordance with PL 90-566 notice filed on May 15, 2009 and at the request of the party secured thereby, the undersigned Sub. Trustees will offer to sell at public auction within the offices of, **HARVEY WEST AUCTIONEERS, INC.** 5335 Wisconsin Avenue NW Suite 440, Washington, DC 20015, 202-463-4567 On **JUNE 16, 2009 AT 10:15 AM**, the land and premises situated in the District of Columbia, and designated as and being Lot 51 in Square 3668, and more particularly described in said Deed of Trust.

TERMS OF SALE: A deposit of \$25,000.00 will be required at time of sale in cash or certified funds, except from secured party. Property sold in 'AS IS' condition. Subject to liens of record. Conveyance by Trustees' deed. Settlement in 30 days. If Sub. Trustees cannot convey insurable title, purchaser's sole remedy is return of deposit. Additional sale terms announced at sale. Sub. Trustees' File No. 217518.

L. Darren Goldberg, James E. Clarke and Renee Dyson,
Substitute Trustees

HARVEY WEST AUCTIONEERS, INC.

as 1208 CONSTITUTION AVENUE NE, WASHINGTON, DC 20002 By virtue of a Deed of Trust recorded in the Land Records of the District of Columbia, on July 19, 2006 as instrument 2006097611 and in accordance with PL 90-566 notice filed on April 20, 2009 and at the request of the party secured thereby, the undersigned Sub. Trustees will offer to sell at public auction within the offices of, **HARVEY WEST AUCTIONEERS, INC.** 5335 Wisconsin Avenue, NW Suite 440, Washington, DC 20015, 202-463-4567 On **MAY 19, 2009 AT 10:15 AM**, the land and premises situated in the District of Columbia, and designated as and being Lot 831 in Square 1010, and more particularly described in said Deed of Trust.

TERMS OF SALE: A deposit of \$25,000.00 will be required at time of sale in cash or certified funds, except from secured party. Property sold in 'AS IS' condition. Subject to liens of record. Conveyance by Trustees' deed. Settlement in 30 days. If Sub. Trustees cannot convey insurable title, purchaser's sole remedy is return of deposit. Additional sale terms announced at sale. Sub. Trustees' File No. 211584.

By the order of the Substitute Trustees the above sale has been postponed until **JUNE 16, 2009 at 10:15 AM**. All other terms and conditions remain the same.

L. Darren Goldberg, James E. Clarke and Renee Dyson,
Substitute Trustees

HARVEY WEST AUCTIONEERS, INC.

5335 Wisconsin Ave., NW, Ste 440
Washington, DC 20015
202-463-4567
www.hwestauctions.com

JUNE 11, 2009

10822682

DRAPER & GOLDBERG, PLLC.

803 Sycolin Road
Leesburg, VA 20175
703-777-2448

SUBSTITUTE TRUSTEES' SALE OF VALUABLE property known as 1627 F STREET NE, WASHINGTON, DC 20002 By virtue of a Deed of Trust recorded in the Land Records of the District of Columbia, on July 21, 2006 as instrument 2006099061 and in accordance with PL 90-566 notice filed on April 20, 2009 and at the request of the party secured thereby, the undersigned Sub. Trustees will offer to sell at public auction within the offices of, **HARVEY WEST AUCTIONEERS, INC.** 5335 Wisconsin Avenue, NW Suite 440, Washington, DC 20015, 202-463-4567 On **MAY 19, 2009 AT 10:15 AM**, the land and premises situated in the District of Columbia, and designated as and being Lot 817 in Square 4538, and more particularly described in said Deed of Trust.

TERMS OF SALE: A deposit of \$25,000.00 will be required at

DRAPER & GOLDBERG
803 Sycolin Road
Leesburg, VA 20175
703-777-2448

SUBSTITUTE TRUSTEES' SALE OF VALUABLE property known as 221 S STREET NW, WASHINGTON, DC 20002 By virtue of a Deed of Trust recorded in the Land Records of the District of Columbia, on October 19, 2006 as instrument 2006099061 and in accordance with PL 90-566 notice filed on April 20, 2009 and at the request of the party secured thereby, the undersigned Sub. Trustees will offer to sell at public auction within the offices of, **HARVEY WEST AUCTIONEERS, INC.** 5335 Wisconsin Avenue NW Suite 440, Washington, DC 20015, 202-463-4567 On **JUNE 16, 2009 AT 10:15 AM**, the land and premises situated in the District of Columbia, and designated as and being Lot 3098, and more particularly described in said Deed of Trust.

TERMS OF SALE: A deposit of \$25,000.00 will be required at time of sale in cash or certified funds, except from secured party. Property sold in 'AS IS' condition. Subject to liens of record. Conveyance by Trustees' deed. Settlement in 30 days. If Sub. Trustees cannot convey insurable title, purchaser's sole remedy is return of deposit. Additional sale terms announced at sale. Sub. Trustees' File No. 213888.

L. Darren Goldberg, James E. Clarke and Renee Dyson,
Substitute Trustees

Leesburg, VA 20175
703-777-2448

SUBSTITUTE TRUSTEES' SALE OF VALUABLE property known as 2904 CARLTON AVENUE NE, WASHINGTON, DC 20002 By virtue of a Deed of Trust recorded in the Land Records of the District of Columbia, on January 25, 2007 as instrument 2007012034 and in accordance with PL 90-566 notice filed on April 20, 2009 and at the request of the party secured thereby, the undersigned Sub. Trustees will offer to sell at public auction within the offices of, **HARVEY WEST AUCTIONEERS, INC.** 5335 Wisconsin Avenue, NW Suite 440, Washington, DC 20015, 202-463-4567 On **MAY 19, 2009 AT 10:15 AM**, the land and premises situated in the District of Columbia, and designated as and being Lot 818 in Square 1010, and more particularly described in said Deed of Trust.

TERMS OF SALE: A deposit of \$25,000.00 will be required at time of sale in cash or certified funds, except from secured party. Property sold in 'AS IS' condition. Subject to liens of record. Conveyance by Trustees' deed. Settlement in 30 days. If Sub. Trustees cannot convey insurable title, purchaser's sole remedy is return of deposit. Additional sale terms announced at sale. Sub. Trustees' File No. 220742.

By the order of the Substitute Trustees the above sale has been postponed until **JUNE 16, 2009 at 10:15 AM**. All other terms and conditions remain the same.

L. Darren Goldberg, James E. Clarke and Renee Dyson,
Substitute Trustees

HARVEY WEST AUCTIONEERS, INC.

5335 Wisconsin Ave., NW, Ste 440
Washington, DC 20015
202-463-4567
www.hwestauctions.com

JUNE 11, 2009

DRAPER & GOLDBERG
803 Sycolin Road
Leesburg, VA 20175
703-777-2448

SUBSTITUTE TRUSTEES' SALE OF VALUABLE property known as 300 M STREET SW UNIT N 410, WASHINGTON, DC 20002 By virtue of a Deed of Trust recorded in the Land Records of the District of Columbia, on February 21, 2006 as instrument 2006099061 and in accordance with PL 90-566 notice filed on April 20, 2009 and at the request of the party secured thereby, the undersigned Sub. Trustees will offer to sell at public auction within the offices of, **HARVEY WEST AUCTIONEERS, INC.** 5335 Wisconsin Avenue NW S

APPENDIX D

Documentation of Emission Factor Development

- A. 2009 Memo from Sunil Kumar: D1-D4**
- B. 2007 Memo from Sunil Kumar: D5-D31**
- C. 2009 Memo from Daivamani Sivasailam on
VIN Decoder Project: D32-D33**

Memorandum

Date: June 9, 2009

To: Michael Clifford, TPB

From: Sunil Kumar, MWAQC

Subject: MOBILE6 Input Documentation for 2002, 2010, 2020, and 2030 (Ozone Season Day) and 2002, 2010, 2020, and 2030 (Annual) Inventories for 2009 CLRP & 2010-2015 TIP

The purpose of this memorandum is to document the MOBILE6 inputs for developing the onroad emission inventories for calendar years 2002, 2010, 2020, and 2030 for the ozone season day analysis and for calendar years 2002, 2010, 2020, and 2030 for the annual analysis. Separate sets of input files were created to model emission factors corresponding to travel in the COG region for each of these calendar years 1) on network and local roadways, 2) during auto access to transit, and 3) by diesel transit and school buses.

MOBILE6 inputs used in the 2009 CLRP ozone season day analysis for the calendar year 2002 are described in details in the Appendix B (Base Year 2002 Emissions Inventory Document) of the Washington, DC-MD-VA 8-Hour Ozone Nonattainment Area SIP submitted to EPA in June 2007.

Most of the MOBILE6 inputs used in the 2009 CLRP ozone season day analysis for the calendar years 2010, 2020, and 2030 are the same as the 2009 ozone season day analysis inputs described in details in the Appendix E1 (Mob6.2.03 Inventories and Documentation) of the above mentioned document. However, oxygenated fuel parameters and Maryland's I/M programs were revised since the submittal of the 8-Hour Ozone SIP in June 2007 and are being presented in Tables A-1 and A-2 respectively.

MOBILE6 inputs used in the 2009 CLRP annual analysis for the calendar year 2002 are described in details in the Appendix B (Base Year 2002 Emissions Inventory and Documentation) of the Washington, DC-MD-VA Annual PM2.5 Nonattainment Area SIP. There is a change in the oxygenated fuel parameters used for Maryland for the calendar year 2002 analysis since then. This is being presented in Table A-1 below.

Most of the MOBILE6 inputs used in the 2009 CLRP annual analysis for the calendar years 2010, 2020, and 2030 are the same as the 2009 annual analysis inputs described in details in the Appendix E1 (2009 Onroad Mobile Source Emissions Inventories and Documentation) of the above mentioned document. However, oxygenated fuel parameters and Maryland's I/M programs were revised since the submittal of the Annual PM2.5 SIP in March 2008 and are being presented in Tables A-1 and A-2 respectively.

2008 vehicle registration data were used for developing age distribution files for the calendar years 2010, 2020, and 2030.

Maryland adopted CAL-LEV II program and it will be applicable for any evaluation year beginning 2011. Therefore, this program was modeled for the calendar years 2020 and 2030. Following auxiliary files provided by the Maryland Department of the Environment (MDE) staff were used to model the above program for Maryland jurisdictions:

T2 EXH PHASE-IN	: LevIIExh.S11
T2 EVAP PHASE-IN	: LevIIEvp.S11
T2 CERT	: LevIIStd.d
94+ LDG IMP	: LevII94.S11

Updated gasoline RVP and highway diesel sulfur values were used for Maryland jurisdictions for the calendar years 2010, 2020, and 2030. These are provided in Table 3.

**Table A-1
Oxygenated Fuel Parameters**

Details of the format for the oxygenated fuel parameters listed here can found in the Mobile6 model user guide.

*** Oxygenated fuel for Winter & Fall Seasons 2002 (Annual analysis) – Maryland only.**

OXYGENATED FUELS : 1.00 0.000 0.021 0.000 1

*** Oxygenated fuel from Spring 2006 onwards - All Jurisdictions.**

OXYGENATED FUELS : 0.00 1.000 0.000 0.035 1

**Table A-2
I/M Program Parameters for Maryland
(October 2009 and beyond)**

>IM Program as described in post-2009 RFP. Idle, OBD, and Mandatory Gas Cap for Non-OBD Vehicles.

>Waiver rates based on rates observed for January - June 2006 initial tests through 18 months after testing.

>Gas Cap waver rate is performance standard.

>Stringency based on July - December 2007

*Idle older LDGV, LDGT	
I/M PROGRAM	: 1 1984 2050 2 T/O Idle
I/M MODEL YEARS	: 1 1977 1995
I/M VEHICLES	: 1 22222 1111111 1
I/M STRINGENCY	: 1 17.9
I/M COMPLIANCE	: 1 96.0
I/M WAIVER RATES	: 1 13.7 13.7
I/M GRACE PERIOD	: 1 2

*Idle HDGT	
I/M PROGRAM	: 2 1984 2050 2 T/O Idle

I/M MODEL YEARS	: 2 1977 2050
I/M VEHICLES	: 2 11111 22222111 1
I/M STRINGENCY	: 2 17.9
I/M COMPLIANCE	: 2 96.0
I/M WAIVER RATES	: 2 13.7 13.7
I/M GRACE PERIOD	: 2 2

*OBD	
I/M PROGRAM	: 3 1984 2050 2 T/O OBD I/M
I/M MODEL YEARS	: 3 1996 2050
I/M VEHICLES	: 3 22222 11111111 1
I/M STRINGENCY	: 3 17.9
I/M COMPLIANCE	: 3 96.0
I/M WAIVER RATES	: 3 6.3 6.3
I/M GRACE PERIOD	: 3 2

*OBD Evap (Actual Start Year: July 2002)	
I/M PROGRAM	: 4 2002 2050 2 T/O EVAP OBD
I/M MODEL YEARS	: 4 1996 2050
I/M VEHICLES	: 4 22222 11111111 1
I/M COMPLIANCE	: 4 96.0
I/M WAIVER RATES	: 4 6.3 6.3
I/M GRACE PERIOD	: 4 2

*Gas Cap older LDGV, LDGT	
I/M PROGRAM	: 5 2009 2050 2 T/O GC
I/M MODEL YEARS	: 5 1977 1995
I/M VEHICLES	: 5 22222 11111111 1
I/M COMPLIANCE	: 5 96.0
I/M WAIVER RATES	: 5 3.0 3.0
I/M GRACE PERIOD	: 5 2

*Gas Cap HDGT	
I/M PROGRAM	: 6 2009 2050 2 T/O GC
I/M MODEL YEARS	: 6 1977 2050
I/M VEHICLES	: 6 11111 22222111 1
I/M COMPLIANCE	: 6 96.0
I/M WAIVER RATES	: 6 3.0 3.0
I/M GRACE PERIOD	: 6 2

Table A-3
Gasoline RVP & Highway Diesel Sulfur
(2010, 2020, & 2030)

Season	Gasoline RVP (2010, 2020, & 2030)		Highway Diesel Sulfur, ppm (2010)	Highway Diesel Sulfur, ppm (2020 & 2030)
	RFG * Counties	Non-RFG Counties		
Winter	11.7	11.7	14.8	11.0
Summer	7.1	7.8	8.8	8.8
Fall	11.0	11.0	9.7	9.7

* RFG = Reformulated Gasoline

Memorandum

Date: December 12, 2007
To: Michael Clifford, TPB
From: Sunil Kumar, MWAQC
Subject: MOBILE6 Input Documentation for 2002, 2008, 2009, 2010, 2020, and 2030 (Ozone Season Day) and 2002, 2009, 2010, 2020, and 2030 (Annual) Inventories for 2007 CLRP & 2008-2013 TIP

The purpose of this memorandum is to document the MOBILE6 inputs for developing the onroad emission inventories for calendar years 2002, 2008, 2009, 2010, 2020, and 2030 for the ozone season day analysis and for calendar years 2002, 2009, 2010, 2020, and 2030 for the annual analysis. Separate sets of input files were created to model emission factors corresponding to travel in the COG region for each of these calendar years 1) on network and local roadways, 2) during auto access to transit, and 3) by diesel transit and school buses.

MOBILE6 inputs for the calendar year 2002 for ozone season day analysis are described in details in the Appendix B (Base Year 2002 Emissions Inventory Document) of the Washington, DC-MD-VA 8-Hour Ozone Nonattainment Area SIP submitted to EPA in June 2007. MOBILE6 inputs for calendar years 2008 and 2009 for the ozone season day analysis are described in details in the Appendix E1 (Mob6.2.03 Inventories and Documentation) of this document. MOBILE6 inputs for calendar years 2002 annual analysis are described in details in the Appendix B (Base Year 2002 Emissions Inventory and Documentation) of the Washington, DC-MD-VA Annual PM_{2.5} Nonattainment Area SIP. MOBILE6 inputs for the calendar year 2009 annual analysis are described in details in the Appendix E1 (2009 Onroad Mobile Source Emissions Inventories and Documentation) of this document.

Most of the inputs used for 2008 and 2009 ozone season day analyses are also used for calendar years 2008, 2009, 2010, 2020, and 2030 except for oxygenated fuel parameters and Maryland's I/M programs, which were revised since the submittal of 8-Hour Ozone SIP in June 2007 and are being presented in Tables A-1 and A-2 respectively. Maryland's cut-point files for calendar years 2010, 2020, and 2030 used in 2007 ozone season day and annual 2007 CLRP analyses are also being provided below in Tables A-3 and A-4.

Table A-1
Oxygenated Fuel Parameters

Details of the format for the oxygenated fuel parameters listed here can found in the Mobile6 model user guide.

*** Oxygenated fuel from Spring 2006 onwards.**

OXYGENATED FUELS : 0.00 1.000 0.000 0.035 1

Table A-2

I/M Program Parameters for Maryland (2008 and Beyond)

Montgomery and Prince George's

>IM Program. Idle, IM240, and OBD.

>Waiver rates based on July - December 2004 initial tests results through 18 months after testing.

*Idle older LDGV, LDGT	
I/M PROGRAM	: 1 1984 2050 2 T/O Idle
I/M MODEL YEARS	: 1 1977 1983
I/M VEHICLES	: 1 22222 11111111 1
I/M STRINGENCY	: 1 20.0
I/M COMPLIANCE	: 1 96.0
I/M WAIVER RATES	: 1 13.8 13.8
I/M GRACE PERIOD	: 1 2

*Idle HDGT	
I/M PROGRAM	: 2 1984 2050 2 T/O Idle
I/M MODEL YEARS	: 2 1977 2050
I/M VEHICLES	: 2 11111 22222111 1
I/M STRINGENCY	: 2 20.0
I/M COMPLIANCE	: 2 96.0
I/M WAIVER RATES	: 2 13.8 13.8
I/M GRACE PERIOD	: 2 2

*IM240	
I/M PROGRAM	: 3 1984 2050 2 T/O IM240
I/M MODEL YEARS	: 3 1984 1995
I/M VEHICLES	: 3 22222 11111111 1
I/M STRINGENCY	: 3 20.0
I/M COMPLIANCE	: 3 96.0
I/M WAIVER RATES	: 3 13.8 13.8
I/M CUTPOINTS	: 3 IM_ATP\Maryland Model Year Specific Cut-point File
I/M GRACE PERIOD	: 3 2

*OBD	
I/M PROGRAM	: 4 1984 2050 2 T/O OBD I/M
I/M MODEL YEARS	: 4 1996 2050
I/M VEHICLES	: 4 22222 11111111 1
I/M STRINGENCY	: 4 20.0
I/M COMPLIANCE	: 4 96.0
I/M WAIVER RATES	: 4 5.4 5.4
I/M GRACE PERIOD	: 4 2

*OBD Evap (Actual Start Year: July 2002)	
I/M PROGRAM	: 5 2002 2050 2 T/O EVAP OBD
I/M MODEL YEARS	: 5 1996 2050
I/M VEHICLES	: 5 22222 11111111 1
I/M COMPLIANCE	: 5 96.0
I/M WAIVER RATES	: 5 5.4 5.4
I/M GRACE PERIOD	: 5 2

Calvert, Charles, Fredrick

>IM Program. Idle, IM240, and OBD.

>Waiver rates based on July - December 2004 initial tests results through 18 months after testing.

*Idle older LDGV, LDGT	
I/M PROGRAM	: 1 1995 2050 2 T/O Idle
I/M MODEL YEARS	: 1 1977 1983
I/M VEHICLES	: 1 22222 11111111 1
I/M STRINGENCY	: 1 20.0
I/M COMPLIANCE	: 1 96.0
I/M WAIVER RATES	: 1 13.8 13.8
I/M GRACE PERIOD	: 1 2

*Idle HDGT	
I/M PROGRAM	: 2 1995 2050 2 T/O Idle
I/M MODEL YEARS	: 2 1977 2050
I/M VEHICLES	: 2 11111 22222111 1
I/M STRINGENCY	: 2 20.0
I/M COMPLIANCE	: 2 96.0
I/M WAIVER RATES	: 2 13.8 13.8
I/M GRACE PERIOD	: 2 2

*IM240	
I/M PROGRAM	: 3 1995 2050 2 T/O IM240
I/M MODEL YEARS	: 3 1984 1995
I/M VEHICLES	: 3 22222 11111111 1
I/M STRINGENCY	: 3 20.0
I/M COMPLIANCE	: 3 96.0
I/M WAIVER RATES	: 3 13.8 13.8
I/M CUTPOINTS	: 3 IM_ATP\ Maryland Model Year Specific Cut-point File
I/M GRACE PERIOD	: 3 2

*OBD	
I/M PROGRAM	: 4 1995 2050 2 T/O OBD I/M
I/M MODEL YEARS	: 4 1996 2050
I/M VEHICLES	: 4 22222 11111111 1
I/M STRINGENCY	: 4 20.0
I/M COMPLIANCE	: 4 96.0
I/M WAIVER RATES	: 4 5.4 5.4
I/M GRACE PERIOD	: 4 2

*OBD Evap (Actual Start Year: July 2002)	
I/M PROGRAM	: 5 2002 2050 2 T/O EVAP OBD
I/M MODEL YEARS	: 5 1996 2050
I/M VEHICLES	: 5 22222 11111111 1
I/M COMPLIANCE	: 5 96.0
I/M WAIVER RATES	: 5 5.4 5.4
I/M GRACE PERIOD	: 5 2

Table A-2
2010 Cut-Point Parameters for Maryland

Details of the format for the cut-point parameters listed in Tables A-2 through A-4 can be found in the Mobile6 model user guide.

* (SEE P. 16&17 OF EPA REPORT M6.IM.001)

> CY 10

> CUTPOINTS 75% TO FINAL for 1994 and 1995. IMPLEMENTED May 2005.

I/M CUTPOINTS

* Model Years									
* 10	09	08	07	06	05	04	03	02	01
* 00	99	98	97	96	95	94	93	92	91
* 90	89	88	87	86					

* Block 1 (LDGV, Light LDGT1(EPA LD1))									
0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
0.900	0.900	0.900	0.900	0.900	0.900	0.900	1.000	1.000	1.000
1.400	1.400	1.400	1.800	1.800					
20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
30.000	30.000	30.000	30.000	30.000					
2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100
2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.200	2.200	2.200
2.500	2.500	2.500	2.800	2.800					

* Block 2 (Heavy LDGT1, Light LDGT2 (EPA LD2&3))									
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800
1.800	1.800	1.800	1.800	1.800	1.800	1.800	2.000	2.000	2.000
2.400	2.400	2.400	2.800	2.800					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
80.000	80.000	80.000	80.000	80.000					
2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600
2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.700	2.700	2.700
3.000	3.000	3.000	5.800	5.800					

* Model Years									
* 10	09	08	07	06	05	04	03	02	01
* 00	99	98	97	96	95	94	93	92	91
* 90	89	88	87	86					

* Block 3 (Heavy LDGT2(EPA LD4))									
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800
1.800	1.800	1.800	1.800	1.800	1.800	1.800	2.000	2.000	2.000
2.400	2.400	2.400	2.900	2.900					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
80.000	80.000	80.000	80.000	80.000					
3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700
3.700	3.700	3.700	3.700	3.700	3.700	3.700	4.000	4.000	4.000
4.200	4.200	4.200	6.600	6.600					

* Model Years									
* 10	09	08	07	06	05	04	03	02	01
* 00	99	98	97	96	95	94	93	92	91
* 90	89	88	87	86					

* Block 4 (HDGV)(Idle Tested)									
2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
2.200	2.200	2.200	2.500	2.500	2.500	2.500	2.500	2.500	2.500
2.600	2.600	2.600	3.000	4.700					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
80.000	80.000	80.000	80.000	80.000					
4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
4.000	4.000	4.000	5.500	5.500	5.500	5.500	5.500	5.500	5.500
7.000	7.000	7.000	7.700	7.700					

Table A-3
2020 & 2030 Cut-Point Parameters for Maryland

* (SEE P. 16&17 OF EPA REPORT M6.IM.001)
> CY 18 and subsequent years.
> CUTPOINTS 75% TO FINAL FOR 1994 AND 1995. IMPLEMENTED MAY 2005.
I/M CUTPOINTS

* Model Years									
* 18	17	16	15	14	13	12	11	10	09
* 08	07	06	05	04	03	02	01	00	99
* 98	97	96	95	94					

* Block 1 (LDGV, Light LDGT1(EPA LD1))									
0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
0.900	0.900	0.900	0.900	0.900					
20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
20.000	20.000	20.000	20.000	20.000					
2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100
2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100
2.100	2.100	2.100	2.100	2.100					

* Block 2 (Heavy LDGT1, Light LDGT2 (EPA LD2&3))									
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800
1.800	1.800	1.800	1.800	1.800					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000					
2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600
2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600
2.600	2.600	2.600	2.600	2.600					

* Model Years									
* 18	17	16	15	14	13	12	11	10	09
* 08	07	06	05	04	03	02	01	00	99
* 98	97	96	95	94					

* Block 3 (Heavy LDGT2(EPA LD4))									
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800
1.800	1.800	1.800	1.800	1.800					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000					
3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700
3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700
3.700	3.700	3.700	3.700	3.700					

* Model Years									
* 18	17	16	15	14	13	12	11	10	09
* 08	07	06	05	04	03	02	01	00	99
* 98	97	96	95	94					

* Block 4 (HDGV)(Idle Tested)									
2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
2.200	2.200	2.200	2.500	2.500	2.500	2.500	2.500	2.500	2.500
2.600	2.600	2.600	3.000	4.700					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
80.000	80.000	80.000	80.000	80.000					
4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
4.000	4.000	4.000	5.500	5.500	5.500	5.500	5.500	5.500	5.500
7.000	7.000	7.000	7.700	7.700					

Table 1

**MOBILE6 Run Information Common to All COG Counties
For Ozone day and Annual Runs**

Command	Input	Description
MOBILE6 INPUT FILE	No input required.	Specific to Jurisdiction
REPORT FILE	No input required.	Specifies name for descriptive output file(s).
EMISSIONS TABLE	User-supplied	Specifies a file name for the database output file.
SPREADSHEET	User-supplied	Instructs MOBILE6 to output the average calendar year emission factors in a form suitable for direct input into a spreadsheet program.
POLLUTANTS*	Specific to seasonal runs	Controls which HC, CO, and NOx pollutants will be calculated and output to the database report and descriptive output.
PARTICULATE EF*	PMGZML.CSV PMGDR1.CSV PMGDR2.CSV PMDZML.CSV PMDDR1.CSV PMDDR2.CSV	Used for seasonal runs particulate matter (PM _{2.5}) and NOx as a precursor for PM _{2.5} .
EXPRESS HC AS VOC ⁺	No input required.	Directs MOBILE6 to output exhaust HC as volatile organic compounds.
EXPAND EVAPORATIVE ⁺	No input required.	Six evaporative emission types in descriptive output.
EXPAND EXHAUST ⁺	No input required.	Start, running and total exhaust EFs displayed in descriptive output.
NO REFUELING ⁺	No input required.	Used "zero " for refueling (Stage 2) emissions.
WE DA TRI LEN DI	User-supplied	See Table 2
94+ LDG IMP	User-supplied	Used 1994 and later fleet penetration fractions for light-duty gasoline vehicles under the Tier 1, NLEV (or California LEV 1), and Tier 2 standards.
REBUILD EFFECTS	Values supplied by state air agency staff.	Rebuild program effectiveness rate used to reduce heavy-duty diesel vehicle NOx off-cycle emissions. Vary by state: DC 11%,MD 90%, VA 25%
REG DIST	Vary by jurisdiction	2005 Vehicle Registration specific to jurisdiction for 16 composite vehicles types. Reference # 36
ANTI-TAMP PROG	Vary by state	See Table 9
I/M DESC FILE [#]	User-supplied	See Tables 4, 6, and 8
FUEL PROGRAM	Fuel program 4	See Table 18 for values
OXYGENATED FUELS	Regional Values	See Table 18 for values
TEMPERATURE	Ozone season	68.50 min 95.0 max
	Seasonal	24 hourly temperatures. See Table 17 for values.

DIESEL FRACTIONS	Vary by jurisdiction	See Reference # 36
FUEL RVP	Vary by jurisdiction Ozone season	DC 6.80, MD 6.9, VA 6.7
	Seasonal	See Table 18
HUMIDITY	Ozone season	Default values.
	Seasonal	See Table 17
SCENARIO RECORD	Automatically generated.	Allows user to label individual scenario results. Marks start of new scenario.
CALENDAR YEAR	Varies.	Calendar year of scenario evaluated.
EVALUATION MONTH	Varies.	Specifies January 1 (1) or July 1 (7) for calendar year of interest.
ALTITUDE	1	High or low altitude of area evaluated.
BAROMETRIC PRES*	User-supplied	Varies by season. See Table 17
AVERAGE SPEED	Varies. .	See Table 10
SOAK DISTRIBUTION	Varies.	See Table 11
VMT FRACTIONS	Varies. User-supplied.	See Tables 12, 13, 14
VMT BY FACILITY	FV4.FV for freeway ramp; FV3.FV for local roads	MOBILE6 defaults for each scenario.
DIESEL SULFUR*	Varies. User-supplied.	See Reference #36
PARTICLE SIZE*	User-supplied	2.5

+ - Does not apply to PM2.5 analysis (Annual runs).

* - Applies only when modeling PM2.5.

- Used when an ATP or I/M control programs are in effect.

Table 2**Trip Length Distributions**

Length of Trip	MWCOG Regional Percentage of VMT (%)	MOBILE6 Default Percentage of VMT (%)
< 10 Minutes	10.86	6.74
11 - 20 Minutes	24.98	18.51
21 - 30 Minutes	19.71	16.78
31 - 40 Minutes	13.44	13.11
41 - 50 Minutes	9.29	8.33
> 50 Minutes	21.72	36.53

Table 3**LEV Implementation Schedule for MWCOG Region**

Percentage of New Vehicle Sales				
Model Year	Tier 1	Transitional LEV	LEV	Tier 2
1999	30	40	30	0
2000	0	40	60	0
2001	0	0	100	0
2002	0	0	100	0
2003	0	0	100	0
2004+	0	0	0	100

Table 4**2010 I/M Program Parameters for DC**

Test Type	IDLE	IM240	OBD I/M	FP & GC	EVAP OBD & GC	HDGV IDLE
I/M Program Years	1983-2050	1983-2050	1983-2050	1999-2050	1999-2050	1983-2050
Test Frequency	Biennial	Biennial	Biennial	Biennial	Biennial	Biennial
Program Type	T/O	T/O	T/O	T/O	T/O	T/O
Model Years	1968-1983	1984-1995	1996-2050	1972-1995	1996-2050	1972-2050
Stringency Rate (%)	20	20	20	N/A	20	20
Compliance Rate (%)	96	96	96	96	96	96
Waiver Rate (%)	3	3	3	N/A	3	3
Exemption Age	25	25	25	25	25	25
Cutpoint File	N/A	DC_C02	N/A	N/A	N/A	N/A
Vehicles Tested						
LDGV	Yes	Yes	Yes	Yes	Yes	No
LDGT1	Yes	Yes	Yes	Yes	Yes	No
LDGT2	Yes	Yes	Yes	Yes	Yes	No
LDGT3	Yes	Yes	Yes	Yes	Yes	No
LDGT4	Yes	Yes	Yes	Yes	Yes	No
HDGV2B	Yes	Yes	No	Yes	No	Yes
HDGV3	Yes	Yes	No	Yes	No	Yes
HDGV4	Yes	Yes	No	Yes	No	Yes
HDGV5	Yes	Yes	No	Yes	No	Yes
HDGV6	No	No	No	No	No	No
HDGV7	No	No	No	No	No	No
HDGV8A	No	No	No	No	No	No
HDGV8B	No	No	No	No	No	No
GAS BUS	No	No	No	No	No	No

Table 5

* District of Columbia IM240 cutpoints - applies to year 2002 and later

*

>

I/M CUTPOINTS

* Block 1 (LDGV, Light LDGT1(EPA LD1))									
0.800	0.800	0.800	0.800	0.800	0.800	0.800	1.200	1.200	1.200
1.200	1.200	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000
2.000	2.000	2.200	2.000	2.000					
15.000	15.000	15.000	15.000	15.000	15.000	15.000	20.000	20.000	20.000
20.000	20.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000	30.000
30.000	30.000	30.000	30.000	30.000					
2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.500	2.500	2.500
2.500	2.500	3.000	3.000	3.000	3.000	3.000	3.000	3.000	3.000
3.000	3.000	3.000	3.000	3.000					

* Block 2 (Heavy LDGT1, Light LDGT2 (EPA LD2&3))									
1.000	1.000	1.000	1.000	1.000	1.000	1.000	2.400	2.400	2.400
2.400	2.400	3.200	3.200	3.200	3.200	3.200	3.200	3.200	3.200
3.200	3.200	3.200	3.200	3.200					
20.000	20.000	20.000	20.000	20.000	20.000	20.000	60.000	60.000	60.000
60.000	60.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000
80.000	80.000	80.000	80.000	80.000					
2.500	2.500	2.500	2.500	2.500	2.500	2.500	3.000	3.000	3.000
3.000	3.000	3.500	3.500	3.500	7.000	7.000	7.000	7.000	7.000
7.000	7.000	7.000	7.000	7.000					

* Block 3 (Heavy LDGT2(EPA LD4))									
2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400
2.400	2.400	3.200	3.200	3.200	3.200	3.200	3.200	3.200	3.200
3.200	3.200	3.200	3.200	3.200					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000	80.000
80.000	80.000	80.000	80.000	80.000					
4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.500	4.500	4.500
4.500	4.500	5.000	5.000	5.000	7.000	7.000	7.000	7.000	7.000
7.000	7.000	7.000	7.000	7.000					

* Block 4 (HDGV)									
2.400	2.400	2.400	2.400	2.400	3.000	3.000	3.000	3.000	3.000
3.000	3.000	3.200	3.200	3.200	3.200	5.000	5.000	6.000	6.000
6.000	6.000	6.000	6.000	6.000					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	80.000	80.000	80.000	80.000	80.000	80.000	100.000	100.000
100.000	100.000	100.000	100.000	100.000					
4.000	4.000	4.000	4.000	4.000	6.000	6.000	6.000	6.000	6.000
6.000	6.000	8.000	8.000	8.000	8.000	8.000	8.0		

Table 6**2010 I/M Program Parameters for Maryland**

Test Type	IDLE	IM240	OBD I/M	EVAP OBD	IDLE
I/M Program Years	1984-2050	1984-2050	1984-2050	2002-2050	1984-2050
Test Frequency	Biennial	Biennial	Biennial	Biennial	Biennial
Program Type	T/O	T/O	T/O	T/O	T/O
Model Years	1977-1983	1984-1995	1996-2050	1996-2050	1977-2050
Stringency Rate (%)	20	20	20	N/A	20
Compliance Rate (%)	96	96	96	96	96
Waiver Rate (%)	13.8	13.8	13.8	5.4	13.8
Grace Period (years)	2	2	2	2	2
Cutpoint File	N/A	MD_C10	N/A	N/A	N/A
Vehicle Types					
LDGV	Yes	Yes	Yes	Yes	No
LDGT1	Yes	Yes	Yes	Yes	No
LDGT2	Yes	Yes	Yes	Yes	No
LDGT3	Yes	Yes	Yes	Yes	No
LDGT4	Yes	Yes	Yes	Yes	No
HDGV2B	No	No	No	No	Yes
HDGV3	No	No	No	No	Yes
HDGV4	No	No	No	No	Yes
HDGV5	No	No	No	No	Yes
HDGV6	No	No	No	No	Yes
HDGV7	No	No	No	No	No
HDGV8A	No	No	No	No	No
HDGV8B	No	No	No	No	No
GAS BUS	No	No	No	No	No

Table 7

IM240 Cutpoint File (MD_C10) for Maryland

* (SEE P. 16&17 OF EPA REPORT M6.IM.001)

> CY 10

> CUTPOINTS 75% TO FINAL for 1994 and 1995. IMPLEMENTED May 2005.

I/M CUTPOINTS

* Model Years									
* 10	09	08	07	06	05	04	03	02	01
* 00	99	98	97	96	95	94	93	92	91
* 90	89	88	87	86					

* Block 1 (LDGV, Light LDGT1(EPA LD1))									
0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900	0.900
0.900	0.900	0.900	0.900	0.900	0.900	0.900	1.000	1.000	1.000
1.400	1.400	1.400	1.800	1.800					
20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000	20.000
30.000	30.000	30.000	30.000	30.000					
2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.100
2.100	2.100	2.100	2.100	2.100	2.100	2.100	2.200	2.200	2.200
2.500	2.500	2.500	2.800	2.800					

* Block 2 (Heavy LDGT1, Light LDGT2 (EPA LD2&3))									
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800
1.800	1.800	1.800	1.800	1.800	1.800	1.800	2.000	2.000	2.000
2.400	2.400	2.400	2.800	2.800					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
80.000	80.000	80.000	80.000	80.000					
2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.600
2.600	2.600	2.600	2.600	2.600	2.600	2.600	2.700	2.700	2.700
3.000	3.000	3.000	5.800	5.800					

* Model Years									
* 10	09	08	07	06	05	04	03	02	01
* 00	99	98	97	96	95	94	93	92	91
* 90	89	88	87	86					

* Block 3 (Heavy LDGT2(EPA LD4))									
1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800	1.800
1.800	1.800	1.800	1.800	1.800	1.800	1.800	2.000	2.000	2.000
2.400	2.400	2.400	2.900	2.900					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
80.000	80.000	80.000	80.000	80.000					
3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700	3.700
3.700	3.700	3.700	3.700	3.700	3.700	3.700	4.000	4.000	4.000
4.200	4.200	4.200	6.600	6.600					

* Model Years									
* 10	09	08	07	06	05	04	03	02	01
* 00	99	98	97	96	95	94	93	92	91
* 90	89	88	87	86					

* Block 4 (HDGV)(Idle Tested)									
2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200	2.200
2.200	2.200	2.200	2.500	2.500	2.500	2.500	2.500	2.500	2.500
2.600	2.600	2.600	3.000	4.700					
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000	60.000
80.000	80.000	80.000	80.000	80.000					
4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
4.000	4.000	4.000	5.500	5.500	5.500	5.500	5.500	5.500	5.500
7.000	7.000	7.000	7.700	7.700					

Table 8

2010 I/M Program Parameters for Virginia

Test Type	2500/IDLE	ASM 2525/5015 FINAL	OBD I/M	EVAP OBD & GC	GC	2500/ILDE	GC
I/M Program Years	1983-2050	1983-2050	1983-2050	1998-2050	1998-2050	1983-2050	1998-2050
Test Frequency	Biennial	Biennial	Biennial	Biennial	Biennial	Biennial	Biennial
Program Type	TRC	TRC	TRC	TRC	TRC	TRC	TRC
Model Years	1968-1980	1981-1995	1996-2050	1996-2050	1973-1995	1981-2050	1973-2050
Stringency Rate (%)	35	35	35	N/A	N/A	35	N/A
Compliance Rate (%)	98	98	98	98	98	98	98
Waiver Rate (%)	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Exemption Age	24	24	24	24	24	24	24
I/M Effectiveness (%)	N/A	N/A	94	N/A	N/A	N/A	N/A
Grace Period	N/A	N/A	4	4	N/A	4	4
Vehicle Types							
LDGV	Yes	Yes	Yes	Yes	Yes	No	No
LDGT1	Yes	Yes	Yes	Yes	Yes	No	No
LDGT2	Yes	Yes	Yes	Yes	Yes	No	No
LDGT3	Yes	Yes	Yes	Yes	Yes	No	No
LDGT4	Yes	Yes	Yes	Yes	Yes	No	No
HDGV2B	Yes	No	No	No	No	Yes	Yes
HDGV3	No	No	No	No	No	No	No
HDGV4	No	No	No	No	No	No	No
HDGV5	No	No	No	No	No	No	No
HDGV6	No	No	No	No	No	No	No
HDGV7	No	No	No	No	No	No	No
HDGV8A	No	No	No	No	No	No	No
HDGV8B	No	No	No	No	No	No	No
GAS BUS	No	No	No	No	No	No	No

Table 9**Anti-tampering Program Parameters for 2010**

Program Element	DC	MD	VA
Program Start Year	1982	1989	1983
First Model Year	1984	1977	1973
Last Model Year	2050	2050	2050
Program Type	Test Only	Test Only	Test Only
Inspection Frequency	Biennial	Biennial	Biennial
Compliance Rate (%)	96	98	98
Vehicle Types			
LDGV	Yes	Yes	Yes
LDGT1	Yes	Yes	Yes
LDGT2	Yes	Yes	Yes
LDGT3	Yes	Yes	Yes
LDGT4	Yes	Yes	Yes
HDGV2B	Yes	Yes	Yes
HDGV3	Yes	Yes	No
HDGV4	Yes	Yes	No
HDGV5	Yes	Yes	No
HDGV6	Yes	Yes	No
HDGV7	Yes	Yes	No
HDGV8A	Yes	Yes	No
HDGV8B	Yes	Yes	No
GAS BUS	Yes	Yes	No
Inspections Performed			
Air pump system disablement	No	No	Yes
Catalyst removal	Yes	Yes	Yes
Fuel inlet restrictor disablement	Yes	Yes	No
Tailpipe lead deposit test	No	No	No
EGR disablement	No	No	Yes
Evaporative system disablement	No	No	Yes
PCV system disablement	No	No	Yes
Missing gas cap	Yes	Yes	Yes

Table 10

**Summary of Scenarios Modeled in Each MOBILE6 Input File
For Network or Auto Access to Transit Analysis
For ozone season day and annual runs**

Scenario Number	Operating Mode	Facility Type	Average Speed	VMT Fractions	Month\Season Sequence
Ozone\Winter Analysis					
1-65	Stabilized	Arterial\Collectors	1-65 mph	Network or Auto Access	
66-130	Stabilized	Freeways excluding Ramps	1-65 mph	Network or Auto Access	
131	Stabilized	Freeway Ramps	34.6 mph	Network or Auto Access	
132	Cold	Local Roadways	12.9 mph	Network or Auto Access	
133	Hot	Local Roadways	12.9 mph	Network or Auto Access	
134	Stabilized	Local Roadways	12.9 mph	Network or Auto Access	
135-179*	Stabilized	Local Roadways as Arterial	1-45 mph	Local	
Seasonal Analysis					
1-195	Stabilized	Arterial\Collectors	1-65 mph	Network or Auto Access	1-3
196-390	Stabilized	Freeways excluding Ramps	1-65 mph	Network or Auto Access	1-4
391-393	Stabilized	Freeway Ramps	34.6 mph	Network or Auto Access	1-3
394-402	Cold	Local Roadways	12.9 mph	Network or Auto Access	1-3 (for each season, data sequence is as follow: cold, hot, then stabilized)
	Hot	Local Roadways	12.9 mph	Network or Auto Access	
	Stabilized	Local Roadways	12.9 mph	Local or Auto Access	
403-537*	Stabilized	Local Roadways as Arterial	1-45 mph	Local	
Notes: 1. Season: 1 – January thru April; 2 – May thru September; 3 – October thru December 2. * - Applies to network and local road types only.					

24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*1.00
24*0.00	24*0.00						

Hot Start Operating Mode

SOAK DISTRIBUTION							
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*1.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						
24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00	24*0.00
24*0.00	24*0.00						

Table 12

**2010 Summer VMT Mix Fractions
For Network Analysis**

Vehicle Type	2010 Summer VMT Mix Fractions											
	DC	Maryland Counties					Virginia Counties					
		Calvert	Charles	Frederick	Montgomery	Prince George's	Alexandria	Arlington	Fairfax	Loudoun	Prince William	Stafford
LDV	0.3441	0.3517	0.3512	0.3419	0.3406	0.3474	0.3434	0.3433	0.3411	0.3418	0.3461	0.3539
LDT1	0.0907	0.0824	0.0815	0.0863	0.088	0.0851	0.0841	0.088	0.0876	0.0858	0.0843	0.0941
LDT2	0.3172	0.3139	0.3145	0.3202	0.3205	0.3156	0.3219	0.3198	0.3191	0.3208	0.3169	0.3132
LDT3	0.1073	0.1089	0.1094	0.1097	0.1101	0.1092	0.1106	0.1089	0.1101	0.1097	0.1099	0.1033
LDT4	0.0525	0.0548	0.0551	0.0539	0.053	0.0544	0.0521	0.052	0.054	0.0539	0.0546	0.0475
HDV2B	0.0288	0.0264	0.029	0.0262	0.0272	0.0266	0.0274	0.0294	0.026	0.0262	0.0251	0.0253
HDV3	0.0029	0.0027	0.003	0.0027	0.0026	0.0026	0.0025	0.003	0.0025	0.0027	0.0027	0.0025
HDV4	0.0023	0.0019	0.0022	0.0022	0.0022	0.0022	0.0022	0.0024	0.0021	0.0022	0.0021	0.0023
HDV5	0.0026	0.0023	0.0025	0.0024	0.0025	0.0024	0.0022	0.0024	0.0023	0.0024	0.0023	0.0017
HDV6	0.0068	0.0078	0.008	0.0073	0.0073	0.0083	0.0082	0.008	0.0071	0.0072	0.0071	0.0064
HDV7	0.0068	0.0048	0.0064	0.0056	0.0059	0.0059	0.0048	0.0051	0.0056	0.0056	0.0059	0.0076
HDV8A	0.0095	0.007	0.0083	0.0073	0.0071	0.0083	0.0074	0.0092	0.0075	0.0073	0.0075	0.0083
HDV8B	0.0236	0.0305	0.024	0.0297	0.0285	0.027	0.0286	0.0238	0.0304	0.0298	0.0306	0.0292
HDBS	0	0	0	0	0	0	0	0	0	0	0	0
HDBT	0	0	0	0	0	0	0	0	0	0	0	0
MC	0.0049	0.0049	0.0049	0.0046	0.0045	0.005	0.0046	0.0047	0.0046	0.0046	0.0049	0.0047

Table 13

**2010 Summer VMT Mix Fractions
For Local Analysis**

Vehicle Type	2010 Summer VMT Mix Fractions											
	DC	Maryland Counties					Virginia Counties					
		Calvert	Charles	Frederick	Montgomery	Prince George's	Alexandria	Arlington	Fairfax	Loudoun	Prince William	Stafford
LDV	0.3685	0.3767	0.3762	0.3662	0.3648	0.3721	0.3678	0.3677	0.3654	0.3661	0.3707	0.379
LDT1	0.0972	0.0882	0.0873	0.0925	0.0942	0.0911	0.0901	0.0943	0.0939	0.0919	0.0902	0.1008
LDT2	0.3398	0.3362	0.3368	0.3429	0.3433	0.3381	0.3448	0.3425	0.3418	0.3436	0.3394	0.3355
LDT3	0.1149	0.1167	0.1172	0.1175	0.118	0.1169	0.1185	0.1166	0.118	0.1175	0.1178	0.1106
LDT4	0.0562	0.0587	0.059	0.0577	0.0567	0.0583	0.0558	0.0557	0.0578	0.0577	0.0585	0.0509
HDV2B	0.0063	0.0058	0.0063	0.0057	0.0059	0.0058	0.006	0.0064	0.0057	0.0057	0.0055	0.0055
HDV3	0.0006	0.0006	0.0007	0.0006	0.0006	0.0006	0.0005	0.0007	0.0005	0.0006	0.0006	0.0006
HDV4	0.0005	0.0004	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0004	0.0005
HDV5	0.0006	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0004
HDV6	0.0015	0.0017	0.0017	0.0016	0.0016	0.0018	0.0018	0.0017	0.0016	0.0016	0.0016	0.0014
HDV7	0.0015	0.0011	0.0014	0.0012	0.0013	0.0013	0.001	0.0011	0.0012	0.0012	0.0013	0.0016
HDV8A	0.0021	0.0015	0.0018	0.0016	0.0015	0.0018	0.0016	0.002	0.0016	0.0016	0.0016	0.0018
HDV8B	0.005	0.0066	0.0053	0.0065	0.0062	0.0059	0.0062	0.0053	0.0065	0.0065	0.0067	0.0063
HDBS	0	0	0	0	0	0	0	0	0	0	0	0
HDBT	0	0	0	0	0	0	0	0	0	0	0	0
MC	0.0053	0.0053	0.0053	0.005	0.0049	0.0053	0.0049	0.005	0.005	0.005	0.0052	0.0051

Table 14

**2010 Summer VMT Mix Fractions
For Auto Access to Transit Analysis**

Vehicle Type	2010 Summer VMT Mix Fractions											
	DC	Maryland Counties					Virginia Counties					
		Calvert	Charles	Frederick	Montgomery	Prince George's	Alexandria	Arlington	Fairfax	Loudoun	Prince William	Stafford
LDV	0.3754	0.3837	0.3831	0.373	0.3715	0.3789	0.3746	0.3745	0.3721	0.3729	0.3775	0.386
LDT1	0.099	0.0899	0.089	0.0942	0.096	0.0928	0.0918	0.096	0.0956	0.0936	0.0919	0.1026
LDT2	0.3461	0.3424	0.3431	0.3493	0.3496	0.3443	0.3512	0.3489	0.3482	0.3499	0.3457	0.3417
LDT3	0.117	0.1188	0.1194	0.1197	0.1201	0.1191	0.1207	0.1188	0.1202	0.1197	0.1199	0.1127
LDT4	0.0571	0.0598	0.06	0.0587	0.0578	0.0595	0.0567	0.0567	0.0588	0.0588	0.0597	0.0518
HDV2B	0	0	0	0	0	0	0	0	0	0	0	0
HDV3	0	0	0	0	0	0	0	0	0	0	0	0
HDV4	0	0	0	0	0	0	0	0	0	0	0	0
HDV5	0	0	0	0	0	0	0	0	0	0	0	0
HDV6	0	0	0	0	0	0	0	0	0	0	0	0
HDV7	0	0	0	0	0	0	0	0	0	0	0	0
HDV8A	0	0	0	0	0	0	0	0	0	0	0	0
HDV8B	0	0	0	0	0	0	0	0	0	0	0	0
HDBS	0	0	0	0	0	0	0	0	0	0	0	0
HDBT	0	0	0	0	0	0	0	0	0	0	0	0
MC	0.0054	0.0054	0.0054	0.0051	0.005	0.0054	0.005	0.0051	0.0051	0.0051	0.0053	0.0052

Table 15

**2010 VMT Mix Fractions
For School Bus and Transit Bus Analysis**

Vehicle Type	VMT Mix Fractions	
	School Bus	Transit Bus
LDV	0.0000	0.0000
LDT1	0.0000	0.0000
LDT2	0.0000	0.0000
LDT3	0.0000	0.0000
LDT4	0.0000	0.0000
HDV2B	0.0000	0.0000
HDV3	0.0000	0.0000
HDV4	0.0000	0.0000
HDV5	0.0000	0.0000
HDV6	0.0000	0.0000
HDV7	0.0000	0.0000
HDV8A	0.0000	0.0000
HDV8B	0.0000	0.0000
HDBS	1.0000	0.0000
HDBT	0.0000	1.0000
MC	0.0000	0.0000

Table 16

**Summary of Scenarios Modeled in Each MOBILE6 Input File
For School Bus or Transit Bus Analysis**

Scenario Number	Operating Mode	Facility Type	Speed
1-65	Stabilized	Arterial/Collectors	1-65 mph
66	Stabilized	Freeway Ramps	34.6 mph
67	Stabilized	Local Road	12.9 mph

Table 17a

**Hourly Temperatures and Humidity Values and Barometric Pressure
Season 1**

Hour	Temp	DPT	Cal. RH	NCDC RH	Station Pressure
1	39.8	29.5	66.5	69.1	29.9
2	39.0	29.3	68.0	70.2	29.9
3	38.2	29.1	69.3	71.5	29.9
4	37.6	29.1	71.0	72.8	29.9
5	37.2	29.0	72.0	73.9	29.9
6	36.9	28.9	72.4	74.3	29.9
7	37.4	29.1	71.7	73.7	29.9
8	38.9	29.3	68.2	70.7	29.9
9	41.2	29.7	63.4	66.3	29.9
10	43.4	29.7	58.1	61.2	29.9
11	45.5	29.9	54.2	57.8	29.9
12	47.2	30.0	50.7	54.7	29.9
13	48.6	29.9	48.1	52.4	29.9
14	49.7	30.1	46.5	51.1	29.8
15	50.2	30.0	45.5	50.3	29.8
16	50.2	30.0	45.5	50.4	29.8
17	49.3	30.0	47.1	51.7	29.8
18	47.5	29.8	49.9	54.3	29.8
19	45.8	29.8	53.4	57.2	29.9
20	44.3	30.0	56.9	60.3	29.9
21	43.1	30.0	59.4	62.5	29.9
22	42.3	29.7	60.8	63.9	29.9
23	41.4	29.8	63.0	65.8	29.9
24	40.6	29.8	65.0	67.6	29.9

Table 17b
Season 2

Hour	Temp	DPT	Cal. RH	NCDC RH	Station Pressure
1	67.3	61.9	82.5	83.5	29.8
2	66.6	61.5	83.5	84.5	29.8
3	66.2	61.4	84.3	85.5	29.8
4	65.8	61.1	84.7	86.2	29.8
5	65.3	60.9	85.5	86.6	29.8
6	65.7	61.1	85.1	85.9	29.8
7	67.6	61.7	81.0	82.3	29.8
8	69.9	62.2	76.0	77.2	29.9
9	72.3	62.3	70.4	72.2	29.9
10	74.5	62.2	65.1	67.3	29.9
11	76.3	62.0	60.6	63.1	29.8
12	77.9	62.0	57.6	60.1	29.8
13	78.9	61.8	55.2	57.8	29.8
14	79.5	61.6	53.6	56.7	29.8
15	79.5	61.6	53.6	56.9	29.8
16	79.1	61.7	54.5	57.6	29.8
17	78.4	61.7	55.9	59.2	29.8
18	76.9	61.8	59.2	62.1	29.8
19	74.7	62.0	64.2	66.8	29.8
20	72.5	62.3	69.8	71.8	29.8
21	71.2	62.5	73.5	75.6	29.8
22	69.9	62.4	76.7	78.7	29.8
23	68.9	62.3	79.2	80.6	29.8
24	68.0	62.1	81.1	82.2	29.8

Table 17c
Season 3

Hour	Temp	DPT	Cal. RH	NCDC RH	Station Pressure
1	44.61	37.50	75.82	77.56	29.87
2	44.06	37.28	76.78	78.44	29.87
3	43.56	37.22	78.10	79.39	29.87
4	43.17	36.83	78.07	80.33	29.87
5	42.67	36.67	79.07	80.28	29.88
6	42.44	36.39	78.88	80.56	29.88
7	42.56	36.44	78.71	80.39	29.89
8	43.89	37.22	77.10	78.89	29.90
9	46.33	37.72	71.61	73.61	29.91
10	48.83	38.00	65.85	68.22	29.91
11	50.67	37.72	60.79	63.33	29.90
12	52.39	37.56	56.63	59.78	29.88
13	53.56	37.39	53.87	57.17	29.86
14	54.22	37.44	52.68	56.28	29.85
15	54.33	37.50	52.57	56.22	29.84
16	53.72	37.56	53.89	57.56	29.84
17	52.00	37.44	57.20	60.44	29.85
18	50.11	37.56	61.66	64.56	29.86
19	48.78	37.67	65.12	67.83	29.87
20	47.72	37.56	67.48	70.06	29.87
21	46.94	37.89	70.42	72.44	29.88
22	46.33	37.72	71.61	74.00	29.88
23	45.56	37.61	73.44	75.50	29.88
24	45.00	37.56	74.86	76.56	29.88

Table 18

Fuel Parameters

	DC			MD			MD Non-RFG	VA			VA Non-RFG
	Gas S	Diesel S	RVP	Gas S	Diesel S	RVP	RVP	Gas S	Diesel S	RVP	RVP
Season 1	197.0	325.0	10.2	279.0	480.5	12.4	12.4	279.0	337.0	12.9	12.9
Season 2/OS	159.0	327.8	6.8	129.0	476.0	6.9	7.9	129.0	351.8	6.7	8.4
Season 3	196.2	325.3	10.1	279.0	481.3	11.2	11.2	279.0	339.3	12.9	12.9

Ether Oxy. Content (% by wt)	Ether Market Share (%)	Ethanol Oxy. Content (% by wt.)	Ethanol Market Share (%)
1.5	70.0	3.5	30.0
2.1	100.0	0.0	0.0
1.5	70.0	3.5	30.0

National Capital Region Transportation Planning Board

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June 9, 2009

To: VIN Decoder Project Files

From: Daivamani Sivasailam
Principal Transportation Engineer

Subject: Development of vehicle age distributions and diesel vehicle percentages using VIN decoder software – 2008 Registration Data

Introduction

This memorandum summarizes the methodology used, and the results obtained, in developing Mobile 6 input files of vehicle characteristics data summarized from 2008 District of Columbia, Maryland and Virginia vehicle registration data. EPA's Mobile 6 model requires age distribution (1-25+ years) and diesel fueled vehicle percentages for 16 separate vehicle types (passenger cars, motorcycles, light trucks, and heavy trucks in ascending weight categories). The model then generates 28 vehicle types by applying the diesel percentages to the relevant vehicle types. This work continues the cycle of obtaining consistent vehicle registrations on a 3 year basis. These results will be used in the development of the mobile source emissions inventories for the air quality conformity assessment of 2009 Constrained Long Range Plan (CLRP) and FY 2010-2015 Transportation Improvement Program.

Background

In 2005, Department of Transportation Planning staff embarked on the use of VIN decoder software to develop registration and diesel sales percentages. Similarly during the Summer of 2008 the newest version of the software was purchased and registration data were obtained from the three state air agencies as of July 1, 2008. Using an approach similar to the 2005 exercise staff successfully decoded the VIN numbers and developed jurisdictional level vehicle age distribution and diesel sales fraction files.

Committee Review

Several conference calls and meetings were held with air and transportation department representatives to discuss the results, and a number of changes were suggested to improve the vehicle age distributions and diesel vehicle percentages. Changes to the procedures as compared to the 2005 exercise are listed below.

1) Vehicles Aged 25 Years and Older:

Since the VIN decoder software could not fully decode vehicles manufactured prior to 1981, staff used the registration data base (which contained control totals of total number of vehicle registrations by model year) to identify the total number of vehicles that were 25 years and older. These vehicles were then distributed among the 16 vehicle types using the vehicle type distribution of vehicles aged 25 through 27 that were decoded using the software.

2) Aggregation of Diesel Fractions by Jurisdiction

In Maryland and Northern Virginia, age distributions by vehicle type were developed at the county level. However, diesel percentages by vehicle type were aggregated to represent all counties in Maryland, and all jurisdictions in Northern Virginia. The District's data, due to an under-representation of vehicles for some types, were combined with the urban jurisdictions of Montgomery, Prince George's, Alexandria, Arlington and Fairfax to develop diesel vehicle percentages for the District of Columbia.

Detailed Documentation

Three individual detailed memoranda, one each for the District of Columbia, Maryland, and Virginia, have been prepared and are available upon request. These memos detail the work activities including control totals, data tables, and charts of the age distribution and diesel vehicle fractions for each vehicle type.

APPENDIX E

Documentation of Mobile Source Emission Calculations (post-processor)

MEMORANDUM

TO: Files

FROM: Ronald Milone & Hamid Humeida

DATE: May 26, 2009

SUBJECT: Mobile Emissions Post-Processor Description and Results

1.0 Introduction

This memorandum describes the mobile emissions post-processor used to support the Air Quality Conformity Determination of the 2009 CLRP and the FY2010-2015 TIP. The post-processor is a series of TP+ scripts that are used to calculate regional mobile source emissions. The emissions are developed on the basis of travel demand information produced by the regional travel demand model and emission rates produced from the EPA mandated Mobile model. The TPB's currently adopted travel model is known as the Version 2.2 (Spring 2009). The current Mobile program is version 6.2.03¹ (September 2003). The post-processor computes mobile emissions in terms of volatile organic compounds (VOC/HC), carbon monoxide (CO), oxides of nitrogen (NOx), and fine particulates (PM_{2.5})² which include NOx precursors. The post-processor computes average *daily* VOC, CO, and NOx emissions for both wintertime and summer seasons. It is also used to compute *annual* NOx precursor and PM_{2.5} emissions.

The post-processor computes mobile emissions attributable to *modeled* trips and VMT. It is also used to compute emissions of local, or off-network, traffic. These account for most, but not all, of mobile emissions that occur on a given day. Other off-network sources include vehicle-related (diurnal and resting loss) emissions as well as emissions relating to buses, and park-and-ride travel, which are computed using off-line procedures. These types of emission calculations are not addressed in this memorandum.

2.0 Post-Processor Overview

Mobile emissions are computed essentially by multiplying a unit of travel, as produced by the travel demand model, by an associated emission rate, as developed by the Mobile 6 model. The TPB emissions forecasts are based on computations for each stage of the trip cycle. In other words, *per trip* rates are developed to compute starting and soaking emissions, while *per mile* rates are developed to compute hot-stabilized (or running) emissions. Table 1 shows greater detail regarding the generalized emission calculation by trip cycle and pollutant. It is important to note that the emission rates are developed for specific seasons because weather conditions are important factors used in the emissions model. It is also important to note that emissions rates

¹ U.S. Environmental Protection Agency, Office of transportation and Air Quality. (2004). Technical Guidance on the Use of Mobile6.2 for Emission Inventory Preparation. U.S. Environmental Protection Agency.

² Airborne Particulate Matter (of size <2.5 µm) are air pollutants with a diameter of 2.5 micrometers or less, small enough to invade even the smallest airways.

are calculated by hour of the day, so the emissions post processor includes a peak spreading routine (see Table 12). Since the regional travel demand model develops forecasts in terms of average annual weekday (AAWT) conditions, seasonal factors are applied to the travel model data to be consistent with the seasonal emissions rate. Table 2 shows the conversion factors, which were developed based on local permanent count data. Seasonal adjustments are currently applied only to network link VMT. At present, there are no such conversion factors applied to modeled vehicle trips which are used to develop starting or soak emissions.

Table 1: Summary of Mobile Emissions Calculation by Emission Type and Pollutant

Emission Type	Pollutant	Emission Rate Description	Travel Unit Description	How Emissions are Computed
Running/ On-Network	VOC CO NOx	gm/mile, by jurisdiction, facility type and speed	Vehicle miles	Emission rate * travel unit, computed at network link level, by hour of day
	PM _{2.5}	gm/mile, by jurisdiction	vehicle miles	Emission rate * travel unit, computed at network link level
Start-Up	VOC CO NOx	gm/trip, by jurisdiction and engine condition (hot/cold)	Vehicle starts	Emission rate * travel unit, computed at TAZ level, by hour of day
Soak	VOC	gm/trip, by jurisdiction	Vehicle stops	Emission rate * travel unit, computed at TAZ level
Running / Local (Off-Network)	VOC CO NOx	gm/mile, by jurisdiction in urbanized areas; by jurisdiction and speed in rural areas	vehicle miles	Emission rate * travel unit, computed at jurisdiction level, stratified by urban and rural areas; rural areas are further stratified by speed ranges
	PM _{2.5}	gm/mile, by jurisdiction	vehicle miles	Emission rate * travel unit, Computed at jurisdiction level

Table 2: Conversion Factors for Converting AAWT to Seasonal Travel

Analysis Period	Pollutants Analyzed	Duration of Seasonal Period	Conversion Factor Applied to AAWT	Result of Conversion
Summer / Ozone Season	VOC NOx	May to September	1.05	Seasonal AAWT
Wintertime Season	CO	December to February	0.97	Seasonal AAWT
Annual Total (sum of 3 seasons)	PM _{2.5} NOx precursor	January to April	0.92	Seasonal ADT
		May to September	0.99	Seasonal ADT
		October to December	0.93	Seasonal ADT

Table 2 also indicates the key pollutants of interest in the Washington, D.C. region vary by season. VOC and NOx emissions are most severe during the summer season while CO emissions are highest during the winter. PM_{2.5} and NOx precursor emissions are developed as annualized figures based on the sum of three separate seasonal computations.

3.0 Mobile 6 Rates

Table 1 indicates that the emission rates are developed on a jurisdictional basis. This is done because many parameters used the Mobile 6 model vary by location, for example, inspection and maintenance programs, vehicle fleet mix, etc. Emission rates are currently prepared for 16 individual jurisdictions which are listed in Table 3. These include jurisdictions both in and around the non-attainment area. The table indicates that the 16 sets of modeled emission rates are ultimately applied to reflect 27 jurisdictions (or external stations) using ‘nearest-neighbor’ assumptions.

Table 3: Jurisdictional Emission Areas

Emission Area System Number	Jurisdiction / External Area	MSA Member Yes/No	Mobile Rates Modeled/Borrowed
1	Washington, DC	Yes	Modeled
2	Montgomery County	Yes	Modeled
3	Prince George’s County	Yes	Modeled
4	Howard County	No	Borrowed (Prince George’s Co.)
5	Anne Arundel County	No	Borrowed (Prince George’s Co.)
6	Carroll County	No	Borrowed (Prince George’s Co.)
7	Baltimore Area Externals	No	Borrowed (Prince George’s Co.)
8	Calvert County	Yes	Modeled
9	Charles County	Yes	Modeled
10	Frederick County	Yes	Modeled
11	Frederick Co. Externals	No	Borrowed (Frederick Co.)
12	Arlington	Yes	Modeled
13	Fairfax County	Yes	Modeled
14	Loudoun County	Yes	Modeled
15	Prince William County	Yes	Modeled
16	Stafford County	Yes	Modeled
17	City of Alexandria	Yes	Modeled
18	St. Mary’s County	No	Modeled
19	Washington Co. Externals	No	Modeled
20	Clarke County	No	Modeled
21	Fauquier County	No	Borrowed (Clarke Co.)
22	Jefferson Co, WVA	No	Borrowed (Clarke Co.)
23	Western External Area	No	Borrowed (Clarke Co.)
24	Spotsylvania County	No	Modeled
25	King George County	No	Borrowed (Spotsylvania Co.)
26	City of Fredericksburg	No	Borrowed (Spotsylvania Co.)
27	Southern External Area	No	Borrowed (Spotsylvania Co.)

Table 1 also indicates that, beyond jurisdictional considerations, the running emission rates are further specified by facility and speed, and starting emissions are further segmented by ‘hot’ and ‘cold’ engine conditions. In all, 179 Mobile model executions are prepared for each jurisdiction, for given season. These executions are currently run in batch. The sequence of scenarios generated by the batch of Mobile 6 executions is shown on Table 4. Each scenario represents a unique condition pertaining to the vehicle operating mode, facility type, and speed. Because annualized emissions are desired for the PM_{2.5} pollutant, the generation of Mobile rates procedures is expanded to reflect multiple seasons. Annualized NO_x and PM_{2.5} emissions are

currently developed on the basis of three seasonal periods. The associated Mobile 6 scenarios that are batched together for three seasons are listed shown on Table 5. Three utility programs have been developed to read the Mobile 6 output rate listings and create emission rate files that are readable by the TP+ scripts. These programs are named:

- 1) M6RATES.EXE (single season / VOC, CO, NO_x rates)
- 2) M6RATES_3S_HCN.EXE (three-season VOC, CO, NO_x rates)
- 3) M6RATES_3S_PM.EXE (three-season PM_{2.5} rates)

Table 4: Sequence of Mobile Scenarios Generated for a Single Season

MOBILE6 'Scenarios'	Operating Mode	Facility Type	Speed Specifications
1- 65	Stabilized	Arterial	1 to 65 mph in 1 mph increments
66-130	Stabilized	Freeway, Non-Ramp	1 to 65 mph in 1 mph increments
131	Stabilized	Freeway Ramp	Single speed / 35.0 mph
132	Cold	Local	Single speed / 12.9 mph
133	Hot	Local	Single speed / 12.9 mph
134	Stabilized	Local	Single speed / 12.9 mph
135-179	Stabilized	Arterial(w/ Rural VMT Mix)	1 to 45 mph in 1 mph increments

Table 5: Sequence of Mobile Scenarios Generated for Three Seasons

MOBILE6 'Scenarios'	Season	Op. Mode	Facility Type	Speed Specifications
1- 65	Jan-Apr	Stabilized	Arterial	1 to 65 mph in 1 mph increments
66-130		Stabilized	Freeway, Non-Ramp	1 to 65 mph in 1 mph increments
131		Stabilized	Freeway Ramp	Single speed / 35.0 mph
132		Cold	Local	Single speed / 12.9 mph
133		Hot	Local	Single speed / 12.9 mph
134		Stabilized	Local	Single speed / 12.9 mph
135-179		Stabilized	Arterial(w/ Rural VMT Mix)	1 to 45 mph in 1 mph increments
180- 244	May-Sep	Stabilized	Arterial	1 to 65 mph in 1 mph increments
245-309		Stabilized	Freeway, Non-Ramp	1 to 65 mph in 1 mph increments
310		Stabilized	Freeway Ramp	Single speed / 35.0 mph
311		Cold	Local	Single speed / 12.9 mph
312		Hot	Local	Single speed / 12.9 mph
313		Stabilized	Local	Single speed / 12.9 mph
314-358		Stabilized	Arterial(w/ Rural VMT Mix)	1 to 45 mph in 1 mph increments
359-423	Oct-Dec	Stabilized	Arterial	1 to 65 mph in 1 mph increments
424-488		Stabilized	Freeway, Non-Ramp	1 to 65 mph in 1 mph increments
489		Stabilized	Freeway Ramp	Single speed / 35.0 mph
490		Cold	Local	Single speed / 12.9 mph
491		Hot	Local	Single speed / 12.9 mph
492		Stabilized	Local	Single speed / 12.9 mph
493-537		Stabilized	Arterial(w/ Rural VMT Mix)	1 to 45 mph in 1 mph increments

The final emission rate files used in single-season post-processor runs and three-season post-processor runs are shown on Tables 5 and 6 respectively. The tables indicate the filename

convention used for a given post-processor run. The first characters of the file name are user specified, but the end-characters of the name are standardized. Table 5 indicates that 96 rate files are used in a single-season run, while 320 rate files are used in three season post-processor runs.

Table 6: Listing of Emission Rate Filenames Prepared for the Post-Processor / Single-Season Post-Processor

Jurisdiction	Running Arterial Rates	Running Freeway Rates	Running Freeway Ramp Rates	Starting (Hot/Cold) Rates	Running Local Rates	Running Local -Rural Arterial Rates
	<i>VOC, CO, Nx Rates by speed</i>	<i>VOC, CO, Nx Rates by speed</i>	<i>VOC, CO, Nx Rates @ 35 mph</i>	<i>Hot VOC, CO, Nox / Cold VOC, CO, Nox Rates</i>	<i>VOC, CO, Nox Rates @ 12.9 mph</i>	<i>VOC, CO, Nx Rates by speed</i>
Alexandria	<prefix>AL.r_a	<prefix>AL.r_f	<prefix>AL.ram	<prefix>AL.stt	<prefix>AL.lcl	<prefix>AL.r_r
Arlington	<prefix>AR.r_a	<prefix>AR.r_f	<prefix>AR.ram	<prefix>AR.stt	<prefix>AR.lcl	<prefix>AR.r_r
Calvert	<prefix>CA.r_a	<prefix>CA.r_f	<prefix>CA.ram	<prefix>CA.stt	<prefix>CA.lcl	<prefix>CA.r_r
Charles	<prefix>CH.r_a	<prefix>CH.r_f	<prefix>CH.ram	<prefix>CH.stt	<prefix>CH.lcl	<prefix>CH.r_r
Calvert	<prefix>CL.r_a	<prefix>CL.r_f	<prefix>CL.ram	<prefix>CL.stt	<prefix>CL.lcl	<prefix>CL.r_r
DC	<prefix>DC.r_a	<prefix>DC.r_f	<prefix>DC.ram	<prefix>DC.stt	<prefix>DC.lcl	<prefix>DC.r_r
Frederick	<prefix>FR.r_a	<prefix>FR.r_f	<prefix>FR.ram	<prefix>FR.stt	<prefix>FR.lcl	<prefix>FR.r_r
Fairfax	<prefix>FX.r_a	<prefix>FX.r_f	<prefix>FX.ram	<prefix>FX.stt	<prefix>FX.lcl	<prefix>FX.r_r
Loudoun	<prefix>LD.r_a	<prefix>LD.r_f	<prefix>LD.ram	<prefix>LD.stt	<prefix>LD.lcl	<prefix>LD.r_r
Montgomery	<prefix>MC.r_a	<prefix>MC.r_f	<prefix>MC.ram	<prefix>MC.stt	<prefix>MC.lcl	<prefix>MC.r_r
Pr. George's	<prefix>PG.r_a	<prefix>PG.r_f	<prefix>PG.ram	<prefix>PG.stt	<prefix>PG.lcl	<prefix>PG.r_r
Pr. William	<prefix>PW.r_a	<prefix>PW.r_f	<prefix>PW.ram	<prefix>PW.stt	<prefix>PW.lcl	<prefix>PW.r_r
St. Mary's	<prefix>SM.r_a	<prefix>SM.r_f	<prefix>SM.ram	<prefix>SM.stt	<prefix>SM.lcl	<prefix>SM.r_r
Sprotsylvania	<prefix>SP.r_a	<prefix>SP.r_f	<prefix>SP.ram	<prefix>SP.stt	<prefix>SP.lcl	<prefix>SP.r_r
Stafford	<prefix>ST.r_a	<prefix>ST.r_f	<prefix>ST.ram	<prefix>ST.stt	<prefix>ST.lcl	<prefix>ST.r_r
Washington Co	<prefix>WE.r_a	<prefix>WE.r_f	<prefix>WE.ram	<prefix>WE.stt	<prefix>WE.lcl	<prefix>WE.r_r

Table 7: Listing of Emission Rate Filenames Prepared for the Post-Processor / Three – Season Post-Processor

Running Arterial Rates								Running Freeway Rates	Running Freeway Ramp Rates	Starting (Hot/Cold) Rates	Running Local Rates	Running Local -Rural Arterial Rates	Seasonal PM _{2.5} Network and Local Rates		
Pollutant	Jurisdiction	Seasonal Rates by speed		Seasonal Rates by speed	Seasonal Rates @ 35 mph speed	Seasonal Hot/Cold Rates	Seasonal Rates @ 12.9 mph speed	Seasonal Rates by speed	Pollutant	Jurisdiction	Seasonal Soak Rates				
CO	Alexandria	<prefix>COAL.arC	<prefix>COAL.frC	<prefix>COAL.rmC	<prefix>COAL.stC	<prefix>COAL.lcC	<prefix>COAL.rrC	PM _{2.5} Seasonal Network / Seasonal Local		Alexandria	<prefix>pmAL.N_L				
	Arlington	<prefix>COAR.arC	<prefix>COAR.frC	<prefix>COAR.rmC	<prefix>COAR.stC	<prefix>COAR.lcC	<prefix>COAR.rrC			Arlington	<prefix>pmAR.N_L				
	Calvert	<prefix>COCA.arC	<prefix>COCA.frC	<prefix>COCA.rmC	<prefix>COCA.stC	<prefix>COCA.lcC	<prefix>COCA.rrC			Calvert	<prefix>pmCA.N_L				
	Charles	<prefix>COCH.arC	<prefix>COCH.frC	<prefix>COCH.rmC	<prefix>COCH.stC	<prefix>COCH.lcC	<prefix>COCH.rrC			Charles	<prefix>pmCH.N_L				
	Calvert	<prefix>COCL.arC	<prefix>COCL.frC	<prefix>COCL.rmC	<prefix>COCL.stC	<prefix>COCL.lcC	<prefix>COCL.rrC			Calvert	<prefix>pmCL.N_L				
	DC	<prefix>CODO.arC	<prefix>CODO.frC	<prefix>CODO.rmC	<prefix>CODO.stC	<prefix>CODO.lcC	<prefix>CODO.rrC			DC	<prefix>pmDC.N_L				
	Frederick	<prefix>COFR.arC	<prefix>COFR.frC	<prefix>COFR.rmC	<prefix>COFR.stC	<prefix>COFR.lcC	<prefix>COFR.rrC			Frederick	<prefix>pmFR.N_L				
	Fairfax	<prefix>COFX.arC	<prefix>COFX.frC	<prefix>COFX.rmC	<prefix>COFX.stC	<prefix>COFX.lcC	<prefix>COFX.rrC			Fairfax	<prefix>pmFX.N_L				
	Loudoun	<prefix>COLD.arC	<prefix>COLD.frC	<prefix>COLD.rmC	<prefix>COLD.stC	<prefix>COLD.lcC	<prefix>COLD.rrC			Loudoun	<prefix>pmLD.N_L				
	Montgomery	<prefix>COMC.arC	<prefix>COMC.frC	<prefix>COMC.rmC	<prefix>COMC.stC	<prefix>COMC.lcC	<prefix>COMC.rrC			Montgomery	<prefix>pmMC.N_L				
	Pr. George's	<prefix>COPG.arC	<prefix>COPG.frC	<prefix>COPG.rmC	<prefix>COPG.stC	<prefix>COPG.lcC	<prefix>COPG.rrC			Pr. George's	<prefix>pmPG.N_L				
	Pr. William	<prefix>COPW.arC	<prefix>COPW.frC	<prefix>COPW.rmC	<prefix>COPW.stC	<prefix>COPW.lcC	<prefix>COPW.rrC			Pr. William	<prefix>pmPW.N_L				
	St. Mary's	<prefix>COSM.arC	<prefix>COSM.frC	<prefix>COSM.rmC	<prefix>COSM.stC	<prefix>COSM.lcC	<prefix>COSM.rrC			St. Mary's	<prefix>pmSM.N_L				
	Sprotsylvania	<prefix>COSP.arC	<prefix>COSP.frC	<prefix>COSP.rmC	<prefix>COSP.stC	<prefix>COSP.lcC	<prefix>COSP.rrC			Sprotsylvania	<prefix>pmSP.N_L				
	Stafford	<prefix>COST.arC	<prefix>COST.frC	<prefix>COST.rmC	<prefix>COST.stC	<prefix>COST.lcC	<prefix>COST.rrC			Stafford	<prefix>pmST.N_L				
	Washington Co	<prefix>COWE.arC	<prefix>COWE.frC	<prefix>COWE.rmC	<prefix>COWE.stC	<prefix>COWE.lcC	<prefix>COWE.rrC			Washington Co	<prefix>pmWE.N_L				
VOC	Alexandria	<prefix>HCAL.arH	<prefix>HCAL.frH	<prefix>HCAL.rmH	<prefix>HCAL.stH	<prefix>HCAL.lcH	<prefix>HCAL.rrH								
	Arlington	<prefix>HCAR.arH	<prefix>HCAR.frH	<prefix>HCAR.rmH	<prefix>HCAR.stH	<prefix>HCAR.lcH	<prefix>HCAR.rrH								
	Calvert	<prefix>HCCA.arH	<prefix>HCCA.frH	<prefix>HCCA.rmH	<prefix>HCCA.stH	<prefix>HCCA.lcH	<prefix>HCCA.rrH								
	Charles	<prefix>HCCH.arH	<prefix>HCCH.frH	<prefix>HCCH.rmH	<prefix>HCCH.stH	<prefix>HCCH.lcH	<prefix>HCCH.rrH								
	Calvert	<prefix>HCCL.arH	<prefix>HCCL.frH	<prefix>HCCL.rmH	<prefix>HCCL.stH	<prefix>HCCL.lcH	<prefix>HCCL.rrH								
	DC	<prefix>HCDC.arH	<prefix>HCDC.frH	<prefix>HCDC.rmH	<prefix>HCDC.stH	<prefix>HCDC.lcH	<prefix>HCDC.rrH								
	Frederick	<prefix>HCFR.arH	<prefix>HCFR.frH	<prefix>HCFR.rmH	<prefix>HCFR.stH	<prefix>HCFR.lcH	<prefix>HCFR.rrH								
	Fairfax	<prefix>HCFX.arH	<prefix>HCFX.frH	<prefix>HCFX.rmH	<prefix>HCFX.stH	<prefix>HCFX.lcH	<prefix>HCFX.rrH								
	Loudoun	<prefix>HCLD.arH	<prefix>HCLD.frH	<prefix>HCLD.rmH	<prefix>HCLD.stH	<prefix>HCLD.lcH	<prefix>HCLD.rrH								
	Montgomery	<prefix>HCMC.arH	<prefix>HCMC.frH	<prefix>HCMC.rmH	<prefix>HCMC.stH	<prefix>HCMC.lcH	<prefix>HCMC.rrH								
	Pr. George's	<prefix>HCPG.arH	<prefix>HCPG.frH	<prefix>HCPG.rmH	<prefix>HCPG.stH	<prefix>HCPG.lcH	<prefix>HCPG.rrH								
	Pr. William	<prefix>HCPW.arH	<prefix>HCPW.frH	<prefix>HCPW.rmH	<prefix>HCPW.stH	<prefix>HCPW.lcH	<prefix>HCPW.rrH								
	St. Mary's	<prefix>HCSM.arH	<prefix>HCSM.frH	<prefix>HCSM.rmH	<prefix>HCSM.stH	<prefix>HCSM.lcH	<prefix>HCSM.rrH								
	Sprotsylvania	<prefix>HCSP.arH	<prefix>HCSP.frH	<prefix>HCSP.rmH	<prefix>HCSP.stH	<prefix>HCSP.lcH	<prefix>HCSP.rrH								
	Stafford	<prefix>HCST.arH	<prefix>HCST.frH	<prefix>HCST.rmH	<prefix>HCST.stH	<prefix>HCST.lcH	<prefix>HCST.rrH								
	Washington Co	<prefix>HCWE.arH	<prefix>HCWE.frH	<prefix>HCWE.rmH	<prefix>HCWE.stH	<prefix>HCWE.lcH	<prefix>HCWE.rrH								
NOx	Alexandria	<prefix>NXAL.arN	<prefix>NXAL.frN	<prefix>NXAL.rmN	<prefix>NXAL.stN	<prefix>NXAL.lcN	<prefix>NXAL.rrN								
	Arlington	<prefix>NXAR.arN	<prefix>NXAR.frN	<prefix>NXAR.rmN	<prefix>NXAR.stN	<prefix>NXAR.lcN	<prefix>NXAR.rrN								
	Calvert	<prefix>NXCA.arN	<prefix>NXCA.frN	<prefix>NXCA.rmN	<prefix>NXCA.stN	<prefix>NXCA.lcN	<prefix>NXCA.rrN								
	Charles	<prefix>NXCH.arN	<prefix>NXCH.frN	<prefix>NXCH.rmN	<prefix>NXCH.stN	<prefix>NXCH.lcN	<prefix>NXCH.rrN								
	Calvert	<prefix>NXCL.arN	<prefix>NXCL.frN	<prefix>NXCL.rmN	<prefix>NXCL.stN	<prefix>NXCL.lcN	<prefix>NXCL.rrN								
	DC	<prefix>NXDC.arN	<prefix>NXDC.frN	<prefix>NXDC.rmN	<prefix>NXDC.stN	<prefix>NXDC.lcN	<prefix>NXDC.rrN								
	Frederick	<prefix>NXFR.arN	<prefix>NXFR.frN	<prefix>NXFR.rmN	<prefix>NXFR.stN	<prefix>NXFR.lcN	<prefix>NXFR.rrN								
	Fairfax	<prefix>NXFX.arN	<prefix>NXFX.frN	<prefix>NXFX.rmN	<prefix>NXFX.stN	<prefix>NXFX.lcN	<prefix>NXFX.rrN								
	Loudoun	<prefix>NXLD.arN	<prefix>NXLD.frN	<prefix>NXLD.rmN	<prefix>NXLD.stN	<prefix>NXLD.lcN	<prefix>NXLD.rrN								
	Montgomery	<prefix>NXMC.arN	<prefix>NXMC.frN	<prefix>NXMC.rmN	<prefix>NXMC.stN	<prefix>NXMC.lcN	<prefix>NXMC.rrN								
	Pr. George's	<prefix>NXPG.arN	<prefix>NXPG.frN	<prefix>NXPG.rmN	<prefix>NXPG.stN	<prefix>NXPG.lcN	<prefix>NXPG.rrN								
	Pr. William	<prefix>NXPW.arN	<prefix>NXPW.frN	<prefix>NXPW.rmN	<prefix>NXPW.stN	<prefix>NXPW.lcN	<prefix>NXPW.rrN								
	St. Mary's	<prefix>NXSM.arN	<prefix>NXSM.frN	<prefix>NXSM.rmN	<prefix>NXSM.stN	<prefix>NXSM.lcN	<prefix>NXSM.rrN								
	Sprotsylvania	<prefix>NXSP.arN	<prefix>NXSP.frN	<prefix>NXSP.rmN	<prefix>NXSP.stN	<prefix>NXSP.lcN	<prefix>NXSP.rrN								
	Stafford	<prefix>NXST.arN	<prefix>NXST.frN	<prefix>NXST.rmN	<prefix>NXST.stN	<prefix>NXST.lcN	<prefix>NXST.rrN								
	Washington Co	<prefix>NXWE.arN	<prefix>NXWE.frN	<prefix>NXWE.rmN	<prefix>NXWE.stN	<prefix>NXWE.lcN	<prefix>NXWE.rrN								

Pollutant	Jurisdiction	Seasonal Soak Rates
Soak, Diurnal, Resting Loss Rates	Alexandria	<prefix>HCAL.SDR
	Arlington	<prefix>HCAR.SDR
	Calvert	<prefix>HCCA.SDR
	Charles	<prefix>HCCH.SDR
Seasonal Soak, Seasonal Diurnal, Seasonal Rest Loss	Calvert	<prefix>HCCL.SDR
	DC	<prefix>HCDC.SDR
	Frederick	<prefix>HCFR.SDR
	Fairfax	<prefix>HCFX.SDR
	Loudoun	<prefix>HCLD.SDR
	Montgomery	<prefix>HCMC.SDR
	Pr. George's	<prefix>HCPG.SDR
	Pr. William	<prefix>HCPW.SDR
	St. Mary's	<prefix>HCSM.SDR
	Sportsylvania	<prefix>HCSP.SDR
	Stafford	<prefix>HCST.SDR
	Washington Co	<prefix>HCWE.SDR

4.0 Post-Processor Computations

The post-processor computes three classes of mobile emissions: Trip-end emissions, comprised of starting and soaking types, running emissions, and local emissions. The computation procedures are described below, in turn.

4.1 Trip-End Emissions

Starting emissions are developed by applying per-trip emission rates to modeled vehicle trips at the zone level, on an hour-by-hour basis. Starting pollutant rates are associated with VOC, CO, and NO_x emissions, and are expressed in terms of *cold* and *hot transient* types. Cold starts relate to those auto trips with fully cooled engines (i.e., engines that have been turned off for at least one hour prior to the trip starting time). Alternatively, hot transient starts are those auto trips with warm engines (i.e., engines that have been turned off less than one hour prior to the trip start time). An hourly allocation of trip origins is necessary for the starting emission calculation since the proportion of cold and hot starts is dependent upon the time of day. The assumed hourly distribution of AM, PM, and Off-peak vehicle trips is shown on Table 8. The distribution shown was derived from the 1994 Household Travel Survey (HTS). The assumed hourly distribution for cold and hot transient starts is shown on Table 9. This table was also derived from the 1994 HTS.

Soaking emissions are associated with the evaporative VOC/HC emissions that result when the engine is turned off. The soak emissions consist of a single emission rate that is applied to trip destinations. There is no temporal component to the soaking emission computation.

It was stated earlier that emission rates are developed on a county-by-county basis. An averaged emission rate is used in the post-processor, as opposed to a single county-specific rate, because the vehicle starts in any given jurisdiction are realistically made by residents of that jurisdiction as well as by residents of many other jurisdictions. For example, the emission rate used within the District of Columbia is the average of all emission rates weighted by the proportion of daily vehicle trips from each jurisdiction to the District. The general equation for computing starting emissions for a specific TAZ and hour of the day is as follows:

$$\text{StartEm}_{ih} = \text{Starts}_h * \sum_{j=1}^{27} ((\text{CSR}_j * \text{CPCT}_h + \text{HSR}_j * \text{HPCT}_h) * \text{Tprop}_{ij})$$

Where:

StartEm _{ih}	= Zonal starting-up emissions (in grams) at hour h in jurisdiction i
Starts _h	= Zonal vehicle starts at hour h
CSR _j	= Cold Start rate (gm/trip) for jurisdiction j
CPCT _h	= Cold start proportion at hour h
HSR _j	= Hot Start rate (gm/trip) for jurisdiction j
HPCT _h	= Hot start proportion at hour h
Tprop _{ij}	= Proportion of daily trips between jurisdiction i/j

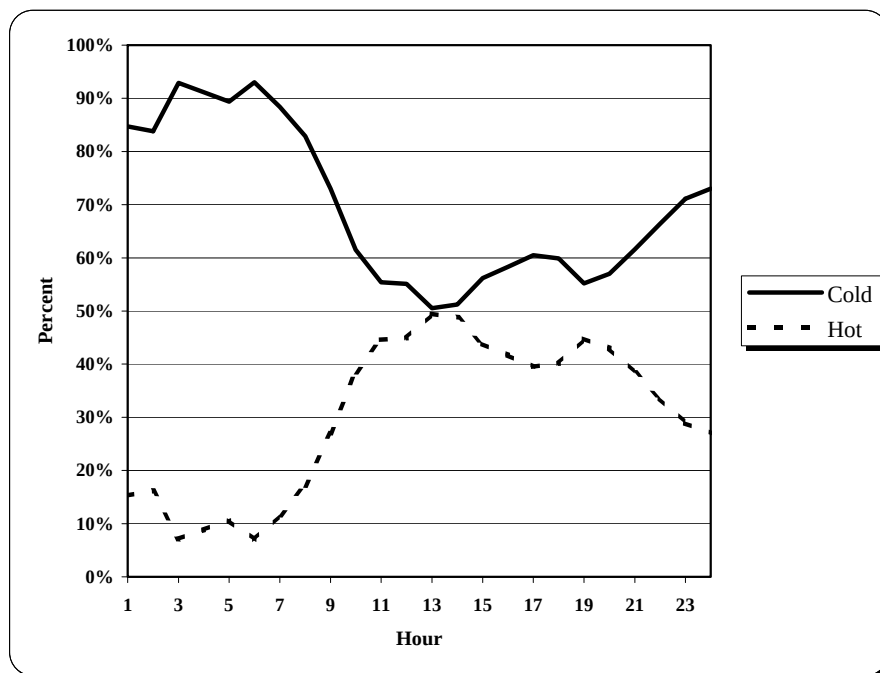
Table 8

**Distribution of AM, PM, and Off-Peak Period Auto Driver Trips
Among
Hourly Periods**

Hour No.		% AM	% PM	Off-Peak
1	12mid - 12:59AM			0.30%
2	1:00AM - 1:59AM			0.40%
3	2:00AM - 2:59AM			0.30%
4	3:00AM - 3:59AM			0.30%
5	4:00AM - 4:59AM			0.50%
6	5:00AM - 5:59AM			2.20%
7	6:00AM - 6:59AM	20.10%		
8	7:00AM - 7:59AM	39.80%		
9	8:00AM - 8:59AM	40.10%		
10	9:00AM - 9:59AM			9.70%
11	10:00AM - 10:59AM			8.20%
12	11:00AM - 11:59AM			9.20%
13	12noon - 12:59PM			10.10%
14	1:00PM - 1:59PM			8.90%
15	2:00PM - 2:59PM			9.00%
16	3:00PM - 3:59PM			11.60%
17	4:00PM - 4:59PM		31.40%	
18	5:00PM - 5:59PM		37.30%	
19	6:00PM - 6:59PM		31.30%	
20	7:00PM - 7:59PM			10.80%
21	8:00PM - 8:59PM			7.70%
22	9:00PM - 9:59PM			5.80%
23	10:00PM - 10:59PM			3.40%
24	11:00PM - 11:59PM			1.60%
Total		100.00%	100.00%	100.00%

Table 9
Distribution of Cold / Hot Transient Vehicle Starts by Hour

Hour No.		% Cold	% Hot	Total
1	12mid - 12:59AM	84.70%	15.30%	100.00%
2	1:00AM - 1:59AM	83.80%	16.20%	100.00%
3	2:00AM - 2:59AM	92.90%	7.10%	100.00%
4	3:00AM - 3:59AM	91.20%	8.80%	100.00%
5	4:00AM - 4:59AM	89.40%	10.60%	100.00%
6	5:00AM - 5:59AM	93.00%	7.00%	100.00%
7	6:00AM - 6:59AM	88.40%	11.60%	100.00%
8	7:00AM - 7:59AM	82.90%	17.10%	100.00%
9	8:00AM - 8:59AM	73.00%	27.00%	100.00%
10	9:00AM - 9:59AM	61.50%	38.50%	100.00%
11	10:00AM - 10:59AM	55.40%	44.60%	100.00%
12	11:00AM - 11:59AM	55.10%	44.90%	100.00%
13	12noon - 12:59PM	50.50%	49.50%	100.00%
14	1:00PM - 1:59PM	51.20%	48.80%	100.00%
15	2:00PM - 2:59PM	56.20%	43.80%	100.00%
16	3:00PM - 3:59PM	58.30%	41.70%	100.00%
17	4:00PM - 4:59PM	60.50%	39.50%	100.00%
18	5:00PM - 5:59PM	59.90%	40.10%	100.00%
19	6:00PM - 6:59PM	55.20%	44.80%	100.00%
20	7:00PM - 7:59PM	57.00%	43.00%	100.00%
21	8:00PM - 8:59PM	61.60%	38.40%	100.00%
22	9:00PM - 9:59PM	66.40%	33.60%	100.00%
23	10:00PM - 10:59PM	71.10%	28.90%	100.00%
24	11:00PM - 11:59PM	73.00%	27.00%	100.00%



Similarly, the equation for computing hot soak emissions is as follows:

$$\text{SoakEm}_{ih} = \text{Stops}_{sh} * \sum_{j=1}^{27} (\text{HSR}_j * \text{Tprop}_{ij})$$

Where:

SoakEm_{ih} = Zonal hot soak emissions (in grams) at hour h in jurisdiction i
 Stops_{sh} = Vehicle stops at hour h
 HSR_j = Hot Soak rate (gm/trip) for jurisdiction j
 Tprop_{ij} = Proportion of daily trips between jurisdiction i and jurisdiction j

The regional total of starting/soaking emissions is, therefore, based on the result of the above equations accumulated over all TAZ's, over all hours of the day. Regional emissions in grams are converted to tons using a conversion factor of 907,184.74 gm/ton.

4.2 Running (Hot Stabilized) Emissions

Running emissions are associated with VOC/HC, CO, NOx, and PM_{2.5} pollutants emitted on the regional highway network. They are computed by applying per-mile emission rates to VMT at the network link level, and are computed on an hour-by-hour basis. The calculation is applied on an hourly basis because the running emission rates are provided as a function of highway speed³, which varies with congestion throughout the day. As with the trip-end emission calculation, the running emission rate for a given link is a weighted average of all jurisdictional rates based on the proportion of daily vehicle trips from each county to the specific county in which the network link is located.

The post-processor now incorporates global link volume adjustment factors used to adjust AAWT volume to the specific season that is appropriate. The current seasonal factors were shown on Table 2, above. Before link volumes are disaggregated among hourly periods, the total daily volume on the link is adjusted with the seasonal factor.

The allocation of link volumes among hourly periods is done in a two-step manner. First, an initial hourly distribution based on observed data for the Washington region is applied to the daily link volume, based on the facility class and *peaking* classification of the link. Facility classifications are defined as freeway, arterial, or local. COG has established three peaking types, AM-oriented, PM-oriented, and Even, based on the following *peaking percentage*⁴:

Peaking Percentage = ((AM Volume* PM scale factor) – PM Volume) / Daily Link Volume

Where:

Peaking Percentage > 7.5% indicates AM oriented class
 Peaking Percentage < - 7.5% indicates PM oriented class
 Peaking Percentage - 7.5% to 7.5% indicates Even oriented class

³ The current PM_{2.5} emission rate, however, does not vary by speed. Nonetheless, the PM_{2.5} computation is still made on an hourly basis.

⁴ See August 27, 2002 Memorandum from Michael Freeman to File, Subject: Development and Recommendations of Hourly Distributions of Daily Traffic Volumes.

The PM scale factor shown is applied to all AM period volumes so that the sum of regional AM link volumes will equal the sum of regional PM volumes. The scaled volume is used *only* for the purpose of computing the peaking index, and is necessary to ensure that a reasonable regional balance of AM and PM oriented links are attained. Default hourly distributions associated with specific facility and peaking classifications are shown on Table 10. The distribution selected for a given link is applied to the *daily seasonal* link volume to arrive at initial hourly volume estimates. Next, the initial hourly estimates are scaled on a gross time period basis so that the hourly link volumes in the AM peak, PM peak, and off-peak periods are consistent with the original (seasonally adjusted) link volumes produced by the traffic assignment process. The hourly link speed is developed from the volume-to-capacity ratio developed at this point based on the speed flow relationship shown on Table 11. The functions shown on Table 11 are based on observed speed and density data collected in the Washington region.

Table 10
Hourly Distribution of Daily Traffic by Orientation and Facility Type

Hour No.		AM			PM			EVEN		
		Freeway	Arterial	Collector	Freeway	Arterial	Collector	Freeway	Arterial	Collector
1	12mid - 12:59AM	0.77	0.49	0.34	1.11	0.76	0.62	1.07	0.67	0.52
2	1:00AM - 1:59AM	0.55	0.30	0.20	0.64	0.41	0.32	0.73	0.40	0.31
3	2:00AM - 2:59AM	0.52	0.25	0.18	0.48	0.28	0.24	0.61	0.30	0.24
4	3:00AM - 3:59AM	0.72	0.37	0.29	0.42	0.24	0.20	0.68	0.33	0.30
5	4:00AM - 4:59AM	1.88	1.09	0.96	0.58	0.38	0.32	1.24	0.72	0.70
6	5:00AM - 5:59AM	6.20	4.05	3.80	1.38	1.08	0.96	3.60	2.27	2.37
7	6:00AM - 6:59AM	8.66	8.75	9.19	3.24	2.70	2.58	4.99	4.58	4.83
8	7:00AM - 7:59AM	11.13	12.38	13.40	4.63	4.62	4.67	6.96	7.65	8.06
9	8:00AM - 8:59AM	8.04	9.82	10.92	4.71	5.15	5.07	5.44	6.90	7.27
10	9:00AM - 9:59AM	6.94	6.39	6.10	3.84	4.38	4.10	5.93	6.11	5.80
11	10:00AM - 10:59AM	5.14	4.71	4.50	3.90	4.19	3.94	5.18	5.15	4.80
12	11:00AM - 11:59AM	4.68	4.53	4.51	4.21	4.67	4.54	5.15	5.40	5.14
13	12noon - 12:59PM	4.65	4.72	4.81	4.61	5.25	5.25	5.34	5.80	5.50
14	1:00PM - 1:59PM	4.58	4.64	4.64	4.83	5.21	5.01	5.45	5.68	5.34
15	2:00PM - 2:59PM	4.66	4.80	4.85	5.95	5.87	5.76	6.10	5.97	5.89
16	3:00PM - 3:59PM	4.70	5.09	5.17	7.32	7.14	7.03	6.80	6.62	6.68
17	4:00PM - 4:59PM	4.56	5.26	5.24	9.95	9.58	10.06	5.94	6.26	6.61
18	5:00PM - 5:59PM	4.76	5.55	5.58	10.87	10.93	11.57	6.63	7.15	7.66
19	6:00PM - 6:59PM	4.32	4.98	4.92	8.55	9.03	9.65	5.35	5.92	6.44
20	7:00PM - 7:59PM	3.66	3.90	3.72	5.61	6.01	6.17	4.99	5.29	5.45
21	8:00PM - 8:59PM	2.95	2.97	2.70	4.25	4.44	4.60	3.89	4.05	4.09
22	9:00PM - 9:59PM	2.64	2.40	2.01	3.68	3.58	3.52	3.44	3.27	3.06
23	10:00PM - 10:59PM	2.06	1.64	1.30	2.80	2.41	2.20	2.70	2.21	1.90
24	11:00PM - 11:59PM	1.23	0.92	0.72	2.45	1.71	1.62	1.81	1.29	1.05
Total		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

In the second step, the initial hourly volume is compared to the hourly link capacity (Level-of-Service ‘E’) and adjusted if necessary. The adjustment procedure (see Table 12) begins with the comparison of AM peak hour traffic and PM peak hour traffic with the available capacity. If the initial peak hour volume exceeds capacity, then the peak hour volume is adjusted to equal the capacity and the portion of volume exceeding capacity is then apportioned in equal parts to the hour before and the hour after the peak hour. In the case of overly congested freeways, the capacity is moderated to reflect the fact that the ‘through-put’ volumes cannot be sustained at LOS ‘E’ service levels when the V/C ratio exceeds 1.0. Table 13 shows the assumed relationship between freeway capacities and congested V/C ratios. Because this adjustment could potentially cause the ‘shoulder’ hour volumes to exceed capacity, added steps are undertaken to compare the resulting volumes in each successive shoulder hour with the capacity. If a given shoulder hour volume exceeds capacity, then the volume is similarly adjusted to equal capacity and the ‘overflow’ volume is added to the volume of the adjacent hourly period. Traffic assignments on rare occasions produce severely overloaded link volumes to the point where a given link volume could exceed the capacity over *all* hours of the day. Because of this possibility, volume adjustments are *not* made for the first, noon, and last hours (hours 1, 13, and 24), even if a given link volume is determined to exceed capacity in those particular hours.

Subsequent to the development of ‘final’ hourly link volumes and restrained speeds, the general equation for computing running emissions is:

$$\text{RunningEm}_{ih} = \text{VMT}_h * \sum_{j=1}^{27} (\text{RRate}_j * \text{Tprop}_{ij})$$

Where:

RunningEm _{ih}	= Running link emissions at hour h in jurisdiction i
VMT _h	= Vehicle Miles Travel (after peak-spreading) at hour h
RRate _j	= Running rate (gm/mi) as a function of highway speed for jurisdiction j
Tprop _{ij}	= Proportion of daily trips between jurisdiction i/j

The regional running emissions are the accumulation of calculated hourly emissions over all network links in the study area. Emissions in grams are converted to tons using a conversion factor of 907,184.74 gm/ton.

Table 11
Speed Delay Functions Used in the MWCOG Mobile Emissions Post-Processor
By
Facility Type and Area Type (1-7)

V/C	Freeway			Major Arterial				Minor arterial				Collector				Expressway		
Atp -->	1-2	3-4	5-7	1-2	3-4	5	6-7	1-2	3-4	5	6-7	1-2	3-4	5	6-7	1-2	3-5	6-7
0.000	55.000	60.000	67.000	25.000	35.000	40.000	45.000	20.000	30.000	35.000	40.000	15.000	20.000	25.000	30.000	45.000	50.000	55.000
0.100	54.783	59.764	66.736	24.774	34.683	39.638	44.593	19.762	29.643	34.583	39.523	14.630	19.506	24.383	29.259	44.649	49.610	54.571
0.200	54.479	59.431	66.365	24.464	34.250	39.143	44.036	19.441	29.161	34.022	38.882	14.171	18.895	23.619	28.342	44.166	49.074	53.981
0.300	54.174	59.099	65.994	24.155	33.817	38.648	43.479	19.120	28.680	33.460	38.240	13.713	18.284	22.855	27.426	43.683	48.537	53.390
0.400	53.645	58.522	65.350	23.646	33.105	37.834	42.563	18.611	27.916	32.569	37.222	13.093	17.457	21.822	26.186	42.878	47.642	52.406
0.500	53.116	57.945	64.705	23.138	32.393	37.020	41.648	18.102	27.152	31.678	36.203	12.473	16.631	20.789	24.947	42.073	46.747	51.422
0.600	51.976	56.701	63.316	22.165	31.031	35.465	39.898	17.193	25.790	30.088	34.387	11.631	15.508	19.385	23.262	40.485	44.984	49.482
0.700	50.835	55.456	61.926	21.193	29.670	33.909	38.147	16.285	24.427	28.499	32.570	10.789	14.385	17.982	21.578	38.898	43.220	47.542
0.800	48.329	52.722	58.873	19.427	27.198	31.083	34.969	14.789	22.183	25.880	29.577	9.762	13.016	16.270	19.524	35.880	39.867	43.853
0.900	42.731	46.616	52.054	16.595	23.233	26.552	29.871	12.669	19.003	22.171	25.338	8.643	11.524	14.405	17.286	30.702	34.113	37.524
1.000	27.500	30.000	33.500	12.500	17.500	20.000	22.500	10.000	15.000	17.500	20.000	7.500	10.000	12.500	15.000	22.500	25.000	27.500
1.100	22.610	24.665	27.543	11.200	15.681	17.921	20.161	9.155	13.733	16.022	18.311	7.141	9.521	11.901	14.282	19.893	22.103	24.313
1.170	19.187	20.931	23.373	10.291	14.407	16.465	18.524	8.564	12.846	14.987	17.129	6.889	9.186	11.482	13.779	18.068	20.075	22.083
1.200	17.719	19.330	21.585	9.901	13.861	15.842	17.822	8.311	12.466	14.544	16.622	6.782	9.042	11.303	13.563	17.286	19.206	21.127
1.300	12.829	13.995	15.628	8.601	12.042	13.762	15.483	7.466	11.200	13.066	14.933	6.423	8.563	10.704	12.845	14.678	16.309	17.940
1.400	12.829	13.995	15.628	8.601	12.042	13.762	15.483	7.466	11.200	13.066	14.933	6.423	8.563	10.704	12.845	14.678	16.309	17.940
1.500	12.829	13.995	15.628	8.601	12.042	13.762	15.483	7.466	11.200	13.066	14.933	6.423	8.563	10.704	12.845	14.678	16.309	17.940
1.600	12.829	13.995	15.628	8.601	12.042	13.762	15.483	7.466	11.200	13.066	14.933	6.423	8.563	10.704	12.845	14.678	16.309	17.940
1.800	12.829	13.995	15.628	8.601	12.042	13.762	15.483	7.466	11.200	13.066	14.933	6.423	8.563	10.704	12.845	14.678	16.309	17.940
2.000	12.829	13.995	15.628	8.601	12.042	13.762	15.483	7.466	11.200	13.066	14.933	6.423	8.563	10.704	12.845	14.678	16.309	17.940
2.250	12.829	13.995	15.628	8.601	12.042	13.762	15.483	7.466	11.200	13.066	14.933	6.423	8.563	10.704	12.845	14.678	16.309	17.940
99.990	12.829	13.995	15.628	8.601	12.042	13.762	15.483	7.466	11.200	13.066	14.933	6.423	8.563	10.704	12.845	14.678	16.309	17.940

Table 12	
Peak Spreading Procedure	
<i>Adjustment Process for Spreading Hourly Volumes When Initial Volumes Exceed Capacity</i>	
Step 1:	The AM peak hour (hour 8) initial volume is compared to the link capacity. If the initial hour 8 volume exceeds capacity, then the hour 8 volume is set to capacity (or a moderated capacity value in the case of freeways) and the excess volume portion is added to the volume in periods occurring before <i>and</i> after the AM peak hour (hours 7 and 9) on a 50/50 basis.
Step 2:	The PM peak hour (hour 18) initial volume is compared to the link capacity. If the initial volume exceeds capacity, then the hour 18 volume is set to capacity (or a moderated capacity value in the case of freeways) and the excess volume portion is added to the volume in periods occurring before <i>and</i> after the PM peak hour (hours 17 and 19) on a 50/50 basis.
Step 3:	The volume occurring during pre-AM peak hours (hours 1 to 7) are sequentially checked against the link capacity as in steps 1 and 2, and adjusted (if necessary) in a backward-moving fashion. If the volume occurring in hour 7 exceeds capacity then the hour 7 volume is set to capacity and the excess volume portion is added to the volume of hour 6 volume, and so on. There is no volume spreading at hour 1, even for rare cases where the resulting hour 1 volume exceeds capacity.
Step 4:	The volume occurring during post-AM peak hours (hours 9 to 13) are sequentially checked against the link capacity as in steps 1 and 2, and adjusted (if necessary) in a forward-moving fashion. If the volume occurring in hour 9 exceeds capacity then the hour 9 volume is set to capacity and the excess volume portion is added to the volume of hour 10 volume, and so on. There is no volume spreading at hour 13 (the midday hour), even for rare cases where the resulting hour 13 volume exceeds capacity.
Step 5:	The volume occurring during pre-PM peak hours (hours 13 to 17) are sequentially checked against the link capacity as in steps 1 and 2, and adjusted (if necessary) in a backward-moving fashion. If the volume occurring in hour 17 exceeds capacity then the hour 17 volume is set to capacity and the excess volume portion is added to the volume of hour 16 volume, and so on. There is no volume spreading at hour 13 (the midday hour), even for rare cases where the resulting hour 13 volume exceeds capacity.
Step 6:	The volume occurring during post-PM peak hours (hours 19 to 24) are sequentially checked against the link capacity as in steps 1 and 2, and adjusted (if necessary) in a forward-moving fashion. If the volume occurring in hour 19 exceeds capacity then the hour 19 volume is set to capacity and the excess volume portion is added to the volume of hour 20 volume, and so on. There is no volume spreading at hour 24, even for rare cases where the resulting hour 24 volume exceeds capacity.

Table 13
Freeway Through-Put Capacities Under Congested Conditions

V/C	Fwy AT1	Fwy AT2	Fwy AT3	Fwy AT4	Fwy AT5	FWY AT6	FWY AT7
1.00	1500	1600	1800	1800	2000	2000	2100
1.20	1433	1528	1719	1719	1911	1911	2006
1.40	1366	1457	1639	1639	1821	1821	1912
1.60	1366	1457	1639	1639	1821	1821	1912
1.80	1366	1457	1639	1639	1821	1821	1912
2.00	1366	1457	1639	1639	1821	1821	1912
2.25	1366	1457	1639	1639	1821	1821	1912
99.99	1366	1457	1639	1639	1821	1821	1912

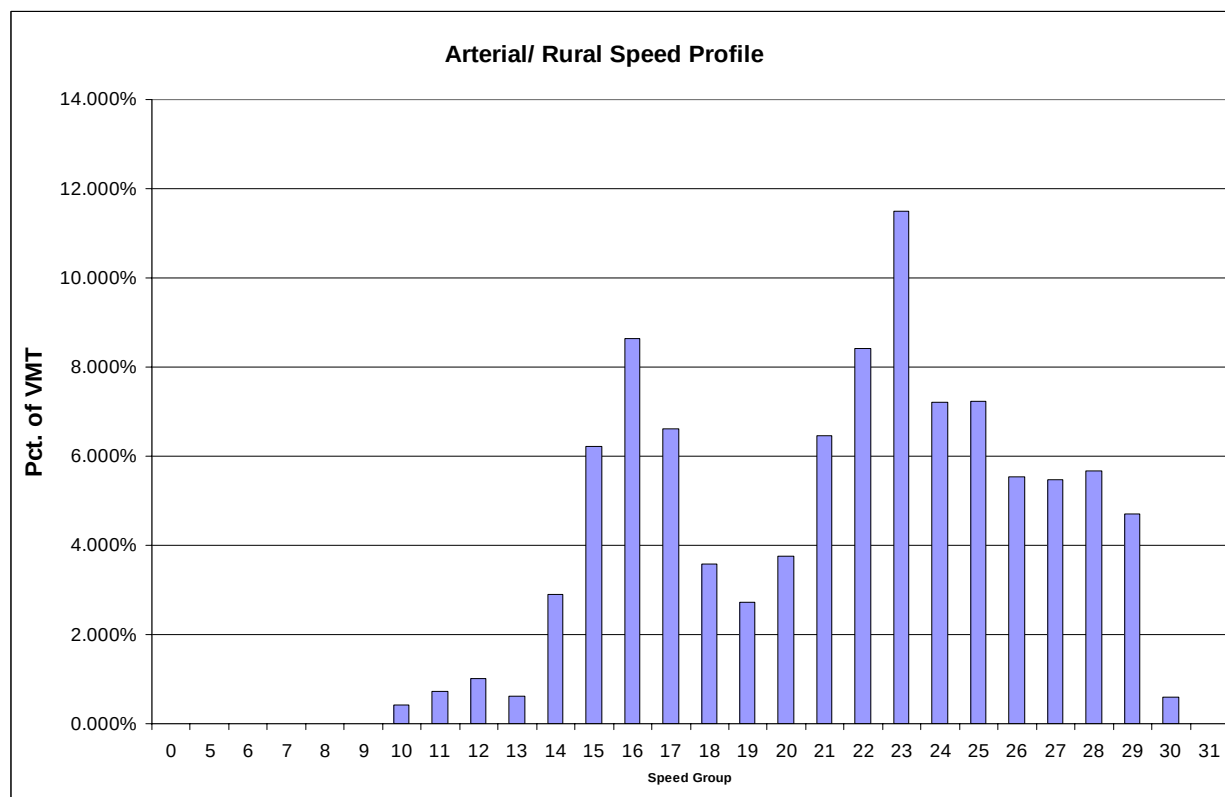
4.3 Local Emissions

Local (or off-network) emissions are those generated on smaller facilities that are not included in the regional network. Local emissions are associated with VOC/HC, CO, NO_x, and PM_{2.5} pollutants and are computed at jurisdiction level by applying per-mile emission rates to the local VMT. However, the local emission calculation requires that local VMT be further allocated among urban and rural categories, as the emission calculation is different. The calculation steps are listed below:

- 1) The small file containing base year jurisdictional modeled network VMT, observed local VMT, and base year urban/rural local VMT percentages is prepared.
- 2) Modeled network VMT for the analysis year is summarized at jurisdiction level and merged with the base year information, above.
- 3) Local urban and rural VMT is estimated for the analysis year. First, local VMT is estimated by applying a growth factor to the base year (2002) local VMT. The growth factor is based on modeled VMT change between the base year and analysis year. Next, the base year urban and rural percentages are applied to the local VMT computed for the analysis year.
- 4) Local PM_{2.5} emissions are computed based on total (urban and rural) VMT.
- 5) Urban/local NO_x, CO, and VOC emissions are computed using the single local/stabilized emission factor produced by Mobile. This factor is based on an assumed speed of 12.9 mph.
- 6) Rural/local NO_x, CO, and VOC emissions are computed by first allocating the rural VMT among speed 'bins' using an assumed average speed profile. The profile reflects a VMT distribution for rural jurisdictions that was summarized from previous modeling files. The profile, shown on Figure 1, was determined to be a reasonable basis for local facilities speeds in rural areas. Secondly, rural arterial rates are applied to the VMT on the basis of speed.

Previous local emissions calculations have been made using the single (12.9 mph-based) local rate. It is believed that the use of arterial rates at higher speed levels will yield a more accurate emission result for rural areas of the region.

Figure 1:



5.0 Post-Processor Program Steps

The post-processor is executed when provided with: 1) travel demand output files, 2) emission rate files by jurisdiction as described above, and 3) a small text file containing jurisdiction level VMT information. The travel demand output files include the final iteration loaded highway network (I6HWY.NET) and three vehicle trip tables corresponding to the AM, PM, and off peak periods (I6AM.VTT, I6PM.VTT, I6OP.VTT). The jurisdictional VMT file (Base_Juris_VMT.txt) is a pre-existing file containing base (2002) year estimates of network-based VMT, local (or off-network) VMT, and the estimated proportion of network VMT that is urban and rural. This information is used to develop future year local VMT that is urban and local. All VMT information corresponds only to jurisdictions within the MSA as defined above.

The post-processor is normally executed using batch files that are called in a command prompt window. A list of subdirectories established to execute post-processor work is shown on Table 14. The batch file used for a single-season post-processor execution (e.g., ozone or wintertime

model runs) is named EMISS.BAT. The batch file used for a three-season post-processor execution is named 3_Season_EMISS.BAT. Single-season and three-season flowcharts are shown on Figures 2 and 3. The batch files contain environmental or global variables useful for executing different scenarios. A list defining those environmental variables is shown in Table 15.

The batch files call five TP+ scripts which are summarized below. The TP+ script names are in parenthesis:

1) Trip Table Formatting (AQTRIPS.S): AM, PM, and off-peak trip tables produced by the travel demand model are read. The program produces zonal trip-ends for each of the three time periods. It also produces a file containing the proportion of daily vehicle trips from/to each of the 27 emission areas. Since the trip proportions are developed with daily trips, the proportion in the *i/j* direction is generally the same as that in the *j/i* direction.

2) Time-of-Day Trip-Ends Program (ZONESPRD.S): The program reads the zonal origins and destinations, described above, and apportions them among discrete hourly periods.

3) Jurisdiction level VMT Formatting Program (Pre_Local.S): The program summarizes modeled VMT at the jurisdiction level and writes a summary file to be used in the LOCAL.S program.

4) Time-of-Day VMT and speeds program (PEAK_SPREAD.S for the single season post-processor or PEAK_SPREAD_Seasonal.S for the three-season post-processor): The program reads the AM, PM, and off-peak network link volumes produced by the travel demand model. It produces hourly volumes, VMT, and restrained speed for each highway link. The hourly VMT and highway speeds are sensitive to seasonal adjustment factors.

5) Running Emissions Program (RUNNING.S for the single season post-processor or RUNNING_Seasonal.S for the three-season post-processor): The program computes hot stabilized emissions on a link-by-link and hour-by-hour basis. It reads 1) the hourly link VMT and highway speed files developed above, 2) MOBILE6-based running emission rates which are provided on the basis of speed, and 3) the county level trip proportions file. VOC, CO, and NO_x emissions are produced from the program (PM_{2.5} emissions are additionally produced from the three-season run).

6) Start/Soak Emissions Program (STRT_SKR.S for the single season post-processor or STRT_SKR_Seasonal.S for the three season post-processor): The program applies emission rates to the trip- ends to compute start-up and soaking emissions on a zone-by-zone and hour-by-hour basis. The program reads: 1) hourly trip-ends, 2) the MOBILE6-generated cold/hot starting rates, and 3) the county-level trip proportions file. Note that trip tables are not affected by seasonal adjustments. VOC, CO, and NO_x emissions are produced from the program.

7) Local Emissions Programs (LOCAL.S and pre-local.s for the single season post-processor or LOCAL_Seasonal.S for the three-season post-processor): The program computes hot stabilized

emissions on a link-by-link and hour-by-hour basis. It reads 1) a file containing forecasted local/urban and local/rural VMT at the jurisdiction level and 2) PM_{2.5} and Arterial NOx stabilized rates specially developed for local roads. Note that the forecasted VMT is produced by a program called pre-local.s which, in turn, is based on 2002 observed data. VOC, CO, and NOx emissions are produced from the program (PM_{2.5} emissions are additionally produced from the three-season run).

8) The post processor includes several TP+ programs which are used to facilitate the creation of technical documentation. The emission calculation scripts (Running.S, Strt_Skr.S, and Local.S) produce text files containing basic summaries. An additional script was added (Report.S) to read different summary files and to combine them into a single overall summary file.

Table 14 Post-Processor Subdirectories

Description of Contents	Subdirectory
Locations of Post processor Executions / Outputs	
2002 Ozone Season VOC, CO, Nx	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2002_ozone
2002 Annual Nx Precursor, PM _{2.5}	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2002_annual
2010 Ozone Season VOC, CO, Nx	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2010_ozone
2010 Winter Season VOC, CO, Nx	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2010_WCO
2010 Annual Nx Precursor, PM _{2.5}	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2010_annual
2020 Ozone Season VOC, CO, Nx	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2020_ozone
2020 Winter Season VOC, CO, Nx	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2020_WCO
2020 Annual Nx Precursor, PM _{2.5}	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2020_annual
2030 Ozone Season VOC, CO, Nx	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2030_ozone
2030 Winter Season VOC, CO, Nx	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2030_WCO
2030 Annual Nx Precursor, PM _{2.5}	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\2030_annual
Emission Rate Inputs	
2002 VOC, CO, Nx rates Ozone Season	I:\CGV2_2_Aug_07_Conformity2008\EMISSIONS\m6RATES\2002\
2002 VOC, CO, Nx, PM rates–3 Seasons	I:\CGV2_1D_50_SEP_07_PM_SIP\m6RATES\2002\
2010 VOC, CO, Nx rates Ozone Season	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2010_ozone
2010 VOC, CO, Nx rates– Winter Season	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2010_WCO
2010 VOC, CO, Nx, PM rates–3 Seasons	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2010_annual
2020 VOC, CO, Nx rates Ozone Season	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2020_ozone
2020 VOC, CO, Nx rates– Winter Season	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2020_WCO
2020 VOC, CO, Nx, PM rates–3 Seasons	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2020_annual
2030 VOC, CO, Nx rates Ozone Season	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2030_ozone
2030 VOC, CO, Nx rates– Winter Season	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2030_WCO
2030 VOC, CO, Nx, PM rates–3 Seasons	I:\CGV2_2_May_09_Conformity2010\EMISSIONS\m6rates\2030_annual
Travel Model Inputs	
2002 Travel Model Files	M:\model_app\CGV2_2_Conformity2010\2002_Conf
2010 Travel Model Files	M:\model_app\CGV2_2_Conformity2010\2010_Conf
2020 Travel Model Files	M:\model_app\CGV2_2_Conformity2010_SA\2020_Final
2030 Travel Model Files	M:\model_app\CGV2_2_Conformity2010_SA\2030_Final

Figure 2

Ozone Season / Wintertime Emissions Data Processing Flowchart:
Job stream executed once with one set of environment variables.

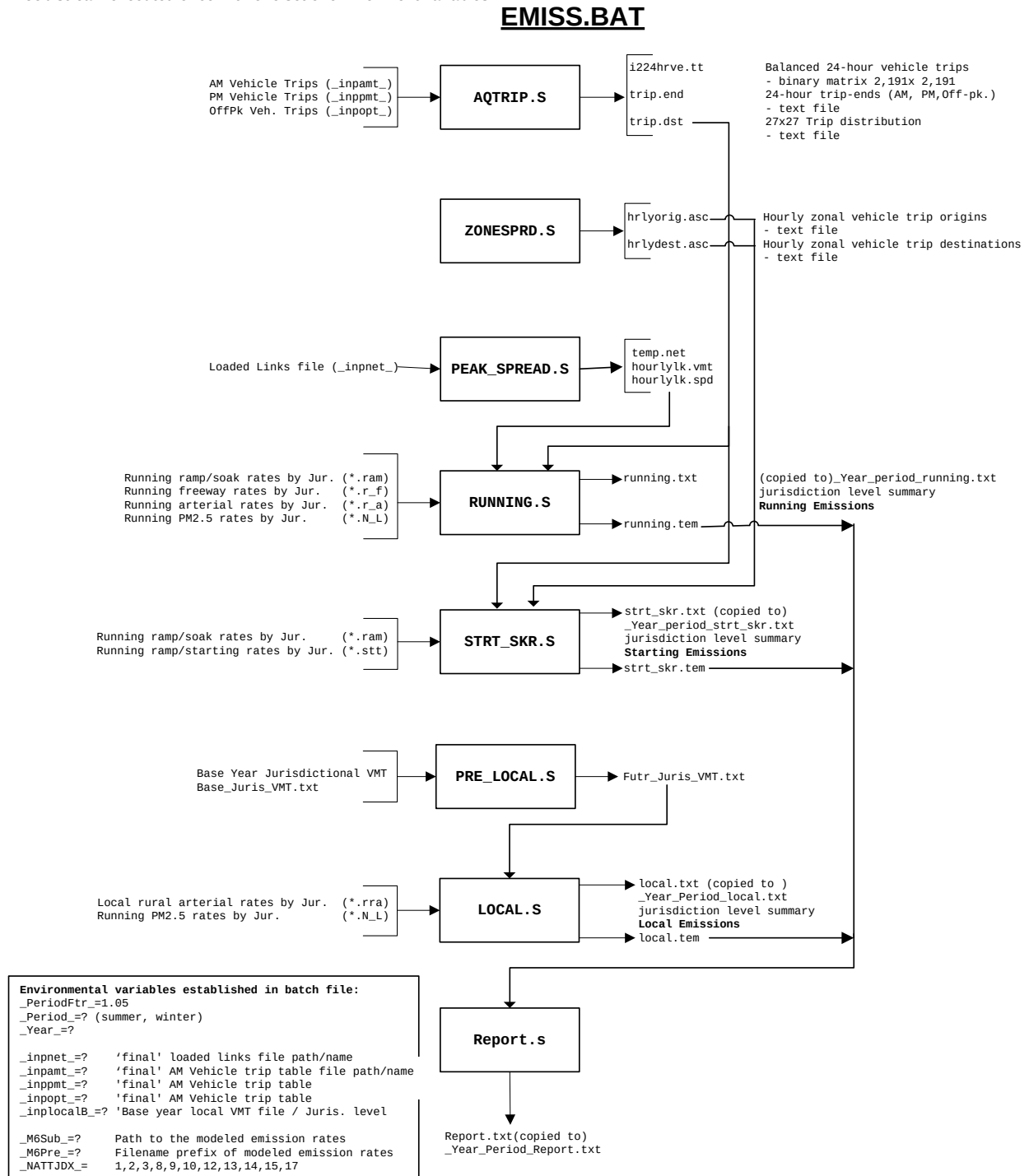


Figure 3

Multiple Season Emission Data Processing Flowchart
Job stream executed 3 times with altered environment variables

3 Season Emiss.BAT

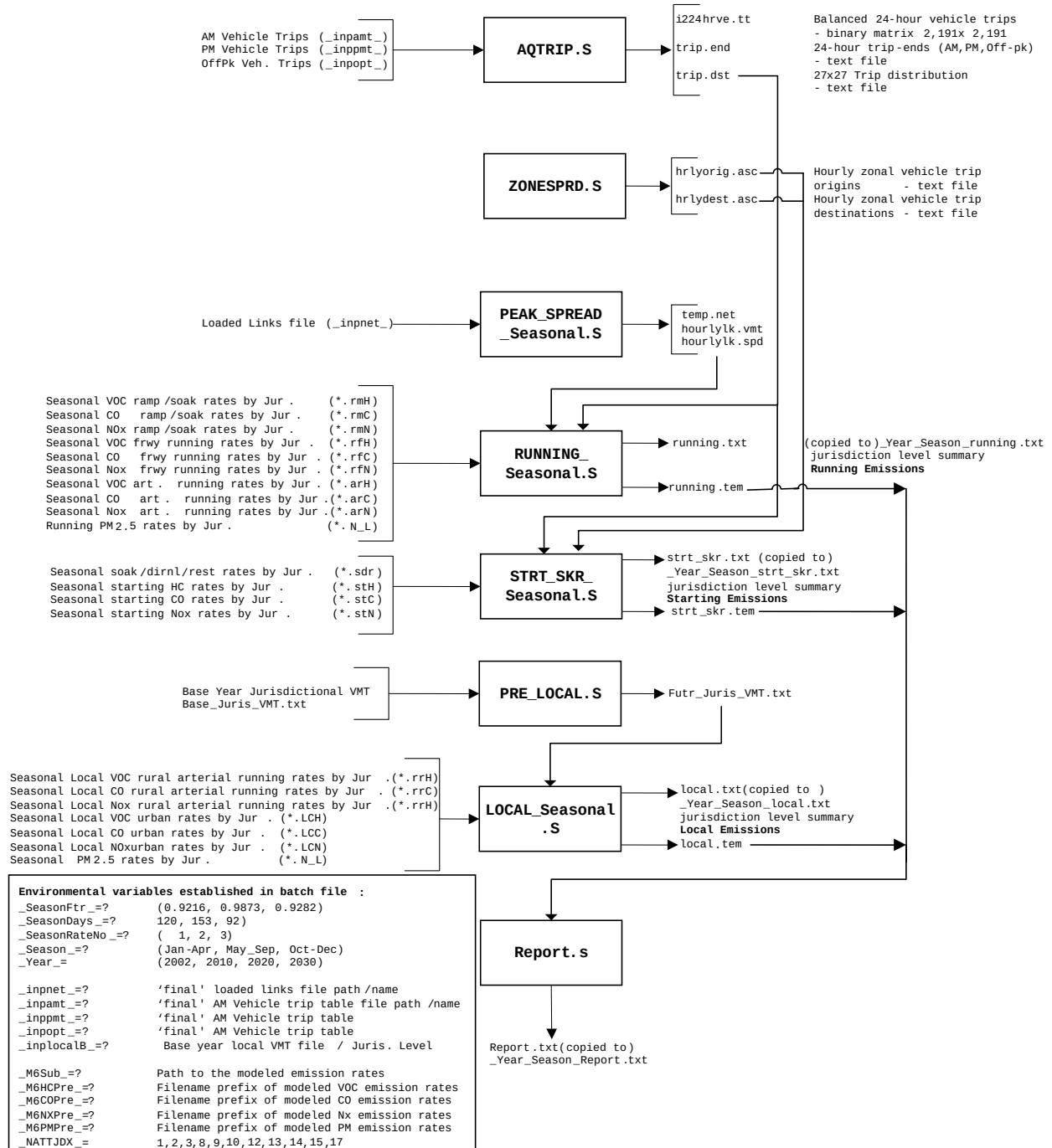


Table 15: List of Environmental/Global variables

Global Variable	Application	Description
NATTJDX	Single Season & Annual	Designate jurisdiction to be included in the final summaries (27 jur numbering system.
INPnet	Single Season & Annual	Location of input subdirectory - Network
INPamt	Single Season & Annual	Location of input subdirectory - AM peak vehicle trips
INPpmt	Single Season & Annual	Location of input subdirectory - PM peak vehicle trips
INPopt	Single Season & Annual	Location of input subdirectory - Off-Peak peak vehicle trips
INPlcalB	Single Season & Annual	Location of Base Jurisdiction VMT text file - provided by user
INPlcalF	Single Season & Annual	Location of future year Jurisdiction VMT text file - computed by pre_local.s program
M6Sub	Single Season & Annual	Location of Mobile 6 Emission rates file subdirectory
M6Pre	Single Season Only	File naming prefix for Mobile 6 Emission rates
M6HCPre	Annual Only	File naming prefix for Mobile 6 Emission rates for Hydrocarbons and Volatile Organic Compounds
M6COPre	Annual Only	File naming prefix for Mobile 6 Emission rates for Carbon Monoxide
M6NXPre	Annual Only	File naming prefix for Mobile 6 Emission rates for Nitrogen Oxides
M6PMPre	Annual Only	File naming prefix for Mobile 6 Emission rates for Particulate Matter size < 2.5 micrometers
Season	Annual Only	Define season of analysis: Jan-Apr, May-Sep, Oct-Dec
SeasonFtr	Annual Only	Seasonal conversion factor applied to AAWT to make it consistent with the seasonal emission rates. (Jan-Apr: 0.9216, May-Sep: 0.9873, Oct-Dec: 0.9282)
SeasonDays	Annual Only	Number of days in each season. (Jan-Apr: 120, May-Sep: 153, Oct-Dec: 92)
SeasonRateNo	Annual Only	An index used in rate lookups. (1=Jan-Apr, 2=May-Sep, 3=Oct-Dec)
PeriodFtr	Single Season Only	Seasonal conversion factor applied to network link VMT to make it consistent with the seasonal emission rates.
Period	Single Season Only	Period label in summary reports. For example Summer (Ozone), Winter or

APPENDIX F

Vehicle-related Emissions Calculations

Memo

To: Air Quality Files

From: Erin Morrow, MWCOG/DTP

Date: June 10, 2009

Re: Vehicle Related Emissions: Diurnal and Resting Loss - 2009 CLRP & FY2010-FY2015 TIP

This memo illustrates the calculation of Diurnal and Resting Loss emissions associated with the 2009 CLRP & FY2010-2015 TIP. A detailed description of work regarding emissions factor updates using Mobile6 is contained in a report by Maureen Mullen of E.H. Pechan & Associates, dated January 27, 2003. Adopting the approach developed by E.H. Pechan & Associates emissions rates were developed using version 6.2 of mobile model.

There were no updates to the procedure used to calculate these emissions. Vehicle ownership forecasts reflect trends through time for each jurisdiction. Forecasts were revised to reflect use of new base year 2008 vehicle registration data, but the slope of the forecast trend line in each jurisdiction was maintained. A detailed description of this process can be found in a June 9, 2009 memo from Daivamani Sivasailam in Appendix D. This approach is illustrated on the attached graph for Prince George's County. Table 1 shows summary of vehicle registration forecasts. Also included is a copy of a spreadsheet displaying the calculation of diurnal and resting loss emissions for year 2010 (Table 2). Diurnal and Resting Loss emissions for other milestone years 2002, 2020, and 2030 are available in the Air Quality Conformity files.

The calculation of these emissions is an off-line process utilizing a spreadsheet format with a very basic calculation:

Number of vehicles by jurisdiction X jurisdiction emissions factor = Emissions

Attachments (3)

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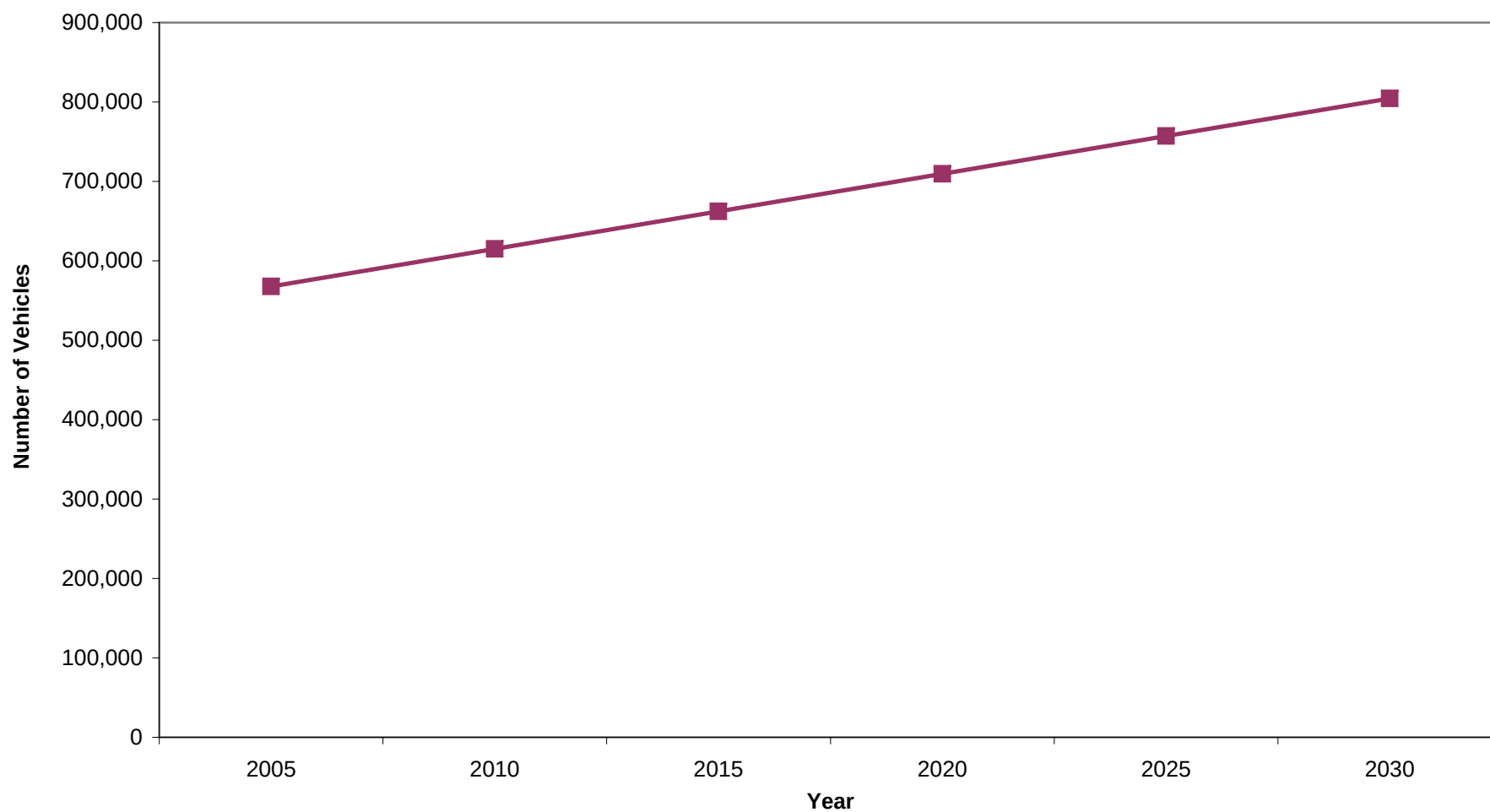
TABLE 1
VEHICLE REGISTRATION FORECASTS BY JURISDICTION (USING OLD GROWTH RATES) & 2008 VIN)
REGISTRATION ADJUSTED TO YEAR 2008

Jurisdiction	2005	2008	2009	2010	2020	2030
District of Columbia	239,919	243,164	244,246	245,327	256,143	266,959
Calvert	76,827	87,093	90,515	93,937	128,155	162,374
Charles	119,186	129,719	133,230	136,741	171,850	206,959
Frederick	198,819	215,863	221,544	227,226	284,039	340,852
Montgomery	661,659	706,176	721,015	735,854	884,245	1,032,636
Prince George's	567,652	596,053	605,520	614,987	709,657	804,327
Alexandria	129,001	130,742	131,322	131,903	137,706	143,509
Arlington	135,070	136,888	137,494	138,100	144,159	150,218
Fairfax	788,113	831,961	846,577	861,193	1,007,352	1,153,511
Loudoun	222,115	243,902	251,164	258,426	331,049	403,671
Prince William	295,047	318,329	326,090	333,851	411,459	489,067
Stafford	104,053	115,721	119,610	123,500	162,392	201,285
Total	3,537,462	3,755,611	3,828,327	3,901,043	4,628,206	5,355,368

The above forecasts are based on 2008 vehicle registration data decoded from raw VIN numbers provided by District of Columbia DMV, Maryland MVA, and Virginia DMV.

2005 registration data were adjusted based on the 2008 numbers.

Vehicle Registration for Prince George's County by Year



MVA 2008 Vehicle Registration data

Table 2
DIURNAL AND RESTING LOSS EMISSIONS
VOC
YEAR 2010

JURISDICTION	TOTAL VEHICLES	FACTORS		EMISSIONS	
		DIURNAL (gm/day/veh)	RESTGL (gm/hr/veh)	DIURNAL (Tons/day)	RESTGL (Tons/day)
District of Columbia	245,327	0.436	2.166	0.116	0.574
Montgomery	735,854	0.395	1.780	0.314	1.415
Prince Georges	614,987	0.486	2.382	0.323	1.582
Frederick	227,226	0.480	2.374	0.118	0.583
Charles	136,741	0.491	2.425	0.073	0.358
Calvert	93,937	0.591	2.496	0.060	0.253
Arlington	138,100	0.381	1.913	0.057	0.285
Alexandria	131,903	0.327	1.602	0.047	0.228
Fairfax	861,193	0.375	1.803	0.349	1.677
Loudoun	258,426	0.345	1.673	0.096	0.467
Prince William	333,851	0.406	2.024	0.146	0.730
Stafford	123,500	0.471	2.435	0.063	0.325
MSA - SUBTOTAL MODELED AREA	3,901,044			1.761	8.479
TOTAL	3,901,044			1.761	8.479

Note: 98% of vehicles, which are gas operated, are used to compute Diurnal and Resting Loss emissions
Based on 2008 vehicle registration

APPENDIX G

Auto Access Emissions Calculations

Memorandum

To: Air Quality Files

From: Eulalie G. Lucas
Transportation Engineer

Date: 6/16/2009

Re: Off- Network Emissions Calculations: Auto Access to transit

Introduction:

This memo documents emission associated with auto access to transit for the following: 8-Hour Ozone season precursors VOC and NO_x, Wintertime CO, direct PM_{2.5}, and precursor NO_x. Travel data associated with these emission calculations reflect network updates as part of the air quality conformity analysis of the 2009 Constrained Long Range Plan (CLRP) and the FY20010-2015 Transportation Improvement Plan (TIP). Procedures used for these calculations are consistent with those used for the Severe State Implementation Plan (SIP) submittal. The following paragraphs describe these procedures and updates.

Auto Access to transit emissions:

VTM Mix percent associated with auto access to transit includes only light duty trucks (LDGT2) and not heavy duty trucks as with network VMT mix percents. The LDGT2 weight category includes Ford Navigators, which are used by some commuters to transit and park and ride lots.

Methodology:

There were no changes to the approach used in previous analysis and the following paragraphs describe the steps applied.

The procedure used in the calculation of emissions associated with auto access to transit is an off-line process. The approach is very simple; it involves the application of an emissions rate to the various components of travel, i.e. start up, running (35 mph for arterials and 45 mph for freeways) and hot soak. For trips originating outside the MSA, only those miles within the MSA are used in the calculation. Forecasting for 'out years' is based on growth rates developed from total internal modeled transit trips. The growth rates are then applied to the MWCOD/DTP 2002 Park and Ride Utilization inventory data.

Separate emissions rates are applied by components of a trip cycle i.e. a start up rate for trip origins, a running rate for the running component and hot soak rate for trip destinations. These three rates represent an average of the twelve composite rates for jurisdictions in the non-attainment area and for seven MOBILE6 vehicle types, HDD fractions were zeroed out of the VMT Mix. This adjustment was made based on the assumption that heavy duty vehicles such as tractor trailers are typically not used by commuters for trips to and from transit locations or to

park and ride lots, however as mentioned in the above paragraph Light Duty Trucks are included in the VMT Mix percents.

As with the other components of the annual emissions inventory for fine particles, seasonal adjustments to travel data associated were applied. Totals for each of the three seasons were then added to provide an annual total for each pollutant.

Results:

This year's analysis included a significant update to one input: vehicle registration. 2008 Vehicle registration replaced the 2005 base year registration. Analysis of the age distributions indicated that the region's fleet contains more older cars than expected and for this reason emission rates increased slightly however there was a drop in travel throughout the region and this drop absorbed the increase in emission rates. Total Auto Access Emissions by year are listed in Exhibits 18 and 19 of the AQC report for annual emissions, Exhibits 17A and 17B for ozone season and Exhibit 20 for Winter CO. The attached exhibits show detailed results for 2010 for pollutants that are part of this analysis. Results for all other analysis years are contained in the air quality conformity files and are available upon request.

Table
2010 VOC AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRPFY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	OUTSIDE MSA (%)	INSIDE MSA	2002		2010 INSIDE Growth Rate 1.28	2010 OUTSIDE Growth Rate 1.28	AVERAGE TRIP LENGTH	2002 VMT	2010 VMT	E M I S S I O N S										HOT SOAK Rate (gm/mile)	TOTAL (tons/day)
			OUTSIDE MSA	Total						Arterial %	FREEWAY %	ARTERIAL VMT	FREEWAY VMT	COLD START Rate (gm/mile)	RUNNING			Total Running			
															Rate (gm/mile)	Rate (gm/mile)	Rate (gm/mile)				
COMMUTER RAIL LOTS														0.98251667	0.17975833	0.15946667		0.585275			
BRUNSWICK 25%	25	305	102	407	390	130	7.5	3052.5	3,895	57	43	2,220	1,675	0.0010	0.0009	0.0006	0.0015	0.0006	0.0030		
PT OF ROCKS 25%	25	204	68	272	260	87	7.5	2040	2,603	57	43	1,484	1,119	0.0007	0.0006	0.0004	0.0010	0.0004	0.0020		
DICKERSON	0	15	0	15	19	0	7.5	112.5	144	57	43	82	62	0.0000	0.0000	0.0000	0.0001	0.0000	0.0001		
BARNESVILLE	0	46	0	46	59	0	7.5	345	440	57	43	251	189	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004		
GERMANTOWN	0	386	0	386	493	0	7.5	2895	3,694	57	43	2,106	1,589	0.0011	0.0008	0.0006	0.0014	0.0006	0.0031		
MET GROVE	0	352	0	352	449	0	7.5	2640	3,369	57	43	1,920	1,449	0.0010	0.0008	0.0005	0.0013	0.0006	0.0028		
WAS GROVE	0	15	0	15	19	0	7.5	112.5	144	57	43	82	62	0.0000	0.0000	0.0000	0.0001	0.0000	0.0001		
GARRETT PARK	0	22	0	22	28	0	7.5	165	211	57	43	120	91	0.0001	0.0000	0.0000	0.0001	0.0000	0.0002		
BOWIE 50%	50	188	188	375	239	239	7.5	2812.5	3,589	57	43	2,046	1,543	0.0008	0.0008	0.0005	0.0014	0.0005	0.0026		
SEABROOK 15%	15	224	40	264	286	51	7.5	1980	2,527	57	43	1,440	1,087	0.0007	0.0006	0.0004	0.0010	0.0004	0.0020		
KENSINGTON	0	45	0	45	57	0	7.5	337.5	431	57	43	245	185	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004		
LAUREL 30%	30	209	90	299	267	114	7.5	2242.5	2,862	57	43	1,631	1,231	0.0007	0.0006	0.0004	0.0011	0.0004	0.0022		
GAITHESBURG	0	280	0	280	357	0	7.5	2100	2,680	57	43	1,528	1,152	0.0008	0.0006	0.0004	0.0010	0.0005	0.0022		
BERWYN HEIGHTS	0	30	0	30	38	0	4.5	135	172	57	43	98	74	0.0001	0.0000	0.0000	0.0001	0.0000	0.0002		
RIVERDALE	0	65	0	65	83	0	4.5	292.5	373	57	43	213	161	0.0002	0.0001	0.0001	0.0001	0.0001	0.0004		
METRO RAIL LOTS								0	0												
ADDISON ROAD 40%	40	791	527	1318	1009	673	7.5	9885	12,615	57	43	7,190	5,424	0.0029	0.0028	0.0019	0.0048	0.0017	0.0094		
ARCHIVES	0	12	0	12	15	0	4.5	54	69	57	43	39	30	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001		
ARLING	0	10	0	10	13	0	4.5	45	57	57	43	33	25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001		
BALLSTON	0	1175	0	1175	1499	0	4.5	5287.5	6,748	57	43	3,846	2,901	0.0032	0.0015	0.0010	0.0025	0.0019	0.0077		
BENN RD	0	520	0	520	664	0	4.5	2340	2,986	57	43	1,702	1,284	0.0014	0.0007	0.0005	0.0011	0.0009	0.0034		
BETH	0	395	0	395	504	0	4.5	1777.5	2,268	57	43	1,293	975	0.0011	0.0005	0.0003	0.0009	0.0007	0.0026		
BRADD RD	0	10	0	10	13	0	4.5	45	57	57	43	33	25	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001		
BROOKLAND	0	27	0	27	34	0	4.5	121.5	155	57	43	88	67	0.0001	0.0000	0.0000	0.0001	0.0000	0.0002		
CHEVERLY	0	557	0	557	711	0	4.5	2506.5	3,199	57	43	1,823	1,375	0.0015	0.0007	0.0005	0.0012	0.0009	0.0037		
CLARENDON	0	554	0	554	707	0	4.5	2493	3,181	57	43	1,813	1,368	0.0015	0.0007	0.0005	0.0012	0.0009	0.0036		
CLEVELAND PK	0	366	0	366	467	0	4.5	1647	2,102	57	43	1,198	904	0.0010	0.0005	0.0003	0.0008	0.0006	0.0024		
COURT HOUSE	0	256	0	256	327	0	4.5	1152	1,470	57	43	838	632	0.0007	0.0003	0.0002	0.0006	0.0004	0.0017		
CRYSTAL CITY	0	347	0	347	443	0	4.5	1561.5	1,993	57	43	1,136	857	0.0010	0.0005	0.0003	0.0008	0.0006	0.0023		
DEANWOOD	0	194	0	194	248	0	4.5	873	1,114	57	43	635	479	0.0005	0.0003	0.0002	0.0004	0.0003	0.0013		
DUN LORING 10%	10	1220	136	1355	1556	173	4.5	6097.5	7,781	57	43	4,435	3,346	0.0036	0.0018	0.0012	0.0029	0.0021	0.0086		
DUPONT CIRCLE	0	165	0	165	211	0	4.5	742.5	948	57	43	540	407	0.0005	0.0002	0.0001	0.0004	0.0003	0.0011		
EASTERN MKT	0	178	0	178	227	0	4.5	801	1,022	57	43	583	440	0.0005	0.0002	0.0002	0.0004	0.0003	0.0012		
EAST FALLS CH	0	442	0	442	564	0	4.5	1989	2,538	57	43	1,447	1,091	0.0012	0.0006	0.0004	0.0010	0.0007	0.0029		
EIS	0	352	0	352	449	0	4.5	1584	2,021	57	43	1,152	869	0.0010	0.0005	0.0003	0.0008	0.0006	0.0023		
FARRAGUT NORTH	0	102	0	102	130	0	4.5	459	586	57	43	334	252	0.0003	0.0001	0.0001	0.0002	0.0002	0.0007		
FARRAGUT WEST	0	221	0	221	282	0	4.5	994.5	1,269	57	43	723	546	0.0006	0.0003	0.0002	0.0005	0.0004	0.0015		
FEDERAL CENTER	0	75	0	75	96	0	4.5	337.5	431	57	43	245	185	0.0002	0.0001	0.0001	0.0002	0.0001	0.0005		
FEDERAL TRI	0	54	0	54	69	0	4.5	243	310	57	43	177	133	0.0001	0.0001	0.0000	0.0001	0.0001	0.0004		
FOGGY	0	102	0	102	130	0	4.5	459	586	57	43	334	252	0.0003	0.0001	0.0001	0.0002	0.0002	0.0007		
FORT TROTTER	0	445	0	445	568	0	4.5	2002.5	2,555	57	43	1,457	1,099	0.0012	0.0006	0.0004	0.0010	0.0007	0.0029		
FRH HEIGHTS	0	679	0	679	867	0	4.5	3055.5	3,899	57	43	2,223	1,677	0.0019	0.0009	0.0006	0.0015	0.0011	0.0045		
GALLERY PLACE	0	124	0	124	158	0	4.5	558	712	57	43	406	306	0.0003	0.0002	0.0001	0.0003	0.0002	0.0008		
GROSVENOR	0	716	0	716	914	0	4.5	3222	4,112	57	43	2,344	1,768	0.0020	0.0009	0.0006	0.0016	0.0012	0.0047		
HUNT NORTH 40%	40	1873	1249	3122	2390	1594	7.5	23415	29,881	57	43	17,032	12,849	0.0069	0.0067	0.0045	0.0113	0.0041	0.0223		
JUD SQUARE	0	110	0	110	140	0	4.5	495	632	57	43	360	272	0.0003	0.0001	0.0001	0.0002	0.0002	0.0007		
KING ST	0	30	0	30	38	0	4.5	135	172	57	43	98	74	0.0001	0.0000	0.0000	0.0001	0.0000	0.0002		
								0	0												
								0	0												
LANDOVER 25%	25	1410	470	1880	1799	600	7.5	14100	17,994	57	43	10,256	7,737	0.0045	0.0041	0.0027	0.0068	0.0027	0.0140		
L'ENFANT PLAZA	0	296	0	296	378	0	4.5	1332	1,700	57	43	969	731	0.0008	0.0004	0.0003	0.0006	0.0005	0.0019		
MCPHERSON SO	0	52	0	52	66	0	4.5	234	299	57	43	170	128	0.0001	0.0001	0.0000	0.0001	0.0001	0.0003		
MEDICAL CENTER	0	14	0	14	18	0	4.5	63	80	57	43	46	35	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001		
METRO CENTER	0	177	0	177	226	0	4.5	796.5	1,016	57	43	579	437	0.0005	0.0002	0.0002	0.0004	0.0003	0.0012		
MINNES	0	353	0	353	450	0	4.5	1588.5	2,027	57	43	1,155	872	0.0010	0.0005	0.0003	0.0008	0.0006	0.0023		
NAT AIR	0	87	0	87	111	0	4.5	391.5	500	57	43	285	215	0.0002	0.0001	0.0001	0.0002	0.0001	0.0006		
NEW CARROL 50%	50	1049	1049	2097	1338	1338	7.5	15727.5	20,071	57	43	11,440	8,630	0.0043	0.0045	0.0030	0.0076	0.0026	0.0145		
PENTAGON	0	561	0	561	716	0	4.5	2524.5	3,222	57	43	1,836	1,385	0.0016	0.0007	0.0005	0.0012	0.0009	0.0037		

Table
2010 VOC AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRPFY2010-2015 TIP AIR QUALITY CONFORMITY

E M I S S I O N S																	HOT SOAK	TOTAL (tons/day)	
LOCATION	OUTSIDE MSA (%)	INSIDE MSA	2002		2010 INSIDE Growth Rate	2010 OUTSIDE Growth Rate	AVERAGE TRIP LENGTH	2002 VMT	2010 VMT	ARTERIAL %	FREEWAY %	ARTERIAL VMT	FREEWAY VMT	COLD START Rate (gm/mile)	RUNNING				
			Arterial	Freeway											Total				
																Rate (gm/mile)			Rate (gm/mile)
					1.28	1.28								0.98251667	0.17975833	0.15946667	0.585275		
COMMUTER RAIL LOTS																			
PENTAGON CITY	0	381	0	381	486	0	4.5	1714.5	2,188	57	43	1,247	941	0.0011	0.0005	0.0003	0.0008	0.0006	0.0025
POTOMAC AVE	0	533	0	533	680	0	4.5	2398.5	3,061	57	43	1,745	1,316	0.0015	0.0007	0.0005	0.0012	0.0009	0.0035
ROCKVILLE	0	667	0	667	851	0	4.5	3001.5	3,830	57	43	2,183	1,647	0.0018	0.0009	0.0006	0.0014	0.0011	0.0044
ROSSLYN	0	356	0	356	454	0	4.5	1602	2,044	57	43	1,165	879	0.0010	0.0005	0.0003	0.0008	0.0006	0.0023
SHADY GROVE 10%	10	3903	434	4337	4981	553	7.5	32527.5	41,510	57	43	23,661	17,849	0.0114	0.0094	0.0063	0.0157	0.0068	0.0338
SILVER SPRING	0	44	0	44	56	0	4.5	198	253	57	43	144	109	0.0001	0.0001	0.0000	0.0001	0.0001	0.0003
SMITH MALL	0	120	0	120	153	0	4.5	540	689	57	43	393	296	0.0003	0.0002	0.0001	0.0003	0.0002	0.0008
STADIUM ARM	0	976	0	976	1246	0	4.5	4392	5,605	57	43	3,195	2,410	0.0027	0.0013	0.0008	0.0021	0.0016	0.0064
TAKOMA PK	0	146	0	146	186	0	4.5	657	838	57	43	478	361	0.0004	0.0002	0.0001	0.0003	0.0002	0.0010
TENLEYTON	0	17	0	17	22	0	4.5	76.5	98	57	43	56	42	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001
TWINBROOK	0	1136	0	1136	1450	0	4.5	5112	6,524	57	43	3,718	2,805	0.0031	0.0015	0.0010	0.0025	0.0019	0.0075
UNION STAT	0	378	0	378	482	0	4.5	1701	2,171	57	43	1,237	933	0.0010	0.0005	0.0003	0.0008	0.0006	0.0025
VAN NESS	0	343	0	343	438	0	4.5	1543.5	1,970	57	43	1,123	847	0.0009	0.0004	0.0003	0.0007	0.0006	0.0023
VIENNA 25%	25	2798	933	3731	3571	1190	7.5	27982.5	35,710	57	43	20,355	15,355	0.0090	0.0081	0.0054	0.0135	0.0054	0.0279
VA SQUARE	0	642	0	642	819	0	4.5	2889	3,687	57	43	2,101	1,585	0.0018	0.0008	0.0006	0.0014	0.0011	0.0042
WEST FALLS CHURCH	0	2183	0	2183	2786	0	4.5	9823.5	12,536	57	43	7,146	5,391	0.0060	0.0028	0.0019	0.0047	0.0036	0.0144
WHITE FLINT	0	1633	0	1633	2084	0	4.5	7348.5	9,378	57	43	5,345	4,032	0.0045	0.0021	0.0014	0.0035	0.0027	0.0107
WOODLEY	0	68	0	68	87	0	4.5	306	391	57	43	223	168	0.0002	0.0001	0.0001	0.0001	0.0001	0.0004
RHODE ISLAND 30%	30	266	114	380	339	145	7.5	2850	3,637	57	43	2,073	1,564	0.0009	0.0008	0.0005	0.0014	0.0005	0.0028
BUS & CAR POOL LOTS								0	0										
CARTER BARRON	0	798	0	798	1018	0	4.5	3591	4,583	57	43	2,612	1,971	0.0022	0.0010	0.0007	0.0017	0.0013	0.0052
PG PLAZA	0	47	0	47	60	0	4.5	211.5	270	57	43	154	116	0.0001	0.0001	0.0000	0.0001	0.0001	0.0003
PENN MAR SHOPP.	0	100	0	100	128	0	4.5	450	574	57	43	327	247	0.0003	0.0001	0.0001	0.0002	0.0002	0.0007
CAP PLAZA	0	100	0	100	128	0	4.5	450	574	57	43	327	247	0.0003	0.0001	0.0001	0.0002	0.0002	0.0007
EASTOVER	0	100	0	100	128	0	4.5	450	574	57	43	327	247	0.0003	0.0001	0.0001	0.0002	0.0002	0.0007
FOUR MILE RUN	0	28	0	28	36	0	4.5	126	161	57	43	92	69	0.0001	0.0000	0.0000	0.0001	0.0000	0.0002
SPRINGFIELD MALL	0	580	0	580	740	0	4.5	2610	3,331	57	43	1,899	1,432	0.0016	0.0008	0.0005	0.0013	0.0010	0.0038
SPRINGFIELD METH CH	0	48	0	48	61	0	4.5	216	276	57	43	157	119	0.0001	0.0001	0.0000	0.0001	0.0001	0.0003
FRED ARMORY	0	33	0	33	42	0	7.5	247.5	316	57	43	180	136	0.0001	0.0001	0.0000	0.0001	0.0001	0.0003
MYERSVILLE	0	65	0	65	83	0	7.5	487.5	622	57	43	355	268	0.0002	0.0001	0.0001	0.0002	0.0001	0.0005
ROSEMONT	0	45	0	45	57	0	7.5	337.5	431	57	43	245	185	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004
URBANA	0	193	0	193	246	0	7.5	1447.5	1,847	57	43	1,053	794	0.0005	0.0004	0.0003	0.0007	0.0003	0.0015
JEFFERSON	0	40	0	40	51	0	7.5	300	383	57	43	218	165	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003
NORBECK RD	0	248	0	248	316	0	7.5	1860	2,374	57	43	1,353	1,021	0.0007	0.0005	0.0004	0.0009	0.0004	0.0020
MONTROSE RD	0	650	0	650	829	0	7.5	4875	6,221	57	43	3,546	2,675	0.0018	0.0014	0.0009	0.0023	0.0011	0.0052
BRIGG CHENNY 50%	50	215	215	430	274	274	7.5	3225	4,116	57	43	2,346	1,770	0.0009	0.0009	0.0006	0.0016	0.0005	0.0030
COMUS ROAD	0	30	0	30	38	0	7.5	225	287	57	43	164	123	0.0001	0.0001	0.0000	0.0001	0.0000	0.0002
LAKEFOREST MALL	0	300	0	300	383	0	7.5	2250	2,871	57	43	1,637	1,235	0.0008	0.0006	0.0004	0.0011	0.0005	0.0024
BURTONSVILLE	0	500	0	500	638	0	7.5	3750	4,786	57	43	2,728	2,058	0.0014	0.0011	0.0007	0.0018	0.0008	0.0040
FORCEY MEM.	0	200	0	200	255	0	7.5	1500	1,914	57	43	1,091	823	0.0006	0.0004	0.0003	0.0007	0.0003	0.0016
TECH ROAD	0	155	0	155	198	0	7.5	1162.5	1,484	57	43	846	638	0.0004	0.0003	0.0002	0.0006	0.0003	0.0012
BELTWAY	0	265	0	265	338	0	7.5	1987.5	2,536	57	43	1,446	1,091	0.0007	0.0006	0.0004	0.0010	0.0004	0.0021
LAUREL VAN DUSEN	0	62	0	62	79	0	7.5	465	593	57	43	338	255	0.0002	0.0001	0.0001	0.0002	0.0001	0.0005
ACCOKEEK	0	450	0	450	574	0	7.5	3375	4,307	57	43	2,455	1,852	0.0012	0.0010	0.0007	0.0016	0.0007	0.0036
ABC DRIVE IN	0	100	0	100	128	0	7.5	750	957	57	43	546	412	0.0003	0.0002	0.0001	0.0004	0.0002	0.0008
BOWIE 20%	20	526	131	657	671	168	7.5	4927.5	6,288	57	43	3,584	2,704	0.0016	0.0014	0.0010	0.0024	0.0010	0.0050
CLINTON 50%	50	212	212	424	271	271	7.5	3180	4,058	57	43	2,313	1,745	0.0009	0.0009	0.0006	0.0015	0.0005	0.0029
OXON HILL 20%	20	519	130	649	663	166	7.5	4867.5	6,212	57	43	3,541	2,671	0.0016	0.0014	0.0009	0.0023	0.0010	0.0049
EQUESTRIAN CENTER 5	50	150	150	300	191	191	7.5	2250	2,871	57	43	1,637	1,235	0.0006	0.0006	0.0004	0.0011	0.0004	0.0021
BOWIE MARKET PLACE	0	50	0	50	64	0	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004
ET WASHINGTON	0	412	0	412	526	0	7.5	3090	3,943	57	43	2,248	1,696	0.0011	0.0009	0.0006	0.0015	0.0007	0.0033
MONTPELIER REC PARK	0	70	0	70	89	0	7.5	525	670	57	43	382	288	0.0002	0.0002	0.0001	0.0003	0.0001	0.0006
RESTON	0	1547	0	1547	1974	0	7.5	11602.5	14,806	57	43	8,440	6,367	0.0043	0.0033	0.0022	0.0056	0.0025	0.0124
GREENBRIAR	0	55	0	55	70	0	7.5	412.5	526	57	43	300	226	0.0002	0.0001	0.0001	0.0002	0.0001	0.0004
FAIR OAKS	0	150	0	150	191	0	7.5	1125	1,436	57	43	818	617	0.0004	0.0003	0.0002	0.0005	0.0002	0.0012
ROLLING VALLEY	0	628	0	628	801	0	7.5												

Table
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AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	OUTSIDE MSA (%)	INSIDE MSA	2002 OUTSIDE MSA	Total	2010 INSIDE Growth Rate	2010 OUTSIDE Growth Rate	AVERAGE TRIP LENGTH	2002 VMT	2010 VMT	E M I S S I O N S										HOT SOAK Rate (gm/mile)	TOTAL (tons/day)												
										ARTERIAL %	FREEWAY %	ARTERIAL VMT	FREEWAY VMT	COLD START Rate (gm/mile)	RUNNING																		
															Arterial Rate (gm/mile)	Freeway Rate (gm/mile)	Total Running																
															0.98251667	0.17975833	0.15946667			0.585275													
COMMUTER RAIL LOTS																																	
LAKE RIDGE															0	555	0	555	708	0	7.5	4162.5	5,312	57	43	3,028	2,284	0.0015	0.0012	0.0008	0.0020	0.0009	0.0045
MINNIEVILLE RD 40%															40	336	224	560	429	286	7.5	4200	5,360	57	43	3,055	2,305	0.0012	0.0012	0.0008	0.0020	0.0007	0.0040
GORDON BLVD															0	156	0	156	199	0	7.5	1170	1,493	57	43	851	642	0.0004	0.0003	0.0002	0.0006	0.0003	0.0013
HILLENDALE															0	248	0	248	316	0	7.5	1860	2,374	57	43	1,353	1,021	0.0007	0.0005	0.0004	0.0009	0.0004	0.0020
POTOMAC MILLS															0	946	0	946	1207	0	7.5	7095	9,054	57	43	5,161	3,893	0.0026	0.0020	0.0014	0.0034	0.0016	0.0076
																						0	0										
																						0	0										
PARK-AND-RIDE LOTS - MARYLAND																						0	0										
CALVERT COUNTY																						0	0										
Dunkirk															25	32	11	42	40	13	7.5	315	402	57	43	229	173	0.0001	0.0001	0.0001	0.0002	0.0001	0.0003
Huntingtown															25	26	9	35	33	11	7.5	262.5	335	57	43	191	144	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003
Lord Calvert Bowling Alley															25	83	28	110	105	35	7.5	825	1,053	57	43	600	453	0.0003	0.0002	0.0002	0.0004	0.0002	0.0008
Lusby															25	23	8	30	29	10	7.5	225	287	57	43	164	123	0.0001	0.0001	0.0000	0.0001	0.0000	0.0002
North Beach VFD															25	53	18	70	67	22	7.5	525	670	57	43	382	288	0.0002	0.0002	0.0001	0.0003	0.0001	0.0005
Prince Frederick															25	53	18	70	67	22	7.5	525	670	57	43	382	288	0.0002	0.0002	0.0001	0.0003	0.0001	0.0005
St. Leonard															25	38	13	50	48	16	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004
Sunderland															25	80	27	106	101	34	7.5	795	1,015	57	43	578	436	0.0003	0.0002	0.0002	0.0004	0.0002	0.0008
PARK-AND-RIDE LOTS - MARYLAND																						0	0										
CHARLES COUNTY																						0	0										
301 Park & Ride															25	287	96	383	367	122	7.5	2872.5	3,666	57	43	2,089	1,576	0.0009	0.0008	0.0006	0.0014	0.0006	0.0029
Charles County Governmen															25	26	9	35	33	11	7.5	262.5	335	57	43	191	144	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003
Food Lion Shopping Center															25	38	13	50	48	16	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004
La Plata Armory															25	15	5	20	19	6	7.5	150	191	57	43	109	82	0.0000	0.0000	0.0000	0.0001	0.0000	0.0001
Laurel Springs Regional Pa															25	38	13	50	48	16	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004
Life Wesleyan Church															25	38	13	50	48	16	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004
Mattawoman-Beantown Rd															25	435	145	580	555	185	7.5	4350	5,551	57	43	3,164	2,387	0.0014	0.0013	0.0008	0.0021	0.0008	0.0043
Smallwood Village															25	75	25	100	96	32	7.5	750	957	57	43	546	412	0.0002	0.0002	0.0001	0.0004	0.0001	0.0007
St. Charles Towne															25	263	88	350	335	112	7.5	2625	3,350	57	43	1,909	1,440	0.0008	0.0008	0.0005	0.0013	0.0005	0.0026
PARK-AND-RIDE LOTS - M															25	0	0	0	0	0	7.5	0	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FREDERICK COUNTY															25	0	0	0	0	0	7.5	0	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Frederick (north)															25	123	41	164	157	52	7.5	1230	1,570	57	43	895	675	0.0004	0.0004	0.0002	0.0006	0.0002	0.0012
Frederick (south)															25	173	58	230	220	73	7.5	1725	2,201	57	43	1,255	947	0.0006	0.0005	0.0003	0.0008	0.0003	0.0017
Monacacy Marcs															25	600	200	800	766	255	7.5	6000	7,657	57	43	4,364	3,292	0.0019	0.0017	0.0012	0.0029	0.0012	0.0060
PARK-AND-RIDE LOTS - MARYLAND																						0	0										
MONTGOMERY COUNTY																						0	0										
Colesville															0	190	0	190	242	0	7.5	1425	1,819	57	43	1,037	782	0.0005	0.0004	0.0003	0.0007	0.0003	0.0015
Damascus															50	0	0	0	0	0	7.5	0	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Gaithersburg															50	259	259	517	330	330	7.5	3877.5	4,948	57	43	2,821	2,128	0.0011	0.0011	0.0007	0.0019	0.0006	0.0036
Gaithersburg															50	175	175	350	223	223	7.5	2625	3,350	57	43	1,909	1,440	0.0007	0.0008	0.0005	0.0013	0.0004	0.0024
Germanatown Town															50	0	0	0	0	0	7.5	0	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Greencastle															50	75	75	150	96	96	7.5	1125	1,436	57	43	818	617	0.0003	0.0003	0.0002	0.0005	0.0002	0.0010
Milestone Shopping															50	88	88	175	112	112	7.5	1312.5	1,675	57	43	955	720	0.0004	0.0004	0.0003	0.0006	0.0002	0.0012
PARK-AND-RIDE LOTS - MAYLAND																						0	0										
PRINCE GEORGE'S COUNTY																						0	0										
Hampton Mall															0	100	0	100	128	0	4.5	450	574	57	43	327	247	0.0003	0.0001	0.0001	0.0002	0.0002	0.0007
Laurel (south)															25	513	171	684	655	218	7.5	5130	6,547	57	43	3,732	2,815	0.0017	0.0015	0.0010	0.0025	0.0010	0.0051
PARK-AND-RIDE LOTS - VIRGINIA																						0	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ARLINGTON COUNTY																						0	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Ballston Public Parking Gar															25	375	125	500	479	160	7.5	3750	4,786	57	43	2,728	2,058	0.0012	0.0011	0.0007	0.0018	0.0007	0.0037
Washington-Lee															50	178	178	356	227	227	7.5	2670	3,407	57	43	1,942	1,465	0.0007	0.0008	0.0005	0.0013	0.0004	0.0025
PARK-AND-RIDE LOTS - VIRGINIA																						0	0										
FAIRFAX COUNTY																						0	0										
American Legion															50	50	50	100	64	64	7.5	750	957	57	43	546	412	0.0002	0.0002	0.0001	0.0004	0.0001	0.0007
Canterbury Woods Pk															50	17	17	34	22	22	7.5	255	325	57	43	185	140	0.0001	0.0001	0.0000	0.0001	0.0000	0.0002
Centreville															50	185	185	370	236	236	7.5	2775	3,541	57	43	2,019	1,523	0.0008	0.0008	0.0005	0.0013	0.0005	0.0026
Centreville United Methodis															50	74	74	147	94	94	7.5	1102.5	1,407	57	43	802	605	0.0003	0.0003	0.0002	0.0005	0.0002	0.0010
Fairfax County Government															50	85	85	170	108	108	7.5	1275	1,627	57	43	927	700	0.0004	0.0004	0.0002	0.0006	0.0002	0.0012
Greenbriar Park															50	28	28	55	35	35	7.5	412.5	526	57	43	300	226	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004
Herndon-Monroe															50	873	873	1,745	1,113	1,113	7.5	13087.5	16,702	57	43	9,520	7,182	0.0036	0.0038	0.0025	0.0063	0.0022	0.0121
Michael's															50	100	100	200	128	128	7.5	1500	1,914	57	43	1,091	823	0.0004	0.0004	0.0003	0.0007	0.0002	0.0014
Parkwood Baptist															50	9	9	18	11	11	7.5	135	172	57	43	98	74	0.0000	0.0000	0.0000	0.0001	0.0000	0.0001
South Run District Pk															50	170	170	340	217	217	7.5	2550	3,254	57	43	1,855	1,399	0.0007	0.0007	0.0005	0.0012	0.0004	0.0024

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E M I S S I O N S																	HOT SOAK	TOTAL (tons/day)		
LOCATION	OUTSIDE MSA (%)	INSIDE MSA	2002		2010 INSIDE Growth Rate	2010 OUTSIDE Growth Rate	AVERAGE TRIP LENGTH	2002 VMT	2010 VMT	ARTERIAL %	FREEWAY %	ARTERIAL VMT	FREEWAY VMT	COLD START Rate (gm/mile)	RUNNING					
			Total	Rate (gm/mile)											Rate (gm/mile)	Rate (gm/mile)			Rate (gm/mile)	
																				Arterial
																	Rate (gm/mile)	Rate (gm/mile)	Rate (gm/mile)	Rate (gm/mile)
																	0.98251667	0.17975833	0.15946667	0.585275
COMMUTER RAIL LOTS																				
St Paul Chung Catholic Chu	50	50	50	100	64	64	7.5	750	957	57	43	546	412	0.0002	0.0002	0.0001	0.0004	0.0001	0.0007	
Stringfellow Rd	50	181	181	361	230	230	7.5	2707.5	3,455	57	43	1,969	1,486	0.0007	0.0008	0.0005	0.0013	0.0004	0.0025	
Sully Station	50	70	70	140	89	89	7.5	1050	1,340	57	43	764	576	0.0003	0.0003	0.0002	0.0005	0.0002	0.0010	
Sydenstricker Rd	50	84	84	167	107	107	7.5	1252.5	1,598	57	43	911	687	0.0003	0.0004	0.0002	0.0006	0.0002	0.0012	
Wakefield Chapel Pk	50	25	25	50	32	32	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0003	
PARK-AND-RIDE LOTS - VIRGINIA																				
LOUDOUN COUNTY																				
Ashburn Farm	50	10	10	20	13	13	7.5	150	191	57	43	109	82	0.0000	0.0000	0.0000	0.0001	0.0000	0.0001	
Ashburn Village	50	20	20	40	26	26	7.5	300	383	57	43	218	165	0.0001	0.0001	0.0001	0.0001	0.0000	0.0003	
Cascades	50	28	28	55	35	35	7.5	412.5	526	57	43	300	226	0.0001	0.0001	0.0001	0.0002	0.0001	0.0004	
Dulles North Transit	50	375	375	750	479	479	7.5	5625	7,178	57	43	4,092	3,087	0.0016	0.0016	0.0011	0.0027	0.0009	0.0052	
Hamilton	50	25	25	50	32	32	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0003	
Innovation Avenue	50	38	38	75	48	48	7.5	562.5	718	57	43	409	309	0.0002	0.0002	0.0001	0.0003	0.0001	0.0005	
Leesburg	50	25	25	50	32	32	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0003	
Leesburn Kohls	50	600	600	1200	766	766	7.5	9000	11,485	57	43	6,547	4,939	0.0025	0.0026	0.0017	0.0043	0.0015	0.0083	
Purcellville	50	18	18	35	22	22	7.5	262.5	335	57	43	191	144	0.0001	0.0001	0.0001	0.0001	0.0000	0.0002	
Sterling Park SC	50	23	23	45	29	29	7.5	337.5	431	57	43	245	185	0.0001	0.0001	0.0001	0.0002	0.0001	0.0003	
Sterling Shaw Rd	50	24	24	48	31	31	7.5	360	459	57	43	262	198	0.0001	0.0001	0.0001	0.0002	0.0001	0.0003	
PARK-AND-RIDE LOTS - VIRGINIA																				
PRINCE WILLIAM COUNTY																				
Brittany	50	48	48	95	61	61	7.5	712.5	909	57	43	518	391	0.0002	0.0002	0.0001	0.0003	0.0001	0.0007	
Dale City	50	294	294	587	375	375	7.5	4402.5	5,618	57	43	3,202	2,416	0.0012	0.0013	0.0008	0.0021	0.0007	0.0041	
Harbor Drive	50	100	100	200	128	128	7.5	1500	1,914	57	43	1,091	823	0.0004	0.0004	0.0003	0.0007	0.0002	0.0014	
Lindendale	50	108	108	216	138	138	7.5	1620	2,067	57	43	1,178	889	0.0004	0.0005	0.0003	0.0008	0.0003	0.0015	
Montclair	50	25	25	50	32	32	7.5	375	479	57	43	273	206	0.0001	0.0001	0.0001	0.0002	0.0001	0.0003	
PRTC Transit Center	50	93	93	185	118	118	7.5	1387.5	1,771	57	43	1,009	761	0.0004	0.0004	0.0003	0.0007	0.0002	0.0013	
Tackett's Mill	50	85	85	169	108	108	7.5	1267.5	1,618	57	43	922	696	0.0004	0.0004	0.0002	0.0006	0.0002	0.0012	
Triangle	50	15	15	29	19	19	7.5	217.5	278	57	43	158	119	0.0001	0.0001	0.0000	0.0001	0.0000	0.0002	
I-95 / Rt 123	50	282	282	563	359	359	7.5	4222.5	5,389	57	43	3,071	2,317	0.0012	0.0012	0.0008	0.0020	0.0007	0.0039	
US 1 / VA 234	50	137	137	274	175	175	7.5	2055	2,622	57	43	1,495	1,128	0.0006	0.0006	0.0004	0.0010	0.0003	0.0019	
MARC TRAIN COMMUTER LOTS																				
College Park	25	431	431	861	549	549	7.5	4305	5,494	57	43	3,131	2,362	0.0014	0.0012	0.0008	0.0021	0.0008	0.0043	
Frederick	0	0	0	0	0	0	7.5	0	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Greenbelt	60	1346	1346	2691	1717	1717	7.5	25230	32,197	57	43	18,352	13,845	0.0065	0.0073	0.0049	0.0121	0.0039	0.0225	
Harpers Ferry	0	98	98	195	125	125	7.5	735	938	57	43	535	403	0.0003	0.0002	0.0001	0.0004	0.0002	0.0008	
Muirkirk	60	260	260	520	332	332	7.5	4875	6,221	57	43	3,546	2,675	0.0013	0.0014	0.0009	0.0023	0.0007	0.0044	
Seabrook	0	264	264	527	337	337	4.5	1188	1,516	57	43	864	652	0.0007	0.0003	0.0002	0.0006	0.0004	0.0017	
Silver Spring	0	0	0	0	0	0	4.5	0	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Union Station	0	781	781	1561	997	997	7.5	5857.5	7,475	57	43	4,261	3,214	0.0022	0.0017	0.0011	0.0028	0.0013	0.0063	
VIRGINIA RAILWAY EXPRESS COMMUTER LOTS																				
Backlick Road	50	110	110	220	140	140	7.5	1650	2,106	57	43	1,200	905	0.0005	0.0005	0.0003	0.0008	0.0003	0.0015	
Broad Run	50	198	198	396	253	253	7.5	2970	3,790	57	43	2,160	1,630	0.0008	0.0009	0.0006	0.0014	0.0005	0.0027	
Burke Center	50	275	275	550	351	351	7.5	4125	5,264	57	43	3,001	2,264	0.0011	0.0012	0.0008	0.0020	0.0007	0.0038	
Franconia/Springfield (opera	50	1900	1900	3800	2425	2425	7.5	28500	36,370	57	43	20,731	15,639	0.0079	0.0082	0.0055	0.0137	0.0047	0.0263	
Lorton	50	100	100	200	128	128	7.5	1500	1,914	57	43	1,091	823	0.0004	0.0004	0.0003	0.0007	0.0002	0.0014	
Manassas	50	187	187	374	239	239	7.5	2805	3,580	57	43	2,040	1,539	0.0008	0.0008	0.0005	0.0013	0.0005	0.0026	
Manassas Park	50	150	150	300	191	191	7.5	2250	2,871	57	43	1,637	1,235	0.0006	0.0006	0.0004	0.0011	0.0004	0.0021	
Quantico	50	109	109	217	138	138	7.5	1627.5	2,077	57	43	1,184	893	0.0004	0.0005	0.0003	0.0008	0.0003	0.0015	
Rippon	50	150	150	300	191	191	7.5	2250	2,871	57	43	1,637	1,235	0.0006	0.0006	0.0004	0.0011	0.0004	0.0021	
Rolling Road	50	185	185	370	236	236	7.5	2775	3,541	57	43	2,019	1,523	0.0008	0.0008	0.0005	0.0013	0.0005	0.0026	
Woodbridge	50	294	294	588	375	375	7.5	4410	5,628	57	43	3,208	2,420	0.0012	0.0013	0.0009	0.0021	0.0007	0.0041	
METRO RAIL PARKING LOTS																				
Anacostia	25	861	861	1721	1099	1099	7.5	8610	10,988	57	43	6,263	4,725	0.0028	0.0025	0.0017	0.0041	0.0017	0.0086	
Branch Avenue	50	1611	1611	3222	2056	2056	7.5	24165	30,838	57	43	17,578	13,260	0.0067	0.0070	0.0047	0.0116	0.0040	0.0223	
Capitol Heights	50	194	194	387	247	247	7.5	2902.5	3,704	57	43	2,111	1,593	0.0008	0.0008	0.0006	0.0014	0.0005	0.0027	
College Park	25	465	465	930	593	593	7.5	4650	5,934	57	43	3,382	2,552	0.0015	0.0013	0.0009	0.0022	0.0009	0.0046	
Congress Heights	0	66	66	132	84	84	4.5	297	379	57	43	216	163	0.0002	0.0001	0.0001	0.0001	0.0001	0.0004	
Deanwood	0	194	194	387	247	247	7.5	1455	1,857	57	43	1,058	798	0.0005	0.0004	0.0003	0.0007	0.0003	0.0016	
East Falls Church	50	221	221	442	282	282	7.5	3315	4,230	57	43	2,411	1,819	0.0009	0.0010	0.0006	0.0016	0.0005	0.0031	
Forest Glen	50	329	329	658	420	420	7.5	4935	6,298	57	43	3,590	2,708	0.0014	0.0014	0.0010	0.0024	0.0008	0.0046	
Franconia - Springfield	50																			

Table
2010 VOC AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	E M I S S I O N S																	HOT SOAK	TOTAL (tons/day)
	OUTSIDE MSA (%)	INSIDE MSA	2002		2010 INSIDE Growth Rate	2010 OUTSIDE Growth Rate	AVERAGE TRIP LENGTH	2002 VMT	2010 VMT	ARTERIAL %	FREEWAY VMT	ARTERIAL VMT	FREEWAY VMT	COLD START Rate (gm/mile)	RUNNING				
			OUTSIDE MSA	Total											Arterial Rate (gm/mile)	Freeway Rate (gm/mile)	Total Running		
COMMUTER RAIL LOTS					1.28	1.28								0.98251667	0.17975833	0.15946667	0.585275		
Naylor Road	50	216	216	431	275	275	7.5	3232.5	4,125	57	43	2,351	1,774	0.0009	0.0009	0.0006	0.0016	0.0005	0.0030
Prince George's Plaza	25	927	309	1236	1183	394	7.5	9270	11,830	57	43	6,743	5,087	0.0030	0.0027	0.0018	0.0045	0.0018	0.0092
Southern Avenue	50	1090	1090	2180	1391	1391	4.5	9810	12,519	57	43	7,136	5,383	0.0045	0.0028	0.0019	0.0047	0.0027	0.0119
Suitland	50	1033	1033	2065	1318	1318	4.5	9292.5	11,859	57	43	6,759	5,099	0.0043	0.0027	0.0018	0.0045	0.0026	0.0113
Van Dorn Street	50	204	204	407	260	260	4.5	1831.5	2,337	57	43	1,332	1,005	0.0008	0.0005	0.0004	0.0009	0.0005	0.0022
West Hyattsville	25	453	151	604	578	193	7.5	4530	5,781	57	43	3,295	2,486	0.0015	0.0013	0.0009	0.0022	0.0009	0.0045
Wheaton	25	759	253	1012	969	323	7.5	7590	9,686	57	43	5,521	4,165	0.0024	0.0022	0.0015	0.0037	0.0015	0.0076
		78629	29681	108,310	100342	37878		711714	908,252					0.2584	0.2052	0.1373	0.3425	0.1539	0.7547

Bold figures: New numbers taken from P & R directory

Figures in bracket: Carry forward figures from conformity doc.

Park lot Growth Rate	
Transit trips 2010	1,161,947
Transit trips 2000	863783
Annual growth rate	0.03451839
Growth factor (2002-2010)	1.27614713

Table
2010 NOX AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY

06/01/09

LOCATION	E M I S S I O N S														TOTAL (tons/day)		
	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	VMT	ARTERIAL		FREEWAY		COLD START Rate (gm/mile)	RUNNING		Total Running Emission (tons/day)	
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate			%		VMT	VMT					
					1.28	1.28							0.561525	0.376	0.39108333		
COMMUTER RAIL LOTS																	
BRUNSWICK 25%	25	305	102	407	390	130	7.5	3,895	57	43	2,220	1,675	0.0006	0.0018	0.0014	0.0033	0.0038
PT OF ROCKS 25%	25	204	68	272	260	87	7.5	2,603	57	43	1,484	1,119	0.0004	0.0012	0.0010	0.0022	0.0026
DICKERSON	0	15	0	15	19	0	7.5	144	57	43	82	62	0.0000	0.0001	0.0001	0.0001	0.0001
BARNESVILLE	0	46	0	46	59	0	7.5	440	57	43	251	189	0.0001	0.0002	0.0002	0.0004	0.0004
GERMANTOWN	0	386	0	386	493	0	7.5	3,694	57	43	2,106	1,589	0.0006	0.0017	0.0014	0.0031	0.0037
MET GROVE	0	352	0	352	449	0	7.5	3,369	57	43	1,920	1,449	0.0006	0.0016	0.0012	0.0028	0.0034
WAS GROVE	0	15	0	15	19	0	7.5	144	57	43	82	62	0.0000	0.0001	0.0001	0.0001	0.0001
GARRETT PARK	0	22	0	22	28	0	7.5	211	57	43	120	91	0.0000	0.0001	0.0001	0.0002	0.0002
BOWIE 50%	50	188	188	375	239	239	7.5	3,589	57	43	2,046	1,543	0.0004	0.0017	0.0013	0.0030	0.0035
SEABROOK 15%	15	224	40	264	286	51	7.5	2,527	57	43	1,440	1,087	0.0004	0.0012	0.0009	0.0021	0.0025
KENSINGTON	0	45	0	45	57	0	7.5	431	57	43	245	185	0.0001	0.0002	0.0002	0.0004	0.0004
LAUREL 30%	30	209	90	299	267	114	7.5	2,862	57	43	1,631	1,231	0.0004	0.0014	0.0011	0.0024	0.0028
GAITHESBURG	0	280	0	280	357	0	7.5	2,680	57	43	1,528	1,152	0.0004	0.0013	0.0010	0.0023	0.0027
BERWYN HEIGHTS	0	30	0	30	38	0	4.5	172	57	43	98	74	0.0000	0.0001	0.0001	0.0001	0.0002
RIVERDALE	0	65	0	65	83	0	4.5	373	57	43	213	161	0.0001	0.0002	0.0001	0.0003	0.0004
METRO RAIL LOTS								0									
								0									
ADDISON ROAD 40%	40	791	527	1318	1009	673	7.5	12,615	57	43	7,190	5,424	0.0017	0.0060	0.0047	0.0106	0.0123
ARCHIVES	0	12	0	12	15	0	4.5	69	57	43	39	30	0.0000	0.0000	0.0000	0.0001	0.0001
ARLING	0	10	0	10	13	0	4.5	57	57	43	33	25	0.0000	0.0000	0.0000	0.0000	0.0001
BALLSTON	0	1175	0	1175	1499	0	4.5	6,748	57	43	3,846	2,901	0.0019	0.0032	0.0025	0.0057	0.0075
BENN.RD	0	520	0	520	664	0	4.5	2,986	57	43	1,702	1,284	0.0008	0.0014	0.0011	0.0025	0.0033
BETH	0	395	0	395	504	0	4.5	2,268	57	43	1,293	975	0.0006	0.0011	0.0008	0.0019	0.0025
BRADD RD	0	10	0	10	13	0	4.5	57	57	43	33	25	0.0000	0.0000	0.0000	0.0000	0.0001
BROOKLAND	0	27	0	27	34	0	4.5	155	57	43	88	67	0.0000	0.0001	0.0001	0.0001	0.0002
CHEVERLY	0	557	0	557	711	0	4.5	3,199	57	43	1,823	1,375	0.0009	0.0015	0.0012	0.0027	0.0036
CLARENDON	0	554	0	554	707	0	4.5	3,181	57	43	1,813	1,368	0.0009	0.0015	0.0012	0.0027	0.0036
CLEVELAND PK	0	366	0	366	467	0	4.5	2,102	57	43	1,198	904	0.0006	0.0010	0.0008	0.0018	0.0024
COURT HOUSE	0	256	0	256	327	0	4.5	1,470	57	43	838	632	0.0004	0.0007	0.0005	0.0012	0.0016
CRYSTAL CITY	0	347	0	347	443	0	4.5	1,993	57	43	1,136	857	0.0005	0.0009	0.0007	0.0017	0.0022
DEANWOOD	0	194	0	194	248	0	4.5	1,114	57	43	635	479	0.0003	0.0005	0.0004	0.0009	0.0012
DUN LORING 10%	10	1220	136	1355	1556	173	4.5	7,781	57	43	4,435	3,346	0.0020	0.0037	0.0029	0.0066	0.0086
DUPONT CIRCLE	0	165	0	165	211	0	4.5	948	57	43	540	407	0.0003	0.0004	0.0004	0.0008	0.0011
EASTERN MKT	0	178	0	178	227	0	4.5	1,022	57	43	583	440	0.0003	0.0005	0.0004	0.0009	0.0011
EAST FALLS CH	0	442	0	442	564	0	4.5	2,538	57	43	1,447	1,091	0.0007	0.0012	0.0009	0.0021	0.0028
EIS	0	352	0	352	449	0	4.5	2,021	57	43	1,152	869	0.0006	0.0010	0.0007	0.0017	0.0023
FARRAGUT NORTH	0	102	0	102	130	0	4.5	586	57	43	334	252	0.0002	0.0003	0.0002	0.0005	0.0007
FARRAGUT WEST	0	221	0	221	282	0	4.5	1,269	57	43	723	546	0.0003	0.0006	0.0005	0.0011	0.0014
FEDERAL CENTER	0	75	0	75	96	0	4.5	431	57	43	245	185	0.0001	0.0002	0.0002	0.0004	0.0005
FEDERAL TRI	0	54	0	54	69	0	4.5	310	57	43	177	133	0.0001	0.0001	0.0001	0.0003	0.0003
FOGGY	0	102	0	102	130	0	4.5	586	57	43	334	252	0.0002	0.0003	0.0002	0.0005	0.0007
FORT TROTTER	0	445	0	445	568	0	4.5	2,555	57	43	1,457	1,099	0.0007	0.0012	0.0009	0.0022	0.0029
FRH.HEIGHTS	0	679	0	679	867	0	4.5	3,899	57	43	2,223	1,677	0.0011	0.0018	0.0014	0.0033	0.0044
GALLERY PLACE	0	124	0	124	158	0	4.5	712	57	43	406	306	0.0002	0.0003	0.0003	0.0006	0.0008
GROSVENOR	0	716	0	716	914	0	4.5	4,112	57	43	2,344	1,768	0.0011	0.0019	0.0015	0.0035	0.0046
HUNT NORTH 40%	40	1873	1249	3122	2390	1594	7.5	29,881	57	43	17,032	12,849	0.0039	0.0141	0.0111	0.0252	0.0291
JUD SQUARE	0	110	0	110	140	0	4.5	632	57	43	360	272	0.0002	0.0003	0.0002	0.0005	0.0007
KING ST	0	30	0	30	38	0	4.5	172	57	43	98	74	0.0000	0.0001	0.0001	0.0001	0.0002
								0									
								0									
LANDOVER 25%	25	1410	470	1880	1799	600	7.5	17,994	57	43	10,256	7,737	0.0026	0.0085	0.0067	0.0152	0.0178
L'ENFANT PLAZA	0	296	0	296	378	0	4.5	1,700	57	43	969	731	0.0005	0.0008	0.0006	0.0014	0.0019
MCPHERSON SO	0	52	0	52	66	0	4.5	299	57	43	170	128	0.0001	0.0001	0.0001	0.0003	0.0003

Table
2010 NOX AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY

06/01/09

LOCATION	E M I S S I O N S													COLD START	RUNNING			TOTAL
	OUTSIDE MSA (%)	INSIDE MSA	2002		2010		AVERAGE TRIP LENGTH	VMT	ARTERIAL		FREEWAY		Arterial		Freeway	Total Running Emission (tons/day)		
			OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate			%	VMT	VMT							
					1.28	1.28							0.561525	0.376	0.39108333			
COMMUTER RAIL LOTS																		
MEDICAL CENTER	0	14	0	14	18	0	4.5	80	57	43	46	35	0.0000	0.0000	0.0000	0.0001		
METRO CENTER	0	177	0	177	226	0	4.5	1,016	57	43	579	437	0.0003	0.0005	0.0004	0.0009		
MINNES	0	353	0	353	450	0	4.5	2,027	57	43	1,155	872	0.0006	0.0010	0.0008	0.0017		
NAT AIR	0	87	0	87	111	0	4.5	500	57	43	285	215	0.0001	0.0002	0.0002	0.0004		
NEW CARROL 50%	50	1049	1049	2097	1338	1338	7.5	20,071	57	43	11,440	8,630	0.0025	0.0095	0.0074	0.0169		
PRNTAGON	0	561	0	561	716	0	4.5	3,222	57	43	1,836	1,385	0.0009	0.0015	0.0012	0.0027		
PENTAGON CITY	0	381	0	381	486	0	4.5	2,188	57	43	1,247	941	0.0006	0.0010	0.0008	0.0018		
POTOMAC AVE	0	533	0	533	680	0	4.5	3,061	57	43	1,745	1,316	0.0008	0.0014	0.0011	0.0026		
ROCKVILLE	0	667	0	667	851	0	4.5	3,830	57	43	2,183	1,647	0.0011	0.0018	0.0014	0.0032		
ROSSLYN	0	356	0	356	454	0	4.5	2,044	57	43	1,165	879	0.0006	0.0010	0.0008	0.0017		
SHADY GROVE 10%	10	3903	434	4337	4981	553	7.5	41,510	57	43	23,661	17,849	0.0065	0.0196	0.0154	0.0350		
SILVER SPRING	0	44	0	44	56	0	4.5	253	57	43	144	109	0.0001	0.0001	0.0001	0.0002		
SMITH MALL	0	120	0	120	153	0	4.5	689	57	43	393	296	0.0002	0.0003	0.0003	0.0006		
STADIUM ARM	0	976	0	976	1246	0	4.5	5,605	57	43	3,195	2,410	0.0015	0.0026	0.0021	0.0047		
TAKOMA PK	0	146	0	146	186	0	4.5	838	57	43	478	361	0.0002	0.0004	0.0003	0.0007		
TENLEYTON	0	17	0	17	22	0	4.5	98	57	43	56	42	0.0000	0.0000	0.0000	0.0001		
TWINBROOK	0	1136	0	1136	1450	0	4.5	6,524	57	43	3,718	2,805	0.0018	0.0031	0.0024	0.0055		
UNION STAT	0	378	0	378	482	0	4.5	2,171	57	43	1,237	933	0.0006	0.0010	0.0008	0.0018		
VAN NESS	0	343	0	343	438	0	4.5	1,970	57	43	1,123	847	0.0005	0.0009	0.0007	0.0017		
VIENNA 25%	25	2798	933	3731	3571	1190	7.5	35,710	57	43	20,355	15,355	0.0052	0.0169	0.0132	0.0301		
VA SQUARE	0	642	0	642	819	0	4.5	3,687	57	43	2,101	1,585	0.0010	0.0017	0.0014	0.0031		
WEST FALLS CHURCH	0	2183	0	2183	2786	0	4.5	12,536	57	43	7,146	5,391	0.0034	0.0059	0.0046	0.0106		
WHITE FLINT	0	1633	0	1633	2084	0	4.5	9,378	57	43	5,345	4,032	0.0026	0.0044	0.0035	0.0079		
WOODLEY	0	68	0	68	87	0	4.5	391	57	43	223	168	0.0001	0.0002	0.0001	0.0003		
RHODE ISLAND 30%	30	266	114	380	339	145	7.5	3,637	57	43	2,073	1,564	0.0005	0.0017	0.0013	0.0031		
								0										
BUS & CAR POOL LOTS								0										
								0										
CARTER BARRON	0	798	0	798	1018	0	4.5	4,583	57	43	2,612	1,971	0.0013	0.0022	0.0017	0.0039		
PG PLAZA	0	47	0	47	60	0	4.5	270	57	43	154	116	0.0001	0.0001	0.0001	0.0002		
PENN MAR SHOPP.	0	100	0	100	128	0	4.5	574	57	43	327	247	0.0002	0.0003	0.0002	0.0005		
CAP PLAZA	0	100	0	100	128	0	4.5	574	57	43	327	247	0.0002	0.0003	0.0002	0.0005		
EASTOVER	0	100	0	100	128	0	4.5	574	57	43	327	247	0.0002	0.0003	0.0002	0.0005		
FOUR MILE RUN	0	28	0	28	36	0	4.5	161	57	43	92	69	0.0000	0.0001	0.0001	0.0001		
SPRINGFIELD MALL	0	580	0	580	740	0	4.5	3,331	57	43	1,899	1,432	0.0009	0.0016	0.0012	0.0028		
SPRINGFIELD METH CH	0	48	0	48	61	0	4.5	276	57	43	157	119	0.0001	0.0001	0.0001	0.0002		
FRED ARMORY	0	33	0	33	42	0	7.5	316	57	43	180	136	0.0001	0.0001	0.0001	0.0003		
MYERSVILLE	0	65	0	65	83	0	7.5	622	57	43	355	268	0.0001	0.0003	0.0002	0.0005		
ROSEMONT	0	45	0	45	57	0	7.5	431	57	43	245	185	0.0001	0.0002	0.0002	0.0004		
URBANA	0	193	0	193	246	0	7.5	1,847	57	43	1,053	794	0.0003	0.0009	0.0007	0.0016		
JEFFERSON	0	40	0	40	51	0	7.5	383	57	43	218	165	0.0001	0.0002	0.0001	0.0003		
NORBECK RD	0	248	0	248	316	0	7.5	2,374	57	43	1,353	1,021	0.0004	0.0011	0.0009	0.0020		
MONROSE RD	0	650	0	650	829	0	7.5	6,221	57	43	3,546	2,675	0.0010	0.0029	0.0023	0.0052		
BRIGG CHENNY 50%	50	215	215	430	274	274	7.5	4,116	57	43	2,346	1,770	0.0005	0.0019	0.0015	0.0035		
COMUS ROAD	0	30	0	30	38	0	7.5	287	57	43	164	123	0.0000	0.0001	0.0001	0.0002		
LAKEFOREST MALL	0	300	0	300	383	0	7.5	2,871	57	43	1,637	1,235	0.0005	0.0014	0.0011	0.0024		
BURTONSVILLE	0	500	0	500	638	0	7.5	4,786	57	43	2,728	2,058	0.0008	0.0023	0.0018	0.0040		
FORCEY MEM.	0	200	0	200	255	0	7.5	1,914	57	43	1,091	823	0.0003	0.0009	0.0007	0.0016		
TECH ROAD	0	155	0	155	198	0	7.5	1,484	57	43	846	638	0.0002	0.0007	0.0006	0.0013		
BELTWAY	0	265	0	265	338	0	7.5	2,536	57	43	1,446	1,091	0.0004	0.0012	0.0009	0.0021		
LAUREL VAN DUSEN	0	62	0	62	79	0	7.5	593	57	43	338	255	0.0001	0.0003	0.0002	0.0005		
ACCOKEEK	0	450	0	450	574	0	7.5	4,307	57	43	2,455	1,852	0.0007	0.0020	0.0016	0.0036		
ABC DRIVE IN	0	100	0	100	128	0	7.5	957	57	43	546	412	0.0002	0.0005	0.0004	0.0008		
BOWIE 20%	20	526	131	657	671	168	7.5	6,288	57	43	3,584	2,704	0.0009	0.0030	0.0023	0.0053		
CLINTON 50%	50	212	212	424	271	271	7.5	4,058	57	43	2,313	1,745	0.0005	0.0019	0.0015	0.0034		

Table
2010 NOX AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY

06/01/09

LOCATION													E M I S S I O N S					
	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	VMT	ARTERIAL		FREEWAY		COLD START	RUNNING		Total Running Emission (tons/day)	TOTAL (tons/day)	
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate			%		VMT	VMT		Rate (gm/mile)	Rate (gm/mile)			Rate (gm/mile)
					1.28	1.28						0.561525	0.376	0.39108333				
COMMUTER RAIL LOTS																		
OXON HILL 20%	20	519	130	649	663	166	7.5	6,212	57	43	3,541	2,671	0.0009	0.0029	0.0023	0.0052	0.0062	
EQUESTRIAN CENTER 50%	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,235	0.0004	0.0014	0.0011	0.0024	0.0028	
BOWIE MARKET PLACE	0	50	0	50	64	0	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
FT.WASHINGTON	0	412	0	412	526	0	7.5	3,943	57	43	2,248	1,696	0.0007	0.0019	0.0015	0.0033	0.0040	
MONTPELIER REC PARK	0	70	0	70	89	0	7.5	670	57	43	382	288	0.0001	0.0003	0.0002	0.0006	0.0007	
RESTON	0	1547	0	1547	1974	0	7.5	14,806	57	43	8,440	6,367	0.0024	0.0070	0.0055	0.0125	0.0149	
GREENBRIAR	0	55	0	55	70	0	7.5	526	57	43	300	226	0.0001	0.0002	0.0002	0.0004	0.0005	
FAIR OAKS	0	150	0	150	191	0	7.5	1,436	57	43	818	617	0.0002	0.0007	0.0005	0.0012	0.0014	
ROLLING VALLEY	0	628	0	628	801	0	7.5	6,011	57	43	3,426	2,585	0.0010	0.0028	0.0022	0.0051	0.0061	
SPRINGFIELD PLAZA	0	230	0	230	294	0	7.5	2,201	57	43	1,255	947	0.0004	0.0010	0.0008	0.0019	0.0022	
FAIRLANES BOWL	0	35	0	35	45	0	7.5	335	57	43	191	144	0.0001	0.0002	0.0001	0.0003	0.0003	
NOTTOWAY PARK	0	14	0	14	18	0	7.5	134	57	43	76	58	0.0000	0.0001	0.0000	0.0001	0.0001	
HORNER RD	0	2397	0	2397	3059	0	7.5	22,942	57	43	13,077	9,865	0.0038	0.0108	0.0085	0.0193	0.0231	
LAKE RIDGE	0	555	0	555	708	0	7.5	5,312	57	43	3,028	2,284	0.0009	0.0025	0.0020	0.0045	0.0054	
MINNIEVILLE RD 40%	40	336	224	560	429	286	7.5	5,360	57	43	3,055	2,305	0.0007	0.0025	0.0020	0.0045	0.0052	
GORDON BLVD	0	156	0	156	199	0	7.5	1,493	57	43	851	642	0.0002	0.0007	0.0006	0.0013	0.0015	
HILLEDALE	0	248	0	248	316	0	7.5	2,374	57	43	1,353	1,021	0.0004	0.0011	0.0009	0.0020	0.0024	
POTOMAC MILLS	0	946	0	946	1207	0	7.5	9,054	57	43	5,161	3,893	0.0015	0.0043	0.0034	0.0076	0.0091	
								0										
								0										
								0										
PARK-AND-RIDE LOTS - MARYLAND																		
CALVERT COUNTY																		
Dunkirk	25	32	11	42	40	13	7.5	402	57	43	229	173	0.0001	0.0002	0.0001	0.0003	0.0004	
Huntingtown	25	26	9	35	33	11	7.5	335	57	43	191	144	0.0000	0.0002	0.0001	0.0003	0.0003	
Lord Calvert Bowling Alley	25	83	28	110	105	35	7.5	1,053	57	43	600	453	0.0002	0.0005	0.0004	0.0009	0.0010	
Lusby	25	23	8	30	29	10	7.5	287	57	43	164	123	0.0000	0.0001	0.0001	0.0002	0.0003	
North Beach VFD	25	53	18	70	67	22	7.5	670	57	43	382	288	0.0001	0.0003	0.0002	0.0006	0.0007	
Prince Frederick	25	53	18	70	67	22	7.5	670	57	43	382	288	0.0001	0.0003	0.0002	0.0006	0.0007	
St. Leonard	25	38	13	50	48	16	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
Sunderland	25	80	27	106	101	34	7.5	1,015	57	43	578	436	0.0001	0.0005	0.0004	0.0009	0.0010	
PARK-AND-RIDE LOTS - MARYLAND																		
CHARLES COUNTY																		
301 Park & Ride	25	287	96	383	367	122	7.5	3,666	57	43	2,089	1,576	0.0005	0.0017	0.0014	0.0031	0.0036	
Charles County Government	25	26	9	35	33	11	7.5	335	57	43	191	144	0.0000	0.0002	0.0001	0.0003	0.0003	
Food Lion Shopping Center	25	38	13	50	48	16	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
La Plata Armory	25	15	5	20	19	6	7.5	191	57	43	109	82	0.0000	0.0001	0.0001	0.0002	0.0002	
Laurel Springs Regional Park	25	38	13	50	48	16	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
Life Wesleyan Church	25	38	13	50	48	16	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
Mattawoman-Beantown Rd	25	435	145	580	555	185	7.5	5,551	57	43	3,164	2,387	0.0008	0.0026	0.0021	0.0047	0.0055	
Smallwood Village	25	75	25	100	96	32	7.5	957	57	43	546	412	0.0001	0.0005	0.0004	0.0008	0.0009	
St. Charles Towne	25	263	88	350	335	112	7.5	3,350	57	43	1,909	1,440	0.0005	0.0016	0.0012	0.0028	0.0033	
PARK-AND-RIDE LOTS - MARYLAND																		
FREDERICK COUNTY																		
Frederick (north)	25	123	41	164	157	52	7.5	1,570	57	43	895	675	0.0002	0.0007	0.0006	0.0013	0.0016	
Frederick (south)	25	173	58	230	220	73	7.5	2,201	57	43	1,255	947	0.0003	0.0010	0.0008	0.0019	0.0022	
Monacacy Marcs	25	600	200	800	766	255	7.5	7,657	57	43	4,364	3,292	0.0011	0.0036	0.0028	0.0065	0.0076	
PARK-AND-RIDE LOTS - MARYLAND																		
MONTGOMERY COUNTY																		
Colesville	0	190	0	190	242	0	7.5	1,819	57	43	1,037	782	0.0003	0.0009	0.0007	0.0015	0.0018	
Damascus	50	0	0	0	0	0	7.5	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Gaithersburg	50	259	259	517	330	330	7.5	4,948	57	43	2,821	2,128	0.0006	0.0023	0.0018	0.0042	0.0048	
Gaithersburg	50	175	175	350	223	223	7.5	3,350	57	43	1,909	1,440	0.0004	0.0016	0.0012	0.0028	0.0032	
Germantown Town	50	0	0	0	0	0	7.5	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Greencastle	50	75	75	150	96	96	7.5	1,436	57	43	818	617	0.0002	0.0007	0.0005	0.0012	0.0014	
Milestone Shopping	50	88	88	175	112	112	7.5	1,675	57	43	955	720	0.0002	0.0008	0.0006	0.0014	0.0016	

Table
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AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY

06/01/09

													E M I S S I O N S					
LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	VMT	ARTERIAL		FREEWAY	ARTERIAL VMT	FREEWAY VMT	COLD START Rate (gm/mile)	RUNNING		Total Running Emission (tons/day)	TOTAL (tons/day)
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate			%									
					1.28	1.28							0.561525	0.376	0.39108333			
COMMUTER RAIL LOTS																		
PARK-AND-RIDE LOTS - MAYLAND																		
PRINCE GEORGE'S COUNTY																		
Hampton Mall	0	100	0	100	128	0	4.5	574	57	43	327	247	0.0002	0.0003	0.0002	0.0005	0.0006	
Laurel (south)	25	513	171	684	655	218	7.5	6,547	57	43	3,732	2,815	0.0009	0.0031	0.0024	0.0055	0.0065	
PARK-AND-RIDE LOTS - VIRGINIA																		
ARLINGTON COUNTY																		
Ballston Public Parking Gara	25	375	125	500	479	160	7.5	4,786	57	43	2,728	2,058	0.0007	0.0023	0.0018	0.0040	0.0047	
Washington-Lee	50	178	178	356	227	227	7.5	3,407	57	43	1,942	1,465	0.0004	0.0016	0.0013	0.0029	0.0033	
PARK-AND-RIDE LOTS - VIRGINIA																		
FAIRFAX COUNTY																		
American Legion	50	50	50	100	64	64	7.5	957	57	43	546	412	0.0001	0.0005	0.0004	0.0008	0.0009	
Canterbury Woods Pk	50	17	17	34	22	22	7.5	325	57	43	185	140	0.0000	0.0002	0.0001	0.0003	0.0003	
Centreville	50	185	185	370	236	236	7.5	3,541	57	43	2,019	1,523	0.0004	0.0017	0.0013	0.0030	0.0034	
Centreville United Methodist	50	74	74	147	94	94	7.5	1,407	57	43	802	605	0.0002	0.0007	0.0005	0.0012	0.0014	
Fairfax County Government	50	85	85	170	108	108	7.5	1,627	57	43	927	700	0.0002	0.0008	0.0006	0.0014	0.0016	
Greenbriar Park	50	28	28	55	35	35	7.5	526	57	43	300	226	0.0001	0.0002	0.0002	0.0004	0.0005	
Herdon-Monroe	50	873	873	1,745	1113	1113	7.5	16,702	57	43	9,520	7,182	0.0021	0.0079	0.0062	0.0141	0.0162	
Michael's	50	100	100	200	128	128	7.5	1,914	57	43	1,091	823	0.0002	0.0009	0.0007	0.0016	0.0019	
Parkwood Baptist	50	9	9	18	11	11	7.5	172	57	43	98	74	0.0000	0.0001	0.0001	0.0001	0.0002	
South Run District Pk	50	170	170	340	217	217	7.5	3,254	57	43	1,855	1,399	0.0004	0.0015	0.0012	0.0027	0.0031	
St Paul Chung Catholic Church	50	50	50	100	64	64	7.5	957	57	43	546	412	0.0001	0.0005	0.0004	0.0008	0.0009	
Stringfellow Rd	50	181	181	361	230	230	7.5	3,455	57	43	1,969	1,486	0.0004	0.0016	0.0013	0.0029	0.0033	
Sully Station	50	70	70	140	89	89	7.5	1,340	57	43	764	576	0.0002	0.0006	0.0005	0.0011	0.0013	
Sydenstricker Rd	50	84	84	167	107	107	7.5	1,598	57	43	911	687	0.0002	0.0008	0.0006	0.0013	0.0015	
Wakefield Chapel Pk	50	25	25	50	32	32	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
PARK-AND-RIDE LOTS - VIRGINIA																		
LOUDOUN COUNTY																		
Ashburn Farm	50	10	10	20	13	13	7.5	191	57	43	109	82	0.0000	0.0001	0.0001	0.0002	0.0002	
Ashburn Village	50	20	20	40	26	26	7.5	383	57	43	218	165	0.0000	0.0002	0.0001	0.0003	0.0004	
Cascades	50	28	28	55	35	35	7.5	526	57	43	300	226	0.0001	0.0002	0.0002	0.0004	0.0005	
Dulles North Transit	50	375	375	750	479	479	7.5	7,178	57	43	4,092	3,087	0.0009	0.0034	0.0027	0.0061	0.0069	
Hamilton	50	25	25	50	32	32	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
Innovation Avenue	50	38	38	75	48	48	7.5	718	57	43	409	309	0.0001	0.0003	0.0003	0.0006	0.0007	
Leesburg	50	25	25	50	32	32	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
Leesburg Kohls	50	600	600	1200	766	766	7.5	11,485	57	43	6,547	4,939	0.0014	0.0054	0.0043	0.0097	0.0111	
Purcellville	50	18	18	35	22	22	7.5	335	57	43	191	144	0.0000	0.0002	0.0001	0.0003	0.0003	
Sterling Park SC	50	23	23	45	29	29	7.5	431	57	43	245	185	0.0001	0.0002	0.0002	0.0004	0.0004	
Sterling Shaw Rd	50	24	24	48	31	31	7.5	459	57	43	262	198	0.0001	0.0002	0.0002	0.0004	0.0004	
PARK-AND-RIDE LOTS - VIRGINIA																		
PRINCE WILLIAM COUNTY																		
Brittany	50	48	48	95	61	61	7.5	909	57	43	518	391	0.0001	0.0004	0.0003	0.0008	0.0009	
Dale City	50	294	294	587	375	375	7.5	5,618	57	43	3,202	2,416	0.0007	0.0027	0.0021	0.0047	0.0054	
Harbor Drive	50	100	100	200	128	128	7.5	1,914	57	43	1,091	823	0.0002	0.0009	0.0007	0.0016	0.0019	
Lindendale	50	108	108	216	138	138	7.5	2,067	57	43	1,178	889	0.0003	0.0010	0.0008	0.0017	0.0020	
Montclair	50	25	25	50	32	32	7.5	479	57	43	273	206	0.0001	0.0002	0.0002	0.0004	0.0005	
PRTC Transit Center	50	93	93	185	118	118	7.5	1,771	57	43	1,009	761	0.0002	0.0008	0.0007	0.0015	0.0017	
Tackett's Mill	50	85	85	169	108	108	7.5	1,618	57	43	922	696	0.0002	0.0008	0.0006	0.0014	0.0016	
Triangle	50	15	15	29	19	19	7.5	278	57	43	158	119	0.0000	0.0001	0.0001	0.0002	0.0003	
I-95 / Rt 123	50	282	282	563	359	359	7.5	5,389	57	43	3,071	2,317	0.0007	0.0025	0.0020	0.0045	0.0052	
US 1 / VA 234	50	137	137	274	175	175	7.5	2,622	57	43	1,495	1,128	0.0003	0.0012	0.0010	0.0022	0.0025	
MARC TRAIN COMMUTER LOTS																		
College Park	25	431	144	574	549	183	7.5	5,494	57	43	3,131	2,362	0.0008	0.0026	0.0020	0.0046	0.0054	
Frederick	0	0	0	0	0	0	7.5	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	

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AUTO ACCESS TO TRANSIT
(8-HOUR OZONE AREA)
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY

06/01/09

														E M I S S I O N S				
LOCATION	OUTSIDE MSA (%)	INSIDE MSA	2002		Total	2010		AVERAGE TRIP LENGTH	VMT	ARTERIAL		FREEWAY		COLD START	RUNNING		Total Running Emission (tons/day)	TOTAL (tons/day)
			OUTSIDE MSA	Total		INSIDE Growth Rate	OUTSIDE Growth Rate			%		VMT	VMT		Arterial	Freeway		
										Rate (gm/mile)	Rate (gm/mile)							
						1.28	1.28						0.561525	0.376	0.39108333			
COMMUTER RAIL LOTS																		
Greenbelt	60	1346	2018	3364	1717	2576	7.5	32,197	57	43	18,352	13,845	0.0037	0.0152	0.0119	0.0271	0.0309	
Harpers Ferry		98	0	98	125	0	7.5	938	57	43	535	403	0.0002	0.0004	0.0003	0.0008	0.0009	
Muirkirk	60	260	390	650	332	498	7.5	6,221	57	43	3,546	2,675	0.0007	0.0029	0.0023	0.0052	0.0060	
Seabrook	0	264	0	264	337	0	4.5	1,516	57	43	864	652	0.0004	0.0007	0.0006	0.0013	0.0017	
Silver Spring	0	0	0	0	0	0	4.5	0	57	43	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Union Station	0	781	0	781	997	0	7.5	7,475	57	43	4,261	3,214	0.0012	0.0035	0.0028	0.0063	0.0075	
VIRGINIA RAILWAY EXPRESS COMMUTER LOTS																		
Backlick Road	50	110	110	220	140	140	7.5	2,106	57	43	1,200	905	0.0003	0.0010	0.0008	0.0018	0.0020	
Broad Run	50	198	198	396	253	253	7.5	3,790	57	43	2,160	1,630	0.0005	0.0018	0.0014	0.0032	0.0037	
Burke Center	50	275	275	550	351	351	7.5	5,264	57	43	3,001	2,264	0.0007	0.0025	0.0020	0.0044	0.0051	
Franconia/Springfield (opera	50	1900	1900	3800	2425	2425	7.5	36,370	57	43	20,731	15,639	0.0045	0.0172	0.0135	0.0307	0.0352	
Lorton	50	100	100	200	128	128	7.5	1,914	57	43	1,091	823	0.0002	0.0009	0.0007	0.0016	0.0019	
Manassas	50	187	187	374	239	239	7.5	3,580	57	43	2,040	1,539	0.0004	0.0017	0.0013	0.0030	0.0035	
Manassas Park	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,235	0.0004	0.0014	0.0011	0.0024	0.0028	
Quantico	50	109	109	217	138	138	7.5	2,077	57	43	1,184	893	0.0003	0.0010	0.0008	0.0018	0.0020	
Rippon	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,235	0.0004	0.0014	0.0011	0.0024	0.0028	
Rolling Road	50	185	185	370	236	236	7.5	3,541	57	43	2,019	1,523	0.0004	0.0017	0.0013	0.0030	0.0034	
Woodbridge	50	294	294	588	375	375	7.5	5,628	57	43	3,208	2,420	0.0007	0.0027	0.0021	0.0047	0.0054	
METRORAIL PARKING LOTS																		
Anacostia	25	861	287	1148	1099	366	7.5	10,988	57	43	6,263	4,725	0.0016	0.0052	0.0041	0.0093	0.0109	
Branch Avenue	50	1611	1611	3222	2056	2056	7.5	30,838	57	43	17,578	13,260	0.0038	0.0146	0.0114	0.0260	0.0298	
Capitol Heights	50	194	194	387	247	247	7.5	3,704	57	43	2,111	1,593	0.0005	0.0018	0.0014	0.0031	0.0036	
College Park	25	465	155	620	593	198	7.5	5,934	57	43	3,382	2,552	0.0009	0.0028	0.0022	0.0050	0.0059	
Congress Heights	0	66	0	66	84	0	4.5	379	57	43	216	163	0.0001	0.0002	0.0001	0.0003	0.0004	
Deanwood	0	194	0	194	248	0	7.5	1,857	57	43	1,058	798	0.0003	0.0009	0.0007	0.0016	0.0019	
East Falls Church	50	221	221	442	282	282	7.5	4,230	57	43	2,411	1,819	0.0005	0.0020	0.0016	0.0036	0.0041	
Forest Glen	50	329	329	658	420	420	7.5	6,298	57	43	3,590	2,708	0.0008	0.0030	0.0023	0.0053	0.0061	
Franconia - Springfield	50	1987	1987	3973	2535	2535	4.5	22,816	57	43	13,005	9,811	0.0047	0.0108	0.0085	0.0192	0.0239	
Glenmont	50	925	925	1850	1180	1180	4.5	10,624	57	43	6,056	4,568	0.0022	0.0050	0.0039	0.0090	0.0112	
Greenbelt	50	1783	1783	3565	2275	2275	7.5	34,121	57	43	19,449	14,672	0.0042	0.0161	0.0127	0.0288	0.0330	
Naylor Road	50	216	216	431	275	275	7.5	4,125	57	43	2,351	1,774	0.0005	0.0019	0.0015	0.0035	0.0040	
Prince George's Plaza	25	927	309	1236	1183	394	7.5	11,830	57	43	6,743	5,087	0.0017	0.0056	0.0044	0.0100	0.0117	
Southern Avenue	50	1090	1090	2180	1391	1391	4.5	12,519	57	43	7,136	5,383	0.0026	0.0059	0.0046	0.0106	0.0131	
Suitland	50	1033	1033	2065	1318	1318	4.5	11,859	57	43	6,759	5,099	0.0024	0.0056	0.0044	0.0100	0.0124	
Van Dorn Street	50	204	204	407	260	260	4.5	2,337	57	43	1,332	1,005	0.0005	0.0011	0.0009	0.0020	0.0025	
West Hyattsville	25	453	151	604	578	193	7.5	5,781	57	43	3,295	2,486	0.0008	0.0027	0.0021	0.0049	0.0057	
Wheaton	25	759	253	1012	969	323	7.5	9,686	57	43	5,521	4,165	0.0014	0.0046	0.0036	0.0082	0.0096	
														0.1477	0.4291	0.3367	0.7659	0.9135

Bold figures: New numbers taken from P & R directory
Figures in bracket: Carry forward figures from conformity doc.

Park lot Growth Rate	
Transit trips 2010	1,161,947
Transit trips 2000	863,783
Annual growth rate	0.0345184
Growth factor (2002-2010)	1.2761471

SEASON 1 (Jan-Apr)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	E M I S S I O N S																		
	OUTSID E MSA (%)	INSIDE MSA	2002		2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL %	FREEWAY VMT	ARTERIAL VMT	Adj.Art VMT	FREEWAY VMT	Adj.Fwy VMT	COLD START	RUNNING			TOTAL
			Total	INSIDE Growth Rate	OUTSIDE Growth Rate	Arterial										Freeway	Total Running Emission (tones/day)	(tons/day)	
COMMUTER RAIL LOTS					1.28	1.28					Wk Days = 83			0.8488	0.5288	0.5542			
											Seasonal adj = 0.9216								
BRUNSWICK 25%	25	305	102	407	390	130	7.5	3,895	57	43	2,220	2,046	1,675	1,544	0.0007	0.0024	0.0019	0.0043	0.0049
PT OF ROCKS 25%	25	204	68	272	260	87	7.5	2,603	57	43	1,484	1,368	1,119	1,032	0.0004	0.0016	0.0013	0.0029	0.0033
DICKERSON	0	15	0	15	19	0	7.5	144	57	43	82	75	62	57	0.0000	0.0001	0.0001	0.0002	0.0002
BARNESVILLE	0	46	0	46	59	0	7.5	440	57	43	251	231	189	174	0.0001	0.0003	0.0002	0.0005	0.0006
GERMANTOWN	0	386	0	386	493	0	7.5	3,694	57	43	2,106	1,941	1,589	1,464	0.0007	0.0023	0.0018	0.0041	0.0048
MET GROVE	0	352	0	352	449	0	7.5	3,369	57	43	1,920	1,770	1,449	1,335	0.0007	0.0021	0.0016	0.0037	0.0044
WAS GROVE	0	15	0	15	19	0	7.5	144	57	43	82	75	62	57	0.0000	0.0001	0.0001	0.0002	0.0002
GARRETT PARK	0	22	0	22	28	0	7.5	211	57	43	120	111	91	83	0.0000	0.0001	0.0001	0.0002	0.0003
BOWIE 50%	50	188	188	375	239	239	7.5	3,589	57	43	2,046	1,885	1,543	1,422	0.0005	0.0022	0.0017	0.0039	0.0045
SEABROOK 15%	15	224	40	264	286	51	7.5	2,527	57	43	1,440	1,327	1,087	1,001	0.0005	0.0015	0.0012	0.0028	0.0032
KENSINGTON	0	45	0	45	57	0	7.5	431	57	43	245	226	185	171	0.0001	0.0003	0.0002	0.0005	0.0006
LAUREL 30%	30	209	90	299	267	114	7.5	2,862	57	43	1,631	1,503	1,231	1,134	0.0005	0.0018	0.0014	0.0031	0.0036
GAITHESBURG	0	280	0	280	357	0	7.5	2,680	57	43	1,528	1,408	1,152	1,062	0.0005	0.0016	0.0013	0.0029	0.0035
BERWYN HEIGHTS	0	30	0	30	38	0	4.5	172	57	43	98	91	74	68	0.0001	0.0001	0.0001	0.0002	0.0002
RIVERDALE	0	65	0	65	83	0	4.5	373	57	43	213	196	161	148	0.0001	0.0002	0.0002	0.0004	0.0005
METRO RAIL LOTS																			
ADDISON ROAD 40%	40	791	527	1318	1009	673	7.5	12,615	57	43	7,190	6,627	5,424	4,999	0.0020	0.0077	0.0061	0.0138	0.0158
ARCHIVES	0	12	0	12	15	0	4.5	69	57	43	39	36	30	27	0.0000	0.0000	0.0000	0.0001	0.0001
ARLING	0	10	0	10	13	0	4.5	57	57	43	33	30	25	23	0.0000	0.0000	0.0000	0.0001	0.0001
BALLSTON	0	1175	0	1175	1499	0	4.5	6,748	57	43	3,846	3,545	2,901	2,674	0.0022	0.0041	0.0033	0.0074	0.0096
BENN.RD	0	520	0	520	664	0	4.5	2,986	57	43	1,702	1,569	1,284	1,183	0.0010	0.0018	0.0014	0.0033	0.0042
BETH	0	395	0	395	504	0	4.5	2,268	57	43	1,293	1,192	975	899	0.0007	0.0014	0.0011	0.0025	0.0032
BRADD RD	0	10	0	10	13	0	4.5	57	57	43	33	30	25	23	0.0000	0.0000	0.0000	0.0001	0.0001
BROOKLAND	0	27	0	27	34	0	4.5	155	57	43	88	81	67	61	0.0001	0.0001	0.0001	0.0002	0.0002
CHEVERLY	0	557	0	557	711	0	4.5	3,199	57	43	1,823	1,680	1,375	1,268	0.0010	0.0020	0.0015	0.0035	0.0045
CLARENDON	0	554	0	554	707	0	4.5	3,181	57	43	1,813	1,671	1,368	1,261	0.0010	0.0019	0.0015	0.0035	0.0045
CLEVELAND PK	0	366	0	366	467	0	4.5	2,102	57	43	1,198	1,104	904	833	0.0007	0.0013	0.0010	0.0023	0.0030
COURT HOUSE	0	256	0	256	327	0	4.5	1,470	57	43	838	772	632	583	0.0005	0.0009	0.0007	0.0016	0.0021
CRYSTAL CITY	0	347	0	347	443	0	4.5	1,993	57	43	1,136	1,047	857	790	0.0006	0.0012	0.0010	0.0022	0.0028
DEANWOOD	0	194	0	194	248	0	4.5	1,114	57	43	635	585	479	441	0.0004	0.0007	0.0005	0.0012	0.0016
DUN LORING 10%	10	1220	136	1355	1556	173	4.5	7,781	57	43	4,435	4,088	3,346	3,084	0.0024	0.0048	0.0038	0.0085	0.0109
DUPONT CIRCLE	0	165	0	165	211	0	4.5	948	57	43	540	498	407	375	0.0003	0.0006	0.0005	0.0010	0.0013
EASTERN MKT	0	178	0	178	227	0	4.5	1,022	57	43	583	537	440	405	0.0003	0.0006	0.0005	0.0011	0.0015
EAST FALLS CH	0	442	0	442	564	0	4.5	2,538	57	43	1,447	1,333	1,091	1,006	0.0008	0.0016	0.0012	0.0028	0.0036
EIS	0	352	0	352	449	0	4.5	2,021	57	43	1,152	1,062	869	801	0.0007	0.0012	0.0010	0.0022	0.0029
FARRAGUT NORTH	0	102	0	102	130	0	4.5	586	57	43	334	308	252	232	0.0002	0.0004	0.0003	0.0006	0.0008
FARRAGUT WEST	0	221	0	221	282	0	4.5	1,269	57	43	723	667	546	503	0.0004	0.0008	0.0006	0.0014	0.0018
FEDERAL CENTER	0	75	0	75	96	0	4.5	431	57	43	245	226	185	171	0.0001	0.0003	0.0002	0.0005	0.0006
FEDERAL TRI	0	54	0	54	69	0	4.5	310	57	43	177	163	133	123	0.0001	0.0002	0.0002	0.0003	0.0004
FOGGY	0	102	0	102	130	0	4.5	586	57	43	334	308	252	232	0.0002	0.0004	0.0003	0.0006	0.0008
FORT TROTTER	0	445	0	445	568	0	4.5	2,555	57	43	1,457	1,342	1,099	1,013	0.0008	0.0016	0.0012	0.0028	0.0036
FRH.HEIGHTS	0	679	0	679	867	0	4.5	3,899	57	43	2,223	2,048	1,677	1,545	0.0013	0.0024	0.0019	0.0043	0.0055
GALLERY PLACE	0	124	0	124	158	0	4.5	712	57	43	406	374	306	282	0.0002	0.0004	0.0003	0.0008	0.0010
GROSVENOR	0	716	0	716	914	0	4.5	4,112	57	43	2,344	2,160	1,768	1,629	0.0013	0.0025	0.0020	0.0045	0.0058
HUNT NORTH 40%	40	1873	1249	3122	2390	1594	7.5	29,881	57	43	17,032	15,697	12,849	11,841	0.0047	0.0183	0.0145	0.0328	0.0374
JUD SQUARE	0	110	0	110	140	0	4.5	632	57	43	360	332	272	250	0.0002	0.0004	0.0003	0.0007	0.0009
KING ST	0	30	0	30	38	0	4.5	172	57	43	98	91	74	68	0.0001	0.0001	0.0001	0.0002	0.0002
LANDOVER 25%	25	1410	470	1880	1799	600	7.5	17,994	57	43	10,256	9,452	7,737	7,131	0.0031	0.0110	0.0087	0.0197	0.0228
L'ENFANT PLAZA	0	296	0	296	378	0	4.5	1,700	57	43	969	893	731	674	0.0006	0.0010	0.0008	0.0019	0.0024
MCPHERSON SQ	0	52	0	52	66	0	4.5	299	57	43	170	157	128	118	0.0001	0.0002	0.0001	0.0003	0.0004
MEDICAL CENTER	0	14	0	14	18	0	4.5	80	57	43	46	42	35	32	0.0000	0.0000	0.0000	0.0001	0.0001
METRO CENTER	0	177	0	177	226	0	4.5	1,016	57	43	579	534	437	403	0.0003	0.0006	0.0005	0.0011	0.0014
MINNES	0	353	0	353	450	0	4.5	2,027	57	43	1,155	1,065	872	803	0.0007	0.0012	0.0010	0.0022	0.0029
NAT AIR	0	87	0	87	111	0	4.5	500	57	43	285	262	215	198	0.0002	0.0003	0.0002	0.0005	0.0007
NEW CARROL 50%	50	1049	1049	2097	1338	1338	7.5	20,071	57	43	11,440	10,543	8,630	7,954	0.0029	0.0123	0.0097	0.0220	0.0250
PRNTAGON	0	561	0	561	716	0	4.5	3,222	57	43	1,836	1,692	1,385	1,277	0.0010	0.0020	0.0016	0.0035	0.0046

SEASON 1 (Jan-Apr)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

														E M I S S I O N S						
LOCATION	OUTSID E MSA (%)	INSIDE MSA	2002		2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL	FREEWAY	ARTERIAL	Adj.Art VMT	FREEWAY	Adj.Fwy VMT	COLD START	RUNNING		TOTAL		
			OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate			%	VMT	Rate (gm/mile)		Arterial Rate (gm/mile)			Freeway Rate (gm/mile)	Total Running Emission (tones/day)			
					1.28	1.28						Wk Days = 83			0.8488	0.5288	0.5542			
COMMUTER RAIL LOTS												Seasonal adj = 0.9216								
PENTAGON CITY	0	381	0	381	486	0	4.5	2,188	57	43	1,247	1,149	941	867	0.0007	0.0013	0.0011	0.0024	0.0031	
POTOMAC AVE	0	533	0	533	680	0	4.5	3,061	57	43	1,745	1,608	1,316	1,213	0.0010	0.0019	0.0015	0.0034	0.0044	
ROCKVILLE	0	667	0	667	851	0	4.5	3,830	57	43	2,183	2,012	1,647	1,518	0.0012	0.0023	0.0019	0.0042	0.0054	
ROSSLYN	0	356	0	356	454	0	4.5	2,044	57	43	1,165	1,074	879	810	0.0007	0.0013	0.0010	0.0022	0.0029	
SHADY GROVE 10%	10	3903	434	4337	4981	553	7.5	41,510	57	43	23,661	21,806	17,849	16,450	0.0077	0.0254	0.0201	0.0455	0.0532	
SILVER SPRING	0	44	0	44	56	0	4.5	253	57	43	144	133	109	100	0.0001	0.0002	0.0001	0.0003	0.0004	
SMITH MALL	0	120	0	120	153	0	4.5	689	57	43	393	362	296	273	0.0002	0.0004	0.0003	0.0008	0.0010	
STADIUM ARM	0	976	0	976	1246	0	4.5	5,605	57	43	3,195	2,944	2,410	2,221	0.0018	0.0034	0.0027	0.0061	0.0080	
TAKOMA PK	0	146	0	146	186	0	4.5	838	57	43	478	440	361	332	0.0003	0.0005	0.0004	0.0009	0.0012	
TENLEYTON	0	17	0	17	22	0	4.5	98	57	43	56	51	42	39	0.0000	0.0001	0.0000	0.0001	0.0001	
TWINBROOK	0	1136	0	1136	1450	0	4.5	6,524	57	43	3,718	3,427	2,805	2,585	0.0021	0.0040	0.0032	0.0072	0.0093	
UNION STAT	0	378	0	378	482	0	4.5	2,171	57	43	1,237	1,140	933	860	0.0007	0.0013	0.0011	0.0024	0.0031	
VAN NESS	0	343	0	343	438	0	4.5	1,970	57	43	1,123	1,035	847	781	0.0006	0.0012	0.0010	0.0022	0.0028	
VIENNA 25%	25	2798	933	3731	3571	1190	7.5	35,710	57	43	20,355	18,759	15,355	14,151	0.0061	0.0219	0.0173	0.0392	0.0453	
VA SQUARE	0	642	0	642	819	0	4.5	3,687	57	43	2,101	1,937	1,585	1,461	0.0012	0.0023	0.0018	0.0040	0.0052	
WEST FALLS CHURCH	0	2183	0	2183	2786	0	4.5	12,536	57	43	7,146	6,585	5,391	4,968	0.0041	0.0077	0.0061	0.0137	0.0178	
WHITE FLINT	0	1633	0	1633	2084	0	4.5	9,378	57	43	5,345	4,926	4,032	3,716	0.0031	0.0057	0.0045	0.0103	0.0133	
WOODLEY	0	68	0	68	87	0	4.5	391	57	43	223	205	168	155	0.0001	0.0002	0.0002	0.0004	0.0006	
RHODE ISLAND 30%	30	266	114	380	339	145	7.5	3,637	57	43	2,073	1,911	1,564	1,441	0.0006	0.0022	0.0018	0.0040	0.0046	
BUS & CAR POOL LOTS																				
CARTER BARRON	0	798	0	798	1018	0	4.5	4,583	57	43	2,612	2,407	1,971	1,816	0.0015	0.0028	0.0022	0.0050	0.0065	
PG PLAZA	0	47	0	47	60	0	4.5	270	57	43	154	142	116	107	0.0001	0.0002	0.0001	0.0003	0.0004	
PENN MAR SHOPP.	0	100	0	100	128	0	4.5	574	57	43	327	302	247	228	0.0002	0.0004	0.0003	0.0006	0.0008	
CAP PLAZA	0	100	0	100	128	0	4.5	574	57	43	327	302	247	228	0.0002	0.0004	0.0003	0.0006	0.0008	
EASTOVER	0	100	0	100	128	0	4.5	574	57	43	327	302	247	228	0.0002	0.0004	0.0003	0.0006	0.0008	
FOUR MILE RUN	0	28	0	28	36	0	4.5	161	57	43	92	84	69	64	0.0001	0.0001	0.0001	0.0002	0.0002	
SPRINGFIELD MALL	0	580	0	580	740	0	4.5	3,331	57	43	1,899	1,750	1,432	1,320	0.0011	0.0020	0.0016	0.0037	0.0047	
SPRINGFIELD METH CH	0	48	0	48	61	0	4.5	276	57	43	157	145	119	109	0.0001	0.0002	0.0001	0.0003	0.0004	
FRED ARMORY	0	33	0	33	42	0	7.5	316	57	43	180	166	136	125	0.0001	0.0002	0.0002	0.0003	0.0004	
MYERSVILLE	0	65	0	65	83	0	7.5	622	57	43	355	327	268	247	0.0001	0.0004	0.0003	0.0007	0.0008	
ROSEMONT	0	45	0	45	57	0	7.5	431	57	43	245	226	185	171	0.0001	0.0003	0.0002	0.0005	0.0006	
URBANA	0	193	0	193	246	0	7.5	1,847	57	43	1,053	970	794	732	0.0004	0.0011	0.0009	0.0020	0.0024	
JEFFERSON	0	40	0	40	51	0	7.5	383	57	43	218	201	165	152	0.0001	0.0002	0.0002	0.0004	0.0005	
NORBECK RD	0	248	0	248	316	0	7.5	2,374	57	43	1,353	1,247	1,021	941	0.0005	0.0015	0.0011	0.0026	0.0031	
MONTROSE RD	0	650	0	650	829	0	7.5	6,221	57	43	3,546	3,268	2,675	2,465	0.0012	0.0038	0.0030	0.0068	0.0080	
BRIGG CHENNY 50%	50	215	215	430	274	274	7.5	4,116	57	43	2,346	2,162	1,770	1,631	0.0006	0.0025	0.0020	0.0045	0.0051	
COMUS ROAD	0	30	0	30	38	0	7.5	287	57	43	164	151	123	114	0.0001	0.0002	0.0001	0.0003	0.0004	
LAKEFOREST MALL	0	300	0	300	383	0	7.5	2,871	57	43	1,637	1,508	1,235	1,138	0.0006	0.0018	0.0014	0.0031	0.0037	
BURTONSVILLE	0	500	0	500	638	0	7.5	4,786	57	43	2,728	2,514	2,058	1,896	0.0009	0.0029	0.0023	0.0052	0.0062	
FORCEY MEM.	0	200	0	200	255	0	7.5	1,914	57	43	1,091	1,006	823	759	0.0004	0.0012	0.0009	0.0021	0.0025	
TECH ROAD	0	155	0	155	198	0	7.5	1,484	57	43	846	779	638	588	0.0003	0.0009	0.0007	0.0016	0.0019	
BELTWAY	0	265	0	265	338	0	7.5	2,536	57	43	1,446	1,332	1,091	1,005	0.0005	0.0016	0.0012	0.0028	0.0033	
LAUREL VAN DUSEN	0	62	0	62	79	0	7.5	593	57	43	338	312	255	235	0.0001	0.0004	0.0003	0.0007	0.0008	
ACCOKEEK	0	450	0	450	574	0	7.5	4,307	57	43	2,455	2,263	1,852	1,707	0.0008	0.0026	0.0021	0.0047	0.0056	
ABC DRIVE IN	0	100	0	100	128	0	7.5	957	57	43	546	503	412	379	0.0002	0.0006	0.0005	0.0010	0.0012	
BOWIE 20%	20	526	131	657	671	168	7.5	6,288	57	43	3,584	3,303	2,704	2,492	0.0011	0.0039	0.0030	0.0069	0.0080	
CLINTON 50%	50	212	212	424	271	271	7.5	4,058	57	43	2,313	2,132	1,745	1,608	0.0006	0.0025	0.0020	0.0045	0.0050	
OXON HILL 20%	20	519	130	649	663	166	7.5	6,212	57	43	3,541	3,263	2,671	2,462	0.0011	0.0038	0.0030	0.0068	0.0079	
EQUESTRIAN CENTER 50%	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,508	1,235	1,138	0.0004	0.0018	0.0014	0.0031	0.0036	
BOWIE MARKET PLACE	0	50	0	50	64	0	7.5	479	57	43	273	251	206	190	0.0001	0.0003	0.0002	0.0005	0.0006	
FT.WASHINGTON	0	412	0	412	526	0	7.5	3,943	57	43	2,248	2,071	1,696	1,563	0.0008	0.0024	0.0019	0.0043	0.0051	
MONTPELIER REC PARK	0	70	0	70	89	0	7.5	670	57	43	382	352	288	266	0.0001	0.0004	0.0003	0.0007	0.0009	
RESTON	0	1547	0	1547	1974	0	7.5	14,806	57	43	8,440	7,778	6,367	5,868	0.0029	0.0091	0.0072	0.0162	0.0191	
GREENBRIAR	0	55	0	55	70	0	7.5	526	57	43	300	277	226	209	0.0001	0.0003	0.0003	0.0006	0.0007	
FAIR OAKS	0	150	0	150	191	0	7.5	1,436	57	43	818	754	617	569	0.0003	0.0009	0.0007	0.0016	0.0019	
ROLLING VALLEY	0	628	0	628	801	0	7.5	6,011	57	43	3,426	3,157	2,585	2,382	0.0012	0.0037	0.0029	0.0066	0.0078	
SPRINGFIELD PLAZA	0	230	0	230	294	0	7.5	2,201	57	43	1,255	1,156	947	872	0.0004	0.0013	0.0011	0.0024	0.0028	
FAIRLANES BOWL	0	35	0	35	45	0	7.5	335	57	43	191	176	144	133	0.0001	0.0002	0.0002	0.0004	0.0004	

SEASON 1 (Jan-Apr)
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2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

														E M I S S I O N S						
LOCATION	OUTSID E MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL	FREEWAY	ARTERIAL	Adj.Art VMT	FREEWAY	Adj.Fwy VMT	COLD START	RUNNING			TOTAL	
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate			%	%	VMT		Rate (gm/mile)			Rate (gm/mile)	Rate (gm/mile)	Total Running Emission (tons/day)		
					1.28	1.28						Wk Days =	83		0.8488	0.5288	0.5542			
COMMUTER RAIL LOTS												Seasonal adj =	0.9216							
NOTTOWAY PARK	0	14	0	14	18	0	7.5	134	57	43	76	70	58	53	0.0000	0.0001	0.0001	0.0001	0.0002	
HORNER RD	0	2397	0	2397	3059	0	7.5	22,942	57	43	13,077	12,052	9,865	9,092	0.0045	0.0140	0.0111	0.0252	0.0296	
LAKE RIDGE	0	555	0	555	708	0	7.5	5,312	57	43	3,028	2,790	2,284	2,105	0.0010	0.0033	0.0026	0.0058	0.0069	
MINNIEVILLE RD 40%	40	336	224	560	429	286	7.5	5,360	57	43	3,055	2,816	2,305	2,124	0.0008	0.0033	0.0026	0.0059	0.0067	
GORDON BLVD	0	156	0	156	199	0	7.5	1,493	57	43	851	784	642	592	0.0003	0.0009	0.0007	0.0016	0.0019	
HILLENDALE	0	248	0	248	316	0	7.5	2,374	57	43	1,353	1,247	1,021	941	0.0005	0.0015	0.0011	0.0026	0.0031	
POTOMAC MILLS	0	946	0	946	1207	0	7.5	9,054	57	43	5,161	4,756	3,893	3,588	0.0018	0.0055	0.0044	0.0099	0.0117	
List of new lots to be added in Conformity Document list																				
PARK-AND-RIDE LOTS - MARYLAND																				
PARK-AND-RIDE LOTS - MARYLAND																				
CHARLES COUNTY																				
301 Park & Ride	25	287	96	383	367	122	7.5	3,666	57	43	2,089	1,926	1,576	1,453	0.0006	0.0022	0.0018	0.0040	0.0046	
Charles County Government Bl	25	26	9	35	33	11	7.5	335	57	43	191	176	144	133	0.0001	0.0002	0.0002	0.0004	0.0004	
Food Lion Shopping Center	25	38	13	50	48	16	7.5	479	57	43	273	251	206	190	0.0001	0.0003	0.0002	0.0005	0.0006	
La Plata Armory	25	15	5	20	19	6	7.5	191	57	43	109	101	82	76	0.0000	0.0001	0.0001	0.0002	0.0002	
Laurel Springs Regional Park	25	38	13	50	48	16	7.5	479	57	43	273	251	206	190	0.0001	0.0003	0.0002	0.0005	0.0006	
Life Wesleyan Church	25	38	13	50	48	16	7.5	479	57	43	273	251	206	190	0.0001	0.0003	0.0002	0.0005	0.0006	
Mattawoman-Beantown Rd	25	435	145	580	555	185	7.5	5,551	57	43	3,164	2,916	2,387	2,200	0.0009	0.0034	0.0027	0.0061	0.0070	
Smallwood Village	25	75	25	100	96	32	7.5	957	57	43	546	503	412	379	0.0002	0.0006	0.0005	0.0010	0.0012	
St. Charles Towne	25	263	88	350	335	112	7.5	3,350	57	43	1,909	1,760	1,440	1,328	0.0006	0.0021	0.0016	0.0037	0.0042	
PARK-AND-RIDE LOTS - MARYLAND																				
FREDERICK COUNTY																				
Frederick (north)	25	123	41	164	157	52	7.5	1,570	57	43	895	825	675	622	0.0003	0.0010	0.0008	0.0017	0.0020	
Frederick (south)	25	173	58	230	220	73	7.5	2,201	57	43	1,255	1,156	947	872	0.0004	0.0013	0.0011	0.0024	0.0028	
Monacacy Marcs	25	600	200	800	766	255	7.5	7,657	57	43	4,364	4,022	3,292	3,034	0.0013	0.0047	0.0037	0.0084	0.0097	
PARK-AND-RIDE LOTS - MARYLAND																				
MONTGOMERY COUNTY																				
Colesville	0	190	0	190	242	0	7.5	1,819	57	43	1,037	955	782	721	0.0004	0.0011	0.0009	0.0020	0.0023	
Damascus	50	0	0	0	0	0	7.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Gaithersburg	50	259	259	517	330	330	7.5	4,948	57	43	2,821	2,599	2,128	1,961	0.0007	0.0030	0.0024	0.0054	0.0062	
Gaithersburg	50	175	175	350	223	223	7.5	3,350	57	43	1,909	1,760	1,440	1,328	0.0005	0.0021	0.0016	0.0037	0.0042	
Germantown Town	50	0	0	0	0	0	7.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Greencastle	50	75	75	150	96	96	7.5	1,436	57	43	818	754	617	569	0.0002	0.0009	0.0007	0.0016	0.0018	
Milestone Shopping	50	88	88	175	112	112	7.5	1,675	57	43	955	880	720	664	0.0002	0.0010	0.0008	0.0018	0.0021	
PARK-AND-RIDE LOTS - MAYLAND																				
PRINCE GEORGE'S COUNTY																				
Hampton Mall	0	100	0	100	128	0	4.5	574	57	43	327	302	247	228	0.0002	0.0004	0.0003	0.0006	0.0008	
Laurel (south)	25	513	171	684	655	218	7.5	6,547	57	43	3,732	3,439	2,815	2,594	0.0011	0.0040	0.0032	0.0072	0.0083	
PARK-AND-RIDE LOTS - VIRGINIA																				
ARLINGTON COUNTY																				
Ballston Public Parking Garage	25	375	125	500	479	160	7.5	4,786	57	43	2,728	2,514	2,058	1,896	0.0008	0.0029	0.0023	0.0052	0.0061	
Washington-Lee	50	178	178	356	227	227	7.5	3,407	57	43	1,942	1,790	1,465	1,350	0.0005	0.0021	0.0016	0.0037	0.0042	
PARK-AND-RIDE LOTS - VIRGINIA																				
FAIRFAX COUNTY																				
American Legion	50	50	50	100	64	64	7.5	957	57	43	546	503	412	379	0.0001	0.0006	0.0005	0.0010	0.0012	
Canterbury Woods Pk	50	17	17	34	22	22	7.5	325	57	43	185	171	140	129	0.0000	0.0002	0.0002	0.0004	0.0004	
Centreville	50	185	185	370	236	236	7.5	3,541	57	43	2,019	1,860	1,523	1,403	0.0005	0.0022	0.0017	0.0039	0.0044	
Centreville United Methodist Ch	50	74	74	147	94	94	7.5	1,407	57	43	802	739	605	558	0.0002	0.0009	0.0007	0.0015	0.0017	
Fairfax County Government Ce	50	85	85	170	108	108	7.5	1,627	57	43	927	855	700	645	0.0002	0.0010	0.0008	0.0018	0.0020	
Greenbriar Park	50	28	28	55	35	35	7.5	526	57	43	300	277	226	209	0.0001	0.0003	0.0003	0.0006	0.0007	
Herndon-Monroe	50	873	873	1,745	1113	1113	7.5	16,702	57	43	9,520	8,774	7,182	6,619	0.0024	0.0102	0.0081	0.0183	0.0208	
Michael's	50	100	100	200	128	128	7.5	1,914	57	43	1,091	1,006	823	759	0.0003	0.0012	0.0009	0.0021	0.0024	
Parkwood Baptist	50	9	9	18	11	11	7.5	172	57	43	98	91	74	68	0.0000	0.0001	0.0001	0.0002	0.0002	
South Run District Pk	50	170	170	340	217	217	7.5	3,254	57	43	1,855	1,709	1,399	1,290	0.0005	0.0020	0.0016	0.0036	0.0040	
St Paul Chung Catholic Church	50	50	50	100	64	64	7.5	957	57	43	546	503	412	379	0.0001	0.0006	0.0005	0.0010	0.0012	
Stringfellow Rd	50	181	181	361	230	230	7.5	3,455	57	43	1,969	1,815	1,486	1,369	0.0005	0.0021	0.0017	0.0038	0.0043	
Sully Station	50	70	70	140	89	89	7.5	1,340	57	43	764	704	576	531	0.0002	0.0008	0.0006	0.0015	0.0017	

SEASON 1 (Jan-Apr)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

														E M I S S I O N S						
LOCATION	OUTSID E MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL	FREEWAY	ARTERIAL	Adj.Art	FREEWAY	Adj.Fwy VMT	COLD START	RUNNING		Total Running Emission (tones/day)	TOTAL (tons/day)	
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate			%		VMT									
					1.28	1.28						Wk Days = 83			0.8488	0.5288	0.5542			
COMMUTER RAIL LOTS												Seasonal adj = 0.9216								
Sydenstricker Rd	50	84	84	167	107	107	7.5	1,598	57	43	911	840	687	633	0.0002	0.0010	0.0008	0.0018	0.0020	
Wakefield Chapel Pk	50	25	25	50	32	32	7.5	479	57	43	273	251	206	190	0.0001	0.0003	0.0002	0.0005	0.0006	
PARK-AND-RIDE LOTS - VIRGINIA																				
LOUDOUN COUNTY																				
Ashburn Farm	50	10	10	20	13	13	7.5	191	57	43	109	101	82	76	0.0000	0.0001	0.0001	0.0002	0.0002	
Ashburn Village	50	20	20	40	26	26	7.5	383	57	43	218	201	165	152	0.0001	0.0002	0.0002	0.0004	0.0005	
Cascades	50	28	28	55	35	35	7.5	526	57	43	300	277	226	209	0.0001	0.0003	0.0003	0.0006	0.0007	
Dulles North Transit	50	375	375	750	479	479	7.5	7,178	57	43	4,092	3,771	3,087	2,845	0.0011	0.0044	0.0035	0.0079	0.0089	
Hamilton	50	25	25	50	32	32	7.5	479	57	43	273	251	206	190	0.0001	0.0003	0.0002	0.0005	0.0006	
Innovation Avenue	50	38	38	75	48	48	7.5	718	57	43	409	377	309	284	0.0001	0.0004	0.0003	0.0008	0.0009	
Leesburg	50	25	25	50	32	32	7.5	479	57	43	273	251	206	190	0.0001	0.0003	0.0002	0.0005	0.0006	
Leesburg Kohls	50	600	600	1200	766	766	7.5	11,485	57	43	6,547	6,033	4,939	4,551	0.0017	0.0070	0.0056	0.0126	0.0143	
Purcellville	50	18	18	35	22	22	7.5	335	57	43	191	176	144	133	0.0000	0.0002	0.0002	0.0004	0.0004	
Sterling Park SC	50	23	23	45	29	29	7.5	431	57	43	245	226	185	171	0.0001	0.0003	0.0002	0.0005	0.0005	
Sterling Shaw Rd	50	24	24	48	31	31	7.5	459	57	43	262	241	198	182	0.0001	0.0003	0.0002	0.0005	0.0006	
PARK-AND-RIDE LOTS - VIRGINIA																				
PRINCE WILLIAM COUNTY																				
Brittany	50	48	48	95	61	61	7.5	909	57	43	518	478	391	360	0.0001	0.0006	0.0004	0.0010	0.0011	
Dale City	50	294	294	587	375	375	7.5	5,618	57	43	3,202	2,951	2,416	2,226	0.0008	0.0034	0.0027	0.0062	0.0070	
Harbor Drive	50	100	100	200	128	128	7.5	1,914	57	43	1,091	1,006	823	759	0.0003	0.0012	0.0009	0.0021	0.0024	
Lindendale	50	108	108	216	138	138	7.5	2,067	57	43	1,178	1,086	889	819	0.0003	0.0013	0.0010	0.0023	0.0026	
Montclair	50	25	25	50	32	32	7.5	479	57	43	273	251	206	190	0.0001	0.0003	0.0002	0.0005	0.0006	
PRTC Transit Center	50	93	93	185	118	118	7.5	1,771	57	43	1,009	930	761	702	0.0003	0.0011	0.0009	0.0019	0.0022	
Tackett's Mill	50	85	85	169	108	108	7.5	1,618	57	43	922	850	696	641	0.0002	0.0010	0.0008	0.0018	0.0020	
Triangle	50	15	15	29	19	19	7.5	278	57	43	158	146	119	110	0.0000	0.0002	0.0001	0.0003	0.0003	
I-95 / Rt 123	50	282	282	563	359	359	7.5	5,389	57	43	3,071	2,831	2,317	2,135	0.0008	0.0033	0.0026	0.0059	0.0067	
US 1 / VA 234	50	137	137	274	175	175	7.5	2,622	57	43	1,495	1,378	1,128	1,039	0.0004	0.0016	0.0013	0.0029	0.0033	
MARC TRAIN COMMUTER LOTS																				
College Park	25	431	144	574	549	183	7.5	5,494	57	43	3,131	2,886	2,362	2,177	0.0009	0.0034	0.0027	0.0060	0.0070	
Frederick	0	0	0	0	0	0	7.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Greenbelt	60	1346	2018	3364	1717	2576	7.5	32,197	57	43	18,352	16,914	13,845	12,759	0.0044	0.0197	0.0156	0.0353	0.0397	
Harpers Ferry		98	0	98	125	0	7.5	938	57	43	535	493	403	372	0.0002	0.0006	0.0005	0.0010	0.0012	
Muirkirk	60	260	390	650	332	498	7.5	6,221	57	43	3,546	3,268	2,675	2,465	0.0009	0.0038	0.0030	0.0068	0.0077	
Seabrook	0	264	0	264	337	0	4.5	1,516	57	43	864	796	652	601	0.0005	0.0009	0.0007	0.0017	0.0022	
Silver Spring	0	0	0	0	0	0	4.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Union Station	0	781	0	781	997	0	7.5	7,475	57	43	4,261	3,927	3,214	2,962	0.0015	0.0046	0.0036	0.0082	0.0097	
VIRGINIA RAILWAY EXPRESS COMMUTER LOTS																				
Backlick Road	50	110	110	220	140	140	7.5	2,106	57	43	1,200	1,106	905	834	0.0003	0.0013	0.0010	0.0023	0.0026	
Broad Run	50	198	198	396	253	253	7.5	3,790	57	43	2,160	1,991	1,630	1,502	0.0006	0.0023	0.0018	0.0042	0.0047	
Brooke	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,508	1,235	1,138	0.0004	0.0018	0.0014	0.0031	0.0036	
Burke Center	50	275	275	550	351	351	7.5	5,264	57	43	3,001	2,765	2,264	2,086	0.0008	0.0032	0.0025	0.0058	0.0065	
Franconia/Springfield (operated	50	1900	1900	3800	2425	2425	7.5	36,370	57	43	20,731	19,106	15,639	14,413	0.0053	0.0223	0.0176	0.0399	0.0452	
Leeland Road	50	326	326	652	416	416	7.5	6,240	57	43	3,557	3,278	2,683	2,473	0.0009	0.0038	0.0030	0.0068	0.0078	
Lorton	50	100	100	200	128	128	7.5	1,914	57	43	1,091	1,006	823	759	0.0003	0.0012	0.0009	0.0021	0.0024	
Manassas	50	187	187	374	239	239	7.5	3,580	57	43	2,040	1,880	1,539	1,419	0.0005	0.0022	0.0017	0.0039	0.0045	
Manassas Park	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,508	1,235	1,138	0.0004	0.0018	0.0014	0.0031	0.0036	
Quantico	50	109	109	217	138	138	7.5	2,077	57	43	1,184	1,091	893	823	0.0003	0.0013	0.0010	0.0023	0.0026	
Rippon	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,508	1,235	1,138	0.0004	0.0018	0.0014	0.0031	0.0036	
Rolling Road	50	185	185	370	236	236	7.5	3,541	57	43	2,019	1,860	1,523	1,403	0.0005	0.0022	0.0017	0.0039	0.0044	
Woodbridge	50	294	294	588	375	375	7.5	5,628	57	43	3,208	2,956	2,420	2,230	0.0008	0.0034	0.0027	0.0062	0.0070	
METRO RAIL PARKING LOTS																				
Anacostia	25	861	287	1148	1099	366	7.5	10,988	57	43	6,263	5,772	4,725	4,354	0.0019	0.0067	0.0053	0.0120	0.0139	
Branch Avenue	50	1611	1611	3222	2056	2056	7.5	30,838	57	43	17,578	16,200	13,260	12,221	0.0045	0.0189	0.0149	0.0338	0.0383	
Capitol Heights	50	194	194	387	247	247	7.5	3,704	57	43	2,111	1,946	1,593	1,468	0.0005	0.0023	0.0018	0.0041	0.0046	
College Park	25	465	155	620	593	198	7.5	5,934	57	43	3,382	3,117	2,552	2,352	0.0010	0.0036	0.0029	0.0065	0.0075	
Congress Heights	0	66	0	66	84	0	4.5	379	57	43	216	199	163	150	0.0001	0.0002	0.0002	0.0004	0.0005	
Deanwood	0	194	0	194	248	0	7.5	1,857	57	43	1,058	975	798	736	0.0004	0.0011	0.0009	0.0020	0.0024	
East Falls Church	50	221	221	442	282	282	7.5	4,230	57	43	2,411	2,222	1,819	1,676	0.0006	0.0026	0.0020	0.0046	0.0053	
Forest Glen	50	329	329	658	420	420	7.5	6,298	57	43	3,590	3,308	2,708	2,496	0.0009	0.0039	0.0030	0.0069	0.0078	
Franconia - Springfield	50	1987	1987	3973	2535	2535	4.5	22,816	57	43	13,005	11,985	9,811	9,042	0.0056	0.0140	0.0110	0.0250	0.0306	

SEASON 1 (Jan-Apr)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	OUTSID E MSA (%)	2002			2010		AVERAGE	2010	ARTERIAL	FREEWAY	ARTERIAL	Adj.Art	FREEWAY	Adj.Fwy VMT	E M I S S I O N S				
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate	TRIP LENGTH	VMT	%		VMT				COLD START	RUNNING		TOTAL	
									Rate (gm/mile)	Rate (gm/mile)						Rate (gm/mile)	Total Running Emission (tones/day)		(tons/day)
					1.28	1.28						Wk Days =	83		0.8488	0.5288	0.5542		
COMMUTER RAIL LOTS												Seasonal adj =	0.9216						
Glenmont	50	925	925	1850	1180	1180	4.5	10,624	57	43	6,056	5,581	4,568	4,210	0.0026	0.0065	0.0051	0.0117	0.0142
Greenbelt	50	1783	1783	3565	2275	2275	7.5	34,121	57	43	19,449	17,924	14,672	13,522	0.0050	0.0209	0.0165	0.0374	0.0424
Naylor Road	50	216	216	431	275	275	7.5	4,125	57	43	2,351	2,167	1,774	1,635	0.0006	0.0025	0.0020	0.0045	0.0051
Prince George's Plaza	25	927	309	1236	1183	394	7.5	11,830	57	43	6,743	6,214	5,087	4,688	0.0020	0.0072	0.0057	0.0130	0.0150
Southern Avenue	50	1090	1090	2180	1391	1391	4.5	12,519	57	43	7,136	6,576	5,383	4,961	0.0031	0.0077	0.0061	0.0137	0.0168
Suitland	50	1033	1033	2065	1318	1318	4.5	11,859	57	43	6,759	6,229	5,099	4,699	0.0029	0.0073	0.0057	0.0130	0.0159
Van Dorn Street	50	204	204	407	260	260	4.5	2,337	57	43	1,332	1,228	1,005	926	0.0006	0.0014	0.0011	0.0026	0.0031
West Hyattsville	25	453	151	604	578	193	7.5	5,781	57	43	3,295	3,037	2,486	2,291	0.0010	0.0035	0.0028	0.0063	0.0073
Wheaton	25	759	253	1012	969	323	7.5	9,686	57	43	5,521	5,088	4,165	3,838	0.0017	0.0059	0.0047	0.0106	0.0123
				108,749											0.1754	0.5588	0.4418	1.0006	1.175987
Seasonal Total (tons/season) =																			97.61

Bold figures: New numbers taken from P & R directory
Figures in bracket: Carry forward figures from conformity doc.

Park lot Growth Rate	
Transit trips 2010	1161947
Transit trips 2000	863783
Annual growth rate	0.03451839
Growth factor (2002-2010)	1.27614713

SEASON 2 (May-Sep)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION															E M I S S I O N S						
	OUTSIDE MSA (%)	INSIDE MSA	2002		2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL %	FREEWAY %	ARTERIAL VMT	Adj.Art VMT	FREEWAY VMT	Adj.Fwy VMT	COLD START Rate (gm/mile)	RUNNING		Total Running Emission (tones/day)	TOTAL (tons/day)		
			OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate										Arterial	Freeway				
					1.28	1.28					Wk Days = 107			0.5979	0.3747	0.3926					
COMMUTER RAIL LOTS											Seasonal adj = 0.9873										
BRUNSWICK 25%	25	305	102	407	390	130	7.5	3,895	57	43	2,220	2,192	1,675	1,654	0.0005	0.0018	0.0014	0.0032	0.0037		
PT OF ROCKS 25%	25	204	68	272	260	87	7.5	2,603	57	43	1,484	1,465	1,119	1,105	0.0003	0.0012	0.0010	0.0022	0.0025		
DICKERSON	0	15	0	15	19	0	7.5	144	57	43	82	81	62	61	0.0000	0.0001	0.0001	0.0001	0.0001		
BARNESVILLE	0	46	0	46	59	0	7.5	440	57	43	251	248	189	187	0.0001	0.0002	0.0002	0.0004	0.0004		
GERMANTOWN	0	386	0	386	493	0	7.5	3,694	57	43	2,106	2,079	1,589	1,568	0.0005	0.0017	0.0014	0.0031	0.0036		
MET GROVE	0	352	0	352	449	0	7.5	3,369	57	43	1,920	1,896	1,449	1,430	0.0005	0.0016	0.0012	0.0028	0.0033		
WAS GROVE	0	15	0	15	19	0	7.5	144	57	43	82	81	62	61	0.0000	0.0001	0.0001	0.0001	0.0001		
GARRETT PARK	0	22	0	22	28	0	7.5	211	57	43	120	118	91	89	0.0000	0.0001	0.0001	0.0002	0.0002		
BOWIE 50%	50	188	188	375	239	239	7.5	3,589	57	43	2,046	2,020	1,543	1,524	0.0004	0.0017	0.0013	0.0030	0.0034		
SEABROOK 15%	15	224	40	264	286	51	7.5	2,527	57	43	1,440	1,422	1,087	1,073	0.0003	0.0012	0.0009	0.0021	0.0024		
KENSINGTON	0	45	0	45	57	0	7.5	431	57	43	245	242	185	183	0.0001	0.0002	0.0002	0.0004	0.0004		
LAUREL 30%	30	209	90	299	267	114	7.5	2,862	57	43	1,631	1,610	1,231	1,215	0.0003	0.0013	0.0011	0.0024	0.0027		
GAITHESBURG	0	280	0	280	357	0	7.5	2,680	57	43	1,528	1,508	1,152	1,138	0.0004	0.0012	0.0010	0.0022	0.0026		
BERWYN HEIGHTS	0	30	0	30	38	0	4.5	172	57	43	98	97	74	73	0.0000	0.0001	0.0001	0.0001	0.0002		
RIVERDALE	0	65	0	65	83	0	4.5	373	57	43	213	210	161	158	0.0001	0.0002	0.0001	0.0003	0.0004		
METRO RAIL LOTS																					
ADDISON ROAD 40%	40	791	527	1318	1009	673	7.5	12,615	57	43	7,190	7,099	5,424	5,355	0.0014	0.0059	0.0046	0.0105	0.0119		
ARCHIVES	0	12	0	12	15	0	4.5	69	57	43	39	39	30	29	0.0000	0.0000	0.0000	0.0001	0.0001		
ARLING	0	10	0	10	13	0	4.5	57	57	43	33	32	25	24	0.0000	0.0000	0.0000	0.0000	0.0001		
BALLSTON	0	1175	0	1175	1499	0	4.5	6,748	57	43	3,846	3,797	2,901	2,865	0.0015	0.0031	0.0025	0.0056	0.0072		
BENN.RD	0	520	0	520	664	0	4.5	2,986	57	43	1,702	1,681	1,284	1,268	0.0007	0.0014	0.0011	0.0025	0.0032		
BETH	0	395	0	395	504	0	4.5	2,268	57	43	1,293	1,277	975	963	0.0005	0.0011	0.0008	0.0019	0.0024		
BRADD RD	0	10	0	10	13	0	4.5	57	57	43	33	32	25	24	0.0000	0.0000	0.0000	0.0000	0.0001		
BROOKLAND	0	27	0	27	34	0	4.5	155	57	43	88	87	67	66	0.0000	0.0001	0.0001	0.0001	0.0002		
CHEVERLY	0	557	0	557	711	0	4.5	3,199	57	43	1,823	1,800	1,375	1,358	0.0007	0.0015	0.0012	0.0027	0.0034		
CLARENDON	0	554	0	554	707	0	4.5	3,181	57	43	1,813	1,790	1,368	1,351	0.0007	0.0015	0.0012	0.0026	0.0034		
CLEVELAND PK	0	366	0	366	467	0	4.5	2,102	57	43	1,198	1,183	904	892	0.0005	0.0010	0.0008	0.0017	0.0022		
COURT HOUSE	0	256	0	256	327	0	4.5	1,470	57	43	838	827	632	624	0.0003	0.0007	0.0005	0.0012	0.0016		
CRYSTAL CITY	0	347	0	347	443	0	4.5	1,993	57	43	1,136	1,121	857	846	0.0005	0.0009	0.0007	0.0017	0.0021		
DEANWOOD	0	194	0	194	248	0	4.5	1,114	57	43	635	627	479	473	0.0003	0.0005	0.0004	0.0009	0.0012		
DUN LORING 10%	10	1220	136	1355	1556	173	4.5	7,781	57	43	4,435	4,379	3,346	3,303	0.0017	0.0036	0.0029	0.0065	0.0082		
DUPONT CIRCLE	0	165	0	165	211	0	4.5	948	57	43	540	533	407	402	0.0002	0.0004	0.0003	0.0008	0.0010		
EASTERN MKT	0	178	0	178	227	0	4.5	1,022	57	43	583	575	440	434	0.0002	0.0005	0.0004	0.0009	0.0011		
EAST FALLS CH	0	442	0	442	564	0	4.5	2,538	57	43	1,447	1,428	1,091	1,078	0.0006	0.0012	0.0009	0.0021	0.0027		
EIS	0	352	0	352	449	0	4.5	2,021	57	43	1,152	1,138	869	858	0.0005	0.0009	0.0007	0.0017	0.0021		
FARRAGUT NORTH	0	102	0	102	130	0	4.5	586	57	43	334	330	252	249	0.0001	0.0003	0.0002	0.0005	0.0006		
FARRAGUT WEST	0	221	0	221	282	0	4.5	1,269	57	43	723	714	546	539	0.0003	0.0006	0.0005	0.0011	0.0013		
FEDERAL CENTER	0	75	0	75	96	0	4.5	431	57	43	245	242	185	183	0.0001	0.0002	0.0002	0.0004	0.0005		
FEDERAL TRI	0	54	0	54	69	0	4.5	310	57	43	177	175	133	132	0.0001	0.0001	0.0001	0.0003	0.0003		
FOGGY	0	102	0	102	130	0	4.5	586	57	43	334	330	252	249	0.0001	0.0003	0.0002	0.0005	0.0006		
FORT TROTTER	0	445	0	445	568	0	4.5	2,555	57	43	1,457	1,438	1,099	1,085	0.0006	0.0012	0.0009	0.0021	0.0027		
FRH.HEIGHTS	0	679	0	679	867	0	4.5	3,899	57	43	2,223	2,194	1,677	1,655	0.0009	0.0018	0.0014	0.0032	0.0041		
GALLERY PLACE	0	124	0	124	158	0	4.5	712	57	43	406	401	306	302	0.0002	0.0003	0.0003	0.0006	0.0008		
GROSVENOR	0	716	0	716	914	0	4.5	4,112	57	43	2,344	2,314	1,768	1,746	0.0009	0.0019	0.0015	0.0034	0.0044		
HUNT NORTH 40%	40	1873	1249	3122	2390	1594	7.5	29,881	57	43	17,032	16,816	12,849	12,686	0.0033	0.0139	0.0110	0.0249	0.0282		
JUD SQUARE	0	110	0	110	140	0	4.5	632	57	43	360	355	272	268	0.0001	0.0003	0.0002	0.0005	0.0007		
KING ST	0	30	0	30	38	0	4.5	172	57	43	98	97	74	73	0.0000	0.0001	0.0001	0.0001	0.0002		
LANDOVER 25%	25	1410	470	1880	1799	600	7.5	17,994	57	43	10,256	10,126	7,737	7,639	0.0022	0.0084	0.0066	0.0150	0.0171		
L'ENFANT PLAZA	0	296	0	296	378	0	4.5	1,700	57	43	969	957	731	722	0.0004	0.0008	0.0006	0.0014	0.0018		
MCPHERSON SQ	0	52	0	52	66	0	4.5	299	57	43	170	168	128	127	0.0001	0.0001	0.0001	0.0002	0.0003		
MEDICAL CENTER	0	14	0	14	18	0	4.5	80	57	43	46	45	35	34	0.0000	0.0000	0.0000	0.0001	0.0001		
METRO CENTER	0	177	0	177	226	0	4.5	1,016	57	43	579	572	437	432	0.0002	0.0005	0.0004	0.0008	0.0011		
MINNES	0	353	0	353	450	0	4.5	2,027	57	43	1,155	1,141	872	861	0.0005	0.0009	0.0007	0.0017	0.0022		
NAT AIR	0	87	0	87	111	0	4.5	500	57	43	285	281	215	212	0.0001	0.0002	0.0002	0.0004	0.0005		
NEW CARROL 50%	50	1049	1049	2097	1338	1338	7.5	20,071	57	43	11,440	11,295	8,630	8,521	0.0021	0.0093	0.0074	0.0167	0.0188		
PRNTAGON	0	561	0	561	716	0	4.5	3,222	57	43	1,836	1,813	1,385	1,368	0.0007	0.0015	0.0012	0.0027	0.0034		

SEASON 2 (May-Sep)
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LOCATION	2002				2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL VMT	FREEWAY VMT	ARTERIAL VMT	Adj.Art VMT	FREEWAY VMT	Adj.Fwy VMT	COLD START Rate (gm/mile)	E M I S S I O N S			TOTAL (tons/day)
	OUTSIDE MSA (%)	INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate										Arterial Rate (gm/mile)	Freeway Rate (gm/mile)	Total Running Emission (tones/day)	
				1.28	1.28						Wk Days = 107	0.5979	0.3747	0.3926					
COMMUTER RAIL LOTS											Seasonal adj = 0.9873								
PENTAGON CITY	0	381	0	381	486	0	4.5	2,188	57	43	1,247	1,231	941	929	0.0005	0.0010	0.0008	0.0018	0.0023
POTOMAC AVE	0	533	0	533	680	0	4.5	3,061	57	43	1,745	1,723	1,316	1,299	0.0007	0.0014	0.0011	0.0025	0.0033
ROCKVILLE	0	667	0	667	851	0	4.5	3,830	57	43	2,183	2,156	1,647	1,626	0.0009	0.0018	0.0014	0.0032	0.0041
ROSSLYN	0	356	0	356	454	0	4.5	2,044	57	43	1,165	1,151	879	868	0.0005	0.0010	0.0008	0.0017	0.0022
SHADY GROVE 10%	10	3903	434	4337	4981	553	7.5	41,510	57	43	23,661	23,360	17,849	17,623	0.0054	0.0193	0.0153	0.0346	0.0400
SILVER SPRING	0	44	0	44	56	0	4.5	253	57	43	144	142	109	107	0.0001	0.0001	0.0001	0.0002	0.0003
SMITH MALL	0	120	0	120	153	0	4.5	689	57	43	393	388	296	293	0.0002	0.0003	0.0003	0.0006	0.0007
STADIUM ARM	0	976	0	976	1246	0	4.5	5,605	57	43	3,195	3,154	2,410	2,379	0.0013	0.0026	0.0021	0.0047	0.0060
TAKOMA PK	0	146	0	146	186	0	4.5	838	57	43	478	472	361	356	0.0002	0.0004	0.0003	0.0007	0.0009
TENLEYTON	0	17	0	17	22	0	4.5	98	57	43	56	55	42	41	0.0000	0.0000	0.0000	0.0001	0.0001
TWINBROOK	0	1136	0	1136	1450	0	4.5	6,524	57	43	3,718	3,671	2,805	2,770	0.0015	0.0030	0.0024	0.0054	0.0069
UNION STAT	0	378	0	378	482	0	4.5	2,171	57	43	1,237	1,222	933	922	0.0005	0.0010	0.0008	0.0018	0.0023
VAN NESS	0	343	0	343	438	0	4.5	1,970	57	43	1,123	1,108	847	836	0.0005	0.0009	0.0007	0.0016	0.0021
VIENNA 25%	25	2798	933	3731	3571	1190	7.5	35,710	57	43	20,355	20,096	15,355	15,160	0.0043	0.0166	0.0131	0.0297	0.0340
VA SQUARE	0	642	0	642	819	0	4.5	3,687	57	43	2,101	2,075	1,585	1,565	0.0008	0.0017	0.0014	0.0031	0.0039
WEST FALLS CHURCH	0	2183	0	2183	2786	0	4.5	12,536	57	43	7,146	7,055	5,391	5,322	0.0029	0.0058	0.0046	0.0104	0.0133
WHITE FLINT	0	1633	0	1633	2084	0	4.5	9,378	57	43	5,345	5,277	4,032	3,981	0.0022	0.0044	0.0034	0.0078	0.0100
WOODLEY	0	68	0	68	87	0	4.5	391	57	43	223	220	168	166	0.0001	0.0002	0.0001	0.0003	0.0004
RHODE ISLAND 30%	30	266	114	380	339	145	7.5	3,637	57	43	2,073	2,047	1,564	1,544	0.0004	0.0017	0.0013	0.0030	0.0035
BUS & CAR POOL LOTS																			
CARTER BARRON	0	798	0	798	1018	0	4.5	4,583	57	43	2,612	2,579	1,971	1,946	0.0011	0.0021	0.0017	0.0038	0.0049
PG PLAZA	0	47	0	47	60	0	4.5	270	57	43	154	152	116	115	0.0001	0.0001	0.0001	0.0002	0.0003
PENN MAR SHOPP.	0	100	0	100	128	0	4.5	574	57	43	327	323	247	244	0.0001	0.0003	0.0002	0.0005	0.0006
CAP PLAZA	0	100	0	100	128	0	4.5	574	57	43	327	323	247	244	0.0001	0.0003	0.0002	0.0005	0.0006
EASTOVER	0	100	0	100	128	0	4.5	574	57	43	327	323	247	244	0.0001	0.0003	0.0002	0.0005	0.0006
FOUR MILE RUN	0	28	0	28	36	0	4.5	161	57	43	92	90	69	68	0.0000	0.0001	0.0001	0.0001	0.0002
SPRINGFIELD MALL	0	580	0	580	740	0	4.5	3,331	57	43	1,899	1,874	1,432	1,414	0.0008	0.0015	0.0012	0.0028	0.0035
SPRINGFIELD METH CH	0	48	0	48	61	0	4.5	276	57	43	157	155	119	117	0.0001	0.0001	0.0001	0.0002	0.0003
FRED ARMORY	0	33	0	33	42	0	7.5	316	57	43	180	178	136	134	0.0000	0.0001	0.0001	0.0003	0.0003
MYERSVILLE	0	65	0	65	83	0	7.5	622	57	43	355	350	268	264	0.0001	0.0003	0.0002	0.0005	0.0006
ROSEMONT	0	45	0	45	57	0	7.5	431	57	43	245	242	185	183	0.0001	0.0002	0.0002	0.0004	0.0004
URBANA	0	193	0	193	246	0	7.5	1,847	57	43	1,053	1,040	794	784	0.0003	0.0009	0.0007	0.0015	0.0018
JEFFERSON	0	40	0	40	51	0	7.5	383	57	43	218	215	165	163	0.0001	0.0002	0.0001	0.0003	0.0004
NORBECK RD	0	248	0	248	316	0	7.5	2,374	57	43	1,353	1,336	1,021	1,008	0.0003	0.0011	0.0009	0.0020	0.0023
MONTROSE RD	0	650	0	650	829	0	7.5	6,221	57	43	3,546	3,501	2,675	2,641	0.0009	0.0029	0.0023	0.0052	0.0060
BRIGG CHENNY 50%	50	215	215	430	274	274	7.5	4,116	57	43	2,346	2,316	1,770	1,747	0.0004	0.0019	0.0015	0.0034	0.0039
COMUS ROAD	0	30	0	30	38	0	7.5	287	57	43	164	162	123	122	0.0000	0.0001	0.0001	0.0002	0.0003
LAKEFOREST MALL	0	300	0	300	383	0	7.5	2,871	57	43	1,637	1,616	1,235	1,219	0.0004	0.0013	0.0011	0.0024	0.0028
BURTONSVILLE	0	500	0	500	638	0	7.5	4,786	57	43	2,728	2,693	2,058	2,032	0.0007	0.0022	0.0018	0.0040	0.0046
FORCEY MEM.	0	200	0	200	255	0	7.5	1,914	57	43	1,091	1,077	823	813	0.0003	0.0009	0.0007	0.0016	0.0019
TECH ROAD	0	155	0	155	198	0	7.5	1,484	57	43	846	835	638	630	0.0002	0.0007	0.0005	0.0012	0.0014
BELTWAY	0	265	0	265	338	0	7.5	2,536	57	43	1,446	1,427	1,091	1,077	0.0003	0.0012	0.0009	0.0021	0.0025
LAUREL VAN DUSEN	0	62	0	62	79	0	7.5	593	57	43	338	334	255	252	0.0001	0.0003	0.0002	0.0005	0.0006
ACCOKEEK	0	450	0	450	574	0	7.5	4,307	57	43	2,455	2,424	1,852	1,828	0.0006	0.0020	0.0016	0.0036	0.0042
ABC DRIVE IN	0	100	0	100	128	0	7.5	957	57	43	546	539	412	406	0.0001	0.0004	0.0004	0.0008	0.0009
BOWIE 20%	20	526	131	657	671	168	7.5	6,288	57	43	3,584	3,539	2,704	2,670	0.0008	0.0029	0.0023	0.0052	0.0060
CLINTON 50%	50	212	212	424	271	271	7.5	4,058	57	43	2,313	2,284	1,745	1,723	0.0004	0.0019	0.0015	0.0034	0.0038
OXON HILL 20%	20	519	130	649	663	166	7.5	6,212	57	43	3,541	3,496	2,671	2,637	0.0008	0.0029	0.0023	0.0052	0.0059
EQUESTRIAN CENTER 50%	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,616	1,235	1,219	0.0003	0.0013	0.0011	0.0024	0.0027
BOWIE MARKET PLACE	0	50	0	50	64	0	7.5	479	57	43	273	269	206	203	0.0001	0.0002	0.0002	0.0004	0.0005
FT.WASHINGTON	0	412	0	412	526	0	7.5	3,943	57	43	2,248	2,219	1,696	1,674	0.0005	0.0018	0.0014	0.0033	0.0038
MONTPELIER REC PARK	0	70	0	70	89	0	7.5	670	57	43	382	377	288	284	0.0001	0.0003	0.0002	0.0006	0.0006
RESTON	0	1547	0	1547	1974	0	7.5	14,806	57	43	8,440	8,333	6,367	6,286	0.0020	0.0069	0.0054	0.0123	0.0144
GREENBRIAR	0	55	0	55	70	0	7.5	526	57	43	300	296	226	223	0.0001	0.0002	0.0002	0.0004	0.0005
FAIR OAKS	0	150	0	150	191	0	7.5	1,436	57	43	818	808	617	609	0.0002	0.0007	0.0005	0.0012	0.0014
ROLLING VALLEY	0	628	0	628	801	0	7.5	6,011	57	43	3,426	3,383	2,585	2,552	0.0008	0.0028	0.0022	0.0050	0.0058
SPRINGFIELD PLAZA	0	230	0	230	294	0	7.5	2,201	57	43	1,255	1,239	947	935	0.0003	0.0010	0.0008	0.0018	0.0021
FAIRLANES BOWL	0	35	0	35	45	0	7.5	335	57	43	191	189	144	142	0.0000	0.0002	0.0001	0.0003	0.0003

SEASON 2 (May-Sep)
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														E M I S S I O N S							
LOCATION	OUTSIDE MSA (%)	INSIDE MSA	2002		2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL		FREEWAY		ARTERIAL VMT	Adj.Art VMT	FREEWAY VMT	Adj.Fwy VMT	COLD START Rate (gm/mile)	RUNNING		Total Running Emission (tones/day)	TOTAL (tons/day)
			Total	INSIDE Growth Rate	OUTSIDE Growth Rate	%						Rate (gm/mile)						Rate (gm/mile)	Rate (gm/mile)		
					1.28	1.28						Wk Days = 107				0.5979	0.3747	0.3926			
COMMUTER RAIL LOTS												Seasonal adj = 0.9873									
NOTTOWAY PARK	0	14	0	14	18	0	7.5	134	57	43	76	75	58	57	0.0000	0.0001	0.0000	0.0001	0.0001		
HORNER RD	0	2397	0	2397	3059	0	7.5	22,942	57	43	13,077	12,911	9,865	9,740	0.0032	0.0107	0.0084	0.0191	0.0223		
LAKE RIDGE	0	555	0	555	708	0	7.5	5,312	57	43	3,028	2,989	2,284	2,255	0.0007	0.0025	0.0020	0.0044	0.0052		
MINNIEVILLE RD 40%	40	336	224	560	429	286	7.5	5,360	57	43	3,055	3,016	2,305	2,275	0.0006	0.0025	0.0020	0.0045	0.0051		
GORDON BLVD	0	156	0	156	199	0	7.5	1,493	57	43	851	840	642	634	0.0002	0.0007	0.0005	0.0012	0.0014		
HILLEDALE	0	248	0	248	316	0	7.5	2,374	57	43	1,353	1,336	1,021	1,008	0.0003	0.0011	0.0009	0.0020	0.0023		
POTOMAC MILLS	0	946	0	946	1207	0	7.5	9,054	57	43	5,161	5,095	3,893	3,844	0.0012	0.0042	0.0033	0.0075	0.0088		
List of new lots to be added in Conformity Document list																					
</																					

SEASON 2 (May-Sep)

06/15/09

2010 Precursor NOx

AUTO ACCESS TO TRANSIT

2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	2002				2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL %	FREEWAY VMT	ARTERIAL VMT	Adj.Art VMT	FREEWAY VMT	Adj.Fwy VMT	COLD START Rate (gm/mile)	E M I S S I O N S				TOTAL (tons/day)
	OUTSIDE MSA (%)	INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate										Arterial Rate (gm/mile)	Freeway Rate (gm/mile)	Total Running Emission (tons/day)		
					1.28	1.28					Wk Days =	107		0.5979	0.3747	0.3926				
COMMUTER RAIL LOTS											Seasonal adj =	0.9873								
Sydenstricker Rd	50	84	84	167	107	107	7.5	1,598	57	43	911	900	687	679	0.0002	0.0007	0.0006	0.0013	0.0015	
Wakefield Chapel Pk	50	25	25	50	32	32	7.5	479	57	43	273	269	206	203	0.0000	0.0002	0.0002	0.0004	0.0004	
PARK-AND-RIDE LOTS - VIRGINIA																				
LOUDOUN COUNTY																				
Ashburn Farm	50	10	10	20	13	13	7.5	191	57	43	109	108	82	81	0.0000	0.0001	0.0001	0.0002	0.0002	
Ashburn Village	50	20	20	40	26	26	7.5	383	57	43	218	215	165	163	0.0000	0.0002	0.0001	0.0003	0.0004	
Cascades	50	28	28	55	35	35	7.5	526	57	43	300	296	226	223	0.0001	0.0002	0.0002	0.0004	0.0005	
Dulles North Transit	50	375	375	750	479	479	7.5	7,178	57	43	4,092	4,040	3,087	3,047	0.0007	0.0033	0.0026	0.0060	0.0067	
Hamilton	50	25	25	50	32	32	7.5	479	57	43	273	269	206	203	0.0000	0.0002	0.0002	0.0004	0.0004	
Innovation Avenue	50	38	38	75	48	48	7.5	718	57	43	409	404	309	305	0.0001	0.0003	0.0003	0.0006	0.0007	
Leesburg	50	25	25	50	32	32	7.5	479	57	43	273	269	206	203	0.0000	0.0002	0.0002	0.0004	0.0004	
Leesburg Kohls	50	600	600	1200	766	766	7.5	11,485	57	43	6,547	6,463	4,939	4,876	0.0012	0.0053	0.0042	0.0096	0.0107	
Purcellville	50	18	18	35	22	22	7.5	335	57	43	191	189	144	142	0.0000	0.0002	0.0001	0.0003	0.0003	
Sterling Park SC	50	23	23	45	29	29	7.5	431	57	43	245	242	185	183	0.0000	0.0002	0.0002	0.0004	0.0004	
Sterling Shaw Rd	50	24	24	48	31	31	7.5	459	57	43	262	259	198	195	0.0000	0.0002	0.0002	0.0004	0.0004	
PARK-AND-RIDE LOTS - VIRGINIA																				
PRINCE WILLIAM COUNTY																				
Brittany	50	48	48	95	61	61	7.5	909	57	43	518	512	391	386	0.0001	0.0004	0.0003	0.0008	0.0009	
Dale City	50	294	294	587	375	375	7.5	5,618	57	43	3,202	3,162	2,416	2,385	0.0006	0.0026	0.0021	0.0047	0.0053	
Harbor Drive	50	100	100	200	128	128	7.5	1,914	57	43	1,091	1,077	823	813	0.0002	0.0009	0.0007	0.0016	0.0018	
Lindendale	50	108	108	216	138	138	7.5	2,067	57	43	1,178	1,163	889	878	0.0002	0.0010	0.0008	0.0017	0.0019	
Montclair	50	25	25	50	32	32	7.5	479	57	43	273	269	206	203	0.0000	0.0002	0.0002	0.0004	0.0004	
PRTC Transit Center	50	93	93	185	118	118	7.5	1,771	57	43	1,009	996	761	752	0.0002	0.0008	0.0007	0.0015	0.0017	
Tackett's Mill	50	85	85	169	108	108	7.5	1,618	57	43	922	910	696	687	0.0002	0.0008	0.0006	0.0013	0.0015	
Triangle	50	15	15	29	19	19	7.5	278	57	43	158	156	119	118	0.0000	0.0001	0.0001	0.0002	0.0003	
I-95 / Rt 123	50	282	282	563	359	359	7.5	5,389	57	43	3,071	3,032	2,317	2,288	0.0006	0.0025	0.0020	0.0045	0.0050	
US 1 / VA 234	50	137	137	274	175	175	7.5	2,622	57	43	1,495	1,476	1,128	1,113	0.0003	0.0012	0.0010	0.0022	0.0025	
MARC TRAIN COMMUTER LOTS																				
College Park	25	431	144	574	549	183	7.5	5,494	57	43	3,131	3,092	2,362	2,332	0.0007	0.0026	0.0020	0.0046	0.0052	
Frederick	0	0	0	0	0	0	7.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Greenbelt	60	1346	2018	3364	1717	2576	7.5	32,197	57	43	18,352	18,119	13,845	13,669	0.0031	0.0150	0.0118	0.0268	0.0299	
Harpers Ferry		98	0	98	125	0	7.5	938	57	43	535	528	403	398	0.0001	0.0004	0.0003	0.0008	0.0009	
Muirkirk	60	260	390	650	332	498	7.5	6,221	57	43	3,546	3,501	2,675	2,641	0.0006	0.0029	0.0023	0.0052	0.0058	
Seabrook	0	264	0	264	337	0	4.5	1,516	57	43	864	853	652	644	0.0003	0.0007	0.0006	0.0013	0.0016	
Silver Spring	0	0	0	0	0	0	4.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000	
Union Station	0	781	0	781	997	0	7.5	7,475	57	43	4,261	4,207	3,214	3,173	0.0010	0.0035	0.0027	0.0062	0.0073	
VIRGINIA RAILWAY EXPRESS COMMUTER LOTS																				
Backlick Road	50	110	110	220	140	140	7.5	2,106	57	43	1,200	1,185	905	894	0.0002	0.0010	0.0008	0.0018	0.0020	
Broad Run	50	198	198	396	253	253	7.5	3,790	57	43	2,160	2,133	1,630	1,609	0.0004	0.0018	0.0014	0.0032	0.0035	
Brooke	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,616	1,235	1,219	0.0003	0.0013	0.0011	0.0024	0.0027	
Burke Center	50	275	275	550	351	351	7.5	5,264	57	43	3,001	2,962	2,264	2,235	0.0005	0.0024	0.0019	0.0044	0.0049	
Franconia/Springfield (operated	50	1900	1900	3800	2425	2425	7.5	36,370	57	43	20,731	20,468	15,639	15,441	0.0038	0.0169	0.0134	0.0303	0.0340	
Leeland Road	50	326	326	652	416	416	7.5	6,240	57	43	3,557	3,512	2,683	2,649	0.0006	0.0029	0.0023	0.0052	0.0058	
Lorton	50	100	100	200	128	128	7.5	1,914	57	43	1,091	1,077	823	813	0.0002	0.0009	0.0007	0.0016	0.0018	
Manassas	50	187	187	374	239	239	7.5	3,580	57	43	2,040	2,014	1,539	1,520	0.0004	0.0017	0.0013	0.0030	0.0033	
Manassas Park	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,616	1,235	1,219	0.0003	0.0013	0.0011	0.0024	0.0027	
Quantico	50	109	109	217	138	138	7.5	2,077	57	43	1,184	1,169	893	882	0.0002	0.0010	0.0008	0.0017	0.0019	
Rippon	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,616	1,235	1,219	0.0003	0.0013	0.0011	0.0024	0.0027	
Rolling Road	50	185	185	370	236	236	7.5	3,541	57	43	2,019	1,993	1,523	1,503	0.0004	0.0016	0.0013	0.0029	0.0033	
Woodbridge	50	294	294	588	375	375	7.5	5,628	57	43	3,208	3,167	2,420	2,389	0.0006	0.0026	0.0021	0.0047	0.0053	
METRO RAIL PARKING LOTS																				
Anacostia	25	861	287	1148	1099	366	7.5	10,988	57	43	6,263	6,183	4,725	4,665	0.0013	0.0051	0.0040	0.0091	0.0105	
Branch Avenue	50	1611	1611	3222	2056	2056	7.5	30,838	57	43	17,578	17,354	13,260	13,092	0.0032	0.0143	0.0113	0.0257	0.0289	
Capitol Heights	50	194	194	387	247	247	7.5	3,704	57	43	2,111	2,084	1,593	1,572	0.0004	0.0017	0.0014	0.0031	0.0035	
College Park	25	465	155	620	593	198	7.5	5,934	57	43	3,382	3,339	2,552	2,519	0.0007	0.0028	0.0022	0.0049	0.0057	
Congress Heights	0	66	0	66	84	0	4.5	379	57	43	216	213	163	161	0.0001	0.0002	0.0001	0.0003	0.0004	
Deanwood	0	194	0	194	248	0	7.5	1,857	57	43	1,058	1,045	798	788	0.0003	0.0009	0.0007	0.0015	0.0018	
East Falls Church	50	221	221	442	282	282	7.5	4,230	57	43	2,411	2,381	1,819	1,796	0.0004	0.0020	0.0016	0.0035	0.0040	
Forest Glen	50	329	329	658	420	420	7.5	6,298	57	43	3,590	3,544	2,708	2,674	0.0007	0.0029	0.0023	0.0052	0.0059	
Franconia - Springfield	50	1987	1987	3973	2535	2535	4.5	22,816	57	43	13,005	12,840	9,811	9,686	0.0039	0.0106	0.0084	0.0190	0.0229	

SEASON 2 (May-Sep)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

06/15/09

LOCATION														E M I S S I O N S								
	OUTSIDE MSA (%)	INSIDE MSA	OUTSIDE MSA	Total	2002		2010		AVERAGE	2010	ARTERIAL	FREEWAY	ARTERIAL	Adj.Art	FREEWAY	Adj.Fwy VMT	COLD START	RUNNING			TOTAL	
					INSIDE	OUTSIDE	TRIP LENGTH	VMT											Arterial	Freeway		Total Running Emission (tones/day)
					Growth Rate	Growth Rate			%	VMT					Rate (gm/mile)			Rate (gm/mile)	Rate (gm/mile)			
					1.28	1.28							Wk Days =	107		0.5979	0.3747	0.3926				
COMMUTER RAIL LOTS													Seasonal adj =	0.9873								
Glenmont	50	925	925	1850	1180	1180	4.5	10,624	57	43	6,056		5,979	4,568	4,510	0.0018	0.0049	0.0039	0.0088	0.0107		
Greenbelt	50	1783	1783	3565	2275	2275	7.5	34,121	57	43	19,449	19,202	14,672	14,486		0.0035	0.0159	0.0125	0.0284	0.0319		
Naylor Road	50	216	216	431	275	275	7.5	4,125	57	43	2,351	2,321	1,774	1,751		0.0004	0.0019	0.0015	0.0034	0.0039		
Prince George's Plaza	25	927	309	1236	1183	394	7.5	11,830	57	43	6,743	6,657	5,087	5,022		0.0014	0.0055	0.0043	0.0098	0.0113		
Southern Avenue	50	1090	1090	2180	1391	1391	4.5	12,519	57	43	7,136	7,045	5,383	5,315		0.0022	0.0058	0.0046	0.0104	0.0126		
Suitland	50	1033	1033	2065	1318	1318	4.5	11,859	57	43	6,759	6,674	5,099	5,034		0.0020	0.0055	0.0044	0.0099	0.0119		
Van Dorn Street	50	204	204	407	260	260	4.5	2,337	57	43	1,332	1,315	1,005	992		0.0004	0.0011	0.0009	0.0019	0.0023		
West Hyattsville	25	453	151	604	578	193	7.5	5,781	57	43	3,295	3,253	2,486	2,454		0.0007	0.0027	0.0021	0.0048	0.0055		
Wheaton	25	759	253	1012	969	323	7.5	9,686	57	43	5,521	5,451	4,165	4,112		0.0012	0.0045	0.0036	0.0081	0.0092		
				108,749				912,453								0.1235	0.4242	0.3353	0.7595	0.8830		

Seasonal Total (tons/season) = **94.48**

Bold figures: New numbers taken from P & R directory
Figures in bracket: Carry forward figures from conformity doc.

Park lot Growth Rate	
Transit trips 2010	1161947
Transit trips 2000	863783
Annual growth rate	0.03451839
Growth factor (2002-2010)	1.27614713

SEASON 3 (Oct-Dec)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

06/15/09

LOCATION														E M I S S I O N S									
	OUTSIDE MSA (%)	INSIDE MSA	OUTSIDE MSA	Total	2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL		FREEWAY	ARTERIAL VMT	Adj.Art VMT	FREEWAY VMT	Adj.Fwy VMT	COLD START	RUNNING		Total Running Emission (tones/day)	TOTAL (tons/day)			
					INSIDE Growth Rate	OUTSIDE Growth Rate			%												Rate (gm/mile)	Arterial Rate (gm/mile)	Freeway Rate (gm/mile)
					1.28	1.28						Wk Days = 61			0.7388	0.4434	0.4659						
COMMUTER RAIL LOTS												Seasonal adj = 0.9282											
BRUNSWICK 25%	25	305	102	407	390	130	7.5	3,895	57	43	2,220	2,061	1,675	1,555	0.0006	0.0020	0.0016	0.0036	0.0042				
PT OF ROCKS 25%	25	204	68	272	260	87	7.5	2,603	57	43	1,484	1,377	1,119	1,039	0.0004	0.0013	0.0011	0.0024	0.0028				
DICKERSON	0	15	0	15	19	0	7.5	144	57	43	82	76	62	57	0.0000	0.0001	0.0001	0.0001	0.0002				
BARNESVILLE	0	46	0	46	59	0	7.5	440	57	43	251	233	189	176	0.0001	0.0002	0.0002	0.0004	0.0005				
GERMANTOWN	0	386	0	386	493	0	7.5	3,694	57	43	2,106	1,955	1,589	1,475	0.0006	0.0019	0.0015	0.0034	0.0041				
MET GROVE	0	352	0	352	449	0	7.5	3,369	57	43	1,920	1,782	1,449	1,345	0.0006	0.0017	0.0014	0.0031	0.0037				
WAS GROVE	0	15	0	15	19	0	7.5	144	57	43	82	76	62	57	0.0000	0.0001	0.0001	0.0001	0.0002				
GARRETT PARK	0	22	0	22	28	0	7.5	211	57	43	120	111	91	84	0.0000	0.0001	0.0001	0.0002	0.0002				
BOWIE 50%	50	188	188	375	239	239	7.5	3,589	57	43	2,046	1,899	1,543	1,433	0.0005	0.0019	0.0015	0.0033	0.0038				
SEABROOK 15%	15	224	40	264	286	51	7.5	2,527	57	43	1,440	1,337	1,087	1,009	0.0004	0.0013	0.0010	0.0023	0.0027				
KENSINGTON	0	45	0	45	57	0	7.5	431	57	43	245	228	185	172	0.0001	0.0002	0.0002	0.0004	0.0005				
LAUREL 30%	30	209	90	299	267	114	7.5	2,862	57	43	1,631	1,514	1,231	1,142	0.0004	0.0015	0.0012	0.0027	0.0031				
GAITHESBURG	0	280	0	280	357	0	7.5	2,680	57	43	1,528	1,418	1,152	1,070	0.0005	0.0014	0.0011	0.0025	0.0029				
BERWYN HEIGHTS	0	30	0	30	38	0	4.5	172	57	43	98	91	74	69	0.0000	0.0001	0.0001	0.0002	0.0002				
RIVERDALE	0	65	0	65	83	0	4.5	373	57	43	213	197	161	149	0.0001	0.0002	0.0002	0.0003	0.0005				
METRO RAIL LOTS																							
ADDISON ROAD 40%	40	791	527	1318	1009	673	7.5	12,615	57	43	7,190	6,674	5,424	5,035	0.0017	0.0065	0.0052	0.0117	0.0134				
ARCHIVES	0	12	0	12	15	0	4.5	69	57	43	39	36	30	28	0.0000	0.0000	0.0000	0.0001	0.0001				
ARLINGTON	0	10	0	10	13	0	4.5	57	57	43	33	30	25	23	0.0000	0.0000	0.0000	0.0001	0.0001				
BALLSTON	0	1175	0	1175	1499	0	4.5	6,748	57	43	3,846	3,570	2,901	2,693	0.0019	0.0035	0.0028	0.0063	0.0082				
BENNING RD	0	520	0	520	664	0	4.5	2,986	57	43	1,702	1,580	1,284	1,192	0.0008	0.0015	0.0012	0.0028	0.0036				
BETH	0	395	0	395	504	0	4.5	2,268	57	43	1,293	1,200	975	905	0.0006	0.0012	0.0009	0.0021	0.0027				
BRADDOCK RD	0	10	0	10	13	0	4.5	57	57	43	33	30	25	23	0.0000	0.0000	0.0000	0.0001	0.0001				
BROOKLAND	0	27	0	27	34	0	4.5	155	57	43	88	82	67	62	0.0000	0.0001	0.0001	0.0001	0.0002				
CHEVERLY	0	557	0	557	711	0	4.5	3,199	57	43	1,823	1,692	1,375	1,277	0.0009	0.0017	0.0013	0.0030	0.0039				
CLARENDON	0	554	0	554	707	0	4.5	3,181	57	43	1,813	1,683	1,368	1,270	0.0009	0.0016	0.0013	0.0029	0.0039				
CLEVELAND PARK	0	366	0	366	467	0	4.5	2,102	57	43	1,198	1,112	904	839	0.0006	0.0011	0.0009	0.0019	0.0025				
COURT HOUSE	0	256	0	256	327	0	4.5	1,470	57	43	838	778	632	587	0.0004	0.0008	0.0006	0.0014	0.0018				
CRYSTAL CITY	0	347	0	347	443	0	4.5	1,993	57	43	1,136	1,054	857	795	0.0006	0.0010	0.0008	0.0018	0.0024				
DEANWOOD	0	194	0	194	248	0	4.5	1,114	57	43	635	589	479	445	0.0003	0.0006	0.0005	0.0010	0.0013				
DUN LORING 10%	10	1220	136	1355	1556	173	4.5	7,781	57	43	4,435	4,117	3,346	3,106	0.0021	0.0040	0.0032	0.0072	0.0093				
DUPONT CIRCLE	0	165	0	165	211	0	4.5	948	57	43	540	501	407	378	0.0003	0.0005	0.0004	0.0009	0.0011				
EASTERN MARKET	0	178	0	178	227	0	4.5	1,022	57	43	583	541	440	408	0.0003	0.0005	0.0004	0.0009	0.0012				
EAST FALLS CHURCH	0	442	0	442	564	0	4.5	2,538	57	43	1,447	1,343	1,091	1,013	0.0007	0.0013	0.0010	0.0024	0.0031				
EIS	0	352	0	352	449	0	4.5	2,021	57	43	1,152	1,069	869	807	0.0006	0.0010	0.0008	0.0019	0.0024				
FARRAGUT NORTH	0	102	0	102	130	0	4.5	586	57	43	334	310	252	234	0.0002	0.0003	0.0002	0.0005	0.0007				
FARRAGUT WEST	0	221	0	221	282	0	4.5	1,269	57	43	723	671	546	507	0.0004	0.0007	0.0005	0.0012	0.0015				
FEDERAL CENTER	0	75	0	75	96	0	4.5	431	57	43	245	228	185	172	0.0001	0.0002	0.0002	0.0004	0.0005				
FEDERAL TRIANGLE	0	54	0	54	69	0	4.5	310	57	43	177	164	133	124	0.0001	0.0002	0.0001	0.0003	0.0004				
FOGGY	0	102	0	102	130	0	4.5	586	57	43	334	310	252	234	0.0002	0.0003	0.0002	0.0005	0.0007				
FORT TROTTER	0	445	0	445	568	0	4.5	2,555	57	43	1,457	1,352	1,099	1,020	0.0007	0.0013	0.0010	0.0024	0.0031				
FREDERICK HEIGHTS	0	679	0	679	867	0	4.5	3,899	57	43	2,223	2,063	1,677	1,556	0.0011	0.0020	0.0016	0.0036	0.0047				
GALLERY PLACE	0	124	0	124	158	0	4.5	712	57	43	406	377	306	284	0.0002	0.0004	0.0003	0.0007	0.0009				
GROSVENOR	0	716	0	716	914	0	4.5	4,112	57	43	2,344	2,175	1,768	1,641	0.0012	0.0021	0.0017	0.0038	0.0050				
HUNT NORTH 40%	40	1873	1249	3122	2390	1594	7.5	29,881	57	43	17,032	15,809	12,849	11,926	0.0041	0.0155	0.0122	0.0277	0.0318				
JUD SQUARE	0	110	0	110	140	0	4.5	632	57	43	360	334	272	252	0.0002	0.0003	0.0003	0.0006	0.0008				
KING STREET	0	30	0	30	38	0	4.5	172	57	43	98	91	74	69	0.0000	0.0001	0.0001	0.0002	0.0002				
LANDOVER 25%	25	1410	470	1880	1799	600	7.5	17,994	57	43	10,256	9,520	7,737	7,182	0.0027	0.0093	0.0074	0.0167	0.0194				
L'ENFANT PLAZA	0	296	0	296	378	0	4.5	1,700	57	43	969	899	731	678	0.0005	0.0009	0.0007	0.0016	0.0021				
MCPHERSON SQUARE	0	52	0	52	66	0	4.5	299	57	43	170	158	128	119	0.0001	0.0002	0.0001	0.0003	0.0004				
MEDICAL CENTER	0	14	0	14	18	0	4.5	80	57	43	46	43	35	32	0.0000	0.0000	0.0000	0.0001	0.0001				
METRO CENTER	0	177	0	177	226	0	4.5	1,016	57	43	579	538	437	406	0.0003	0.0005	0.0004	0.0009	0.0012				
MINNESOTA	0	353	0	353	450	0	4.5	2,027	57	43	1,155	1,073	872	809	0.0006	0.0010	0.0008	0.0019	0.0025				
NATURAL AIR	0	87	0	87	111	0	4.5	500	57	43	285	264	215	199	0.0001	0.0003	0.0002	0.0005	0.0006				
NEW CARROLL 50%	50	1049	1049	2097	1338	1338	7.5	20,071	57	43	11,440	10,619	8,630	8,011	0.0026	0.0104	0.0082	0.0186	0.0212				
PENTAGON	0	561	0	561	716	0	4.5	3,222	57	43	1,836	1,704	1,385	1,286	0.0009	0.0017	0.0013	0.0030	0.0039				

SEASON 3 (Oct-Dec)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

06/15/09

LOCATION	E M I S S I O N S														TOTAL (tons/day)							
	OUTSIDE MSA (%)	INSIDE MSA	OUTSIDE MSA	Total	2002		2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL		FREEWAY			Adj,Art VMT	FREEWAY VMT	Adj,Fwy VMT	COLD START Rate (gm/mile)	RUNNING		Total Running Emission (tones/day)
					Growth Rate	Growth Rate	%	%			Rate (gm/mile)	Rate (gm/mile)	Rate (gm/mile)	Rate (gm/mile)								
					1.28	1.28							Wk Days = 61			0.7388	0.4434	0.4659				
COMMUTER RAIL LOTS													Seasonal adj = 0.9282									
PENTAGON CITY	0	381	0	381	486	0	4.5	2,188	57	43	1,247	1,158	941	873	0.0006	0.0011	0.0009	0.0020	0.0026			
POTOMAC AVE	0	533	0	533	680	0	4.5	3,061	57	43	1,745	1,619	1,316	1,222	0.0009	0.0016	0.0013	0.0028	0.0037			
ROCKVILLE	0	667	0	667	851	0	4.5	3,830	57	43	2,183	2,027	1,647	1,529	0.0011	0.0020	0.0016	0.0036	0.0046			
ROSSLYN	0	356	0	356	454	0	4.5	2,044	57	43	1,165	1,082	879	816	0.0006	0.0011	0.0008	0.0019	0.0025			
SHADY GROVE 10%	10	3903	434	4337	4981	553	7.5	41,510	57	43	23,661	21,962	17,849	16,568	0.0067	0.0215	0.0170	0.0385	0.0452			
SILVER SPRING	0	44	0	44	56	0	4.5	253	57	43	144	134	109	101	0.0001	0.0001	0.0001	0.0002	0.0003			
SMITH MALL	0	120	0	120	153	0	4.5	689	57	43	393	365	296	275	0.0002	0.0004	0.0003	0.0006	0.0008			
STADIUM ARM	0	976	0	976	1246	0	4.5	5,605	57	43	3,195	2,965	2,410	2,237	0.0016	0.0029	0.0023	0.0052	0.0068			
TAKOMA PK	0	146	0	146	186	0	4.5	838	57	43	478	444	361	335	0.0002	0.0004	0.0003	0.0008	0.0010			
TENLEYTON	0	17	0	17	22	0	4.5	98	57	43	56	52	42	39	0.0000	0.0001	0.0000	0.0001	0.0001			
TWINBROOK	0	1136	0	1136	1450	0	4.5	6,524	57	43	3,718	3,452	2,805	2,604	0.0019	0.0034	0.0027	0.0060	0.0079			
UNION STAT	0	378	0	378	482	0	4.5	2,171	57	43	1,237	1,148	933	866	0.0006	0.0011	0.0009	0.0020	0.0026			
VAN NESS	0	343	0	343	438	0	4.5	1,970	57	43	1,123	1,042	847	786	0.0006	0.0010	0.0008	0.0018	0.0024			
VIENNA 25%	25	2798	933	3731	3571	1190	7.5	35,710	57	43	20,355	18,893	15,355	14,253	0.0053	0.0185	0.0146	0.0331	0.0384			
VA SQUARE	0	642	0	642	819	0	4.5	3,687	57	43	2,101	1,951	1,585	1,471	0.0010	0.0019	0.0015	0.0034	0.0045			
WEST FALLS CHURCH	0	2183	0	2183	2786	0	4.5	12,536	57	43	7,146	6,633	5,391	5,004	0.0036	0.0065	0.0051	0.0116	0.0152			
WHITE FLINT	0	1633	0	1633	2084	0	4.5	9,378	57	43	5,345	4,962	4,032	3,743	0.0027	0.0049	0.0038	0.0087	0.0114			
WOODLEY	0	68	0	68	87	0	4.5	391	57	43	223	207	168	156	0.0001	0.0002	0.0002	0.0004	0.0005			
RHODE ISLAND 30%	30	266	114	380	339	145	7.5	3,637	57	43	2,073	1,924	1,564	1,452	0.0005	0.0019	0.0015	0.0034	0.0039			
BUS & CAR POOL LOTS																						
CARTER BARRON	0	798	0	798	1018	0	4.5	4,583	57	43	2,612	2,425	1,971	1,829	0.0013	0.0024	0.0019	0.0042	0.0055			
PG PLAZA	0	47	0	47	60	0	4.5	270	57	43	154	143	116	108	0.0001	0.0001	0.0001	0.0003	0.0003			
PENN MAR SHOPP.	0	100	0	100	128	0	4.5	574	57	43	327	304	247	229	0.0002	0.0003	0.0002	0.0005	0.0007			
CAP PLAZA	0	100	0	100	128	0	4.5	574	57	43	327	304	247	229	0.0002	0.0003	0.0002	0.0005	0.0007			
EASTOVER	0	100	0	100	128	0	4.5	574	57	43	327	304	247	229	0.0002	0.0003	0.0002	0.0005	0.0007			
FOUR MILE RUN	0	28	0	28	36	0	4.5	161	57	43	92	85	69	64	0.0000	0.0001	0.0001	0.0001	0.0002			
SPRINGFIELD MALL	0	580	0	580	740	0	4.5	3,331	57	43	1,899	1,762	1,432	1,329	0.0009	0.0017	0.0014	0.0031	0.0040			
SPRINGFIELD METH CH	0	48	0	48	61	0	4.5	276	57	43	157	146	119	110	0.0001	0.0001	0.0001	0.0003	0.0003			
FRED ARMORY	0	33	0	33	42	0	7.5	316	57	43	180	167	136	126	0.0001	0.0002	0.0001	0.0003	0.0003			
MYERSVILLE	0	65	0	65	83	0	7.5	622	57	43	355	329	268	248	0.0001	0.0003	0.0003	0.0006	0.0007			
ROSEMONT	0	45	0	45	57	0	7.5	431	57	43	245	228	185	172	0.0001	0.0002	0.0002	0.0004	0.0005			
URBANA	0	193	0	193	246	0	7.5	1,847	57	43	1,053	977	794	737	0.0003	0.0010	0.0008	0.0017	0.0020			
JEFFERSON	0	40	0	40	51	0	7.5	383	57	43	218	203	165	153	0.0001	0.0002	0.0002	0.0004	0.0004			
NORBECK RD	0	248	0	248	316	0	7.5	2,374	57	43	1,353	1,256	1,021	947	0.0004	0.0012	0.0010	0.0022	0.0026			
MONTROSE RD	0	650	0	650	829	0	7.5	6,221	57	43	3,546	3,291	2,675	2,483	0.0011	0.0032	0.0026	0.0058	0.0068			
BRIGG CHENNY 50%	50	215	215	430	274	274	7.5	4,116	57	43	2,346	2,177	1,770	1,643	0.0005	0.0021	0.0017	0.0038	0.0043			
COMUS ROAD	0	30	0	30	38	0	7.5	287	57	43	164	152	123	115	0.0000	0.0001	0.0001	0.0003	0.0003			
LAKEFOREST MALL	0	300	0	300	383	0	7.5	2,871	57	43	1,637	1,519	1,235	1,146	0.0005	0.0015	0.0012	0.0027	0.0032			
BURTONSVILLE	0	500	0	500	638	0	7.5	4,786	57	43	2,728	2,532	2,058	1,910	0.0008	0.0025	0.0020	0.0044	0.0053			
FORCEY MEM.	0	200	0	200	255	0	7.5	1,914	57	43	1,091	1,013	823	764	0.0003	0.0010	0.0008	0.0018	0.0021			
TECH ROAD	0	155	0	155	198	0	7.5	1,484	57	43	846	785	638	592	0.0003	0.0008	0.0006	0.0014	0.0016			
BELTWAY	0	265	0	265	338	0	7.5	2,536	57	43	1,446	1,342	1,091	1,012	0.0004	0.0013	0.0010	0.0024	0.0028			
LAUREL VAN DUSEN	0	62	0	62	79	0	7.5	593	57	43	338	314	255	237	0.0001	0.0003	0.0002	0.0006	0.0007			
ACCOKEEK	0	450	0	450	574	0	7.5	4,307	57	43	2,455	2,279	1,852	1,719	0.0007	0.0022	0.0018	0.0040	0.0047			
ABC DRIVE IN	0	100	0	100	128	0	7.5	957	57	43	546	506	412	382	0.0002	0.0005	0.0004	0.0009	0.0011			
BOWIE 20%	20	526	131	657	671	168	7.5	6,288	57	43	3,584	3,327	2,704	2,510	0.0010	0.0033	0.0026	0.0058	0.0068			
CLINTON 50%	50	212	212	424	271	271	7.5	4,058	57	43	2,313	2,147	1,745	1,620	0.0005	0.0021	0.0017	0.0038	0.0043			
OXON HILL 20%	20	519	130	649	663	166	7.5	6,212	57	43	3,541	3,286	2,671	2,479	0.0010	0.0032	0.0025	0.0058	0.0067			
EQUESTRIAN CENTER 50%	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,519	1,235	1,146	0.0004	0.0015	0.0012	0.0027	0.0030			
BOWIE MARKET PLACE	0	50	0	50	64	0	7.5	479	57	43	273	253	206	191	0.0001	0.0002	0.0002	0.0004	0.0005			
FT.WASHINGTON	0	412	0	412	526	0	7.5	3,943	57	43	2,248	2,086	1,696	1,574	0.0007	0.0020	0.0016	0.0037	0.0043			
MONTPELIER REC PARK	0	70	0	70	89	0	7.5	670	57	43	382	354	288	267	0.0001	0.0003	0.0003	0.0006	0.0007			
RESTON	0	1547	0	1547	1974	0	7.5	14,806	57	43	8,440	7,834	6,367	5,910	0.0025	0.0077	0.0061	0.0137	0.0162			
GREENBRIAR	0	55	0	55	70	0	7.5	526	57	43	300	279	226	210	0.0001	0.0003	0.0002	0.0005	0.0006			
FAIR OAKS	0	150	0	150	191	0	7.5	1,436	57	43	818	760	617	573	0.0002	0.0007	0.0006	0.0013	0.0016			
ROLLING VALLEY	0	628	0	628	801	0	7.5	6,011	57	43	3,426	3,180	2,585	2,399	0.0010	0.0031	0.0025	0.0056	0.0066			
SPRINGFIELD PLAZA	0	230	0	230	294	0	7.5	2,201	57	43	1,255	1,165	947	879	0.0004	0.0011	0.0009	0.0020	0.0024			
FAIRLANES BOWL	0	35	0	35	45	0	7.5	335	57	43	191	177	144	134	0.0001	0.0002	0.0001	0.0003	0.0004			

SEASON 3 (Oct-Dec)
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LOCATION	2002				2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL	FREEWAY	ARTERIAL VMT	Adj.Art VMT	FREEWAY VMT	Adj.Fwy VMT	E M I S S I O N S					TOTAL (tons/day)					
	OUTSIDE MSA (%)	INSIDE MSA	OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate									%		COLD START	Arterial Rate (gm/mile)	Freeway Rate (gm/mile)		Total Running Emission (tones/day)				
																						Rate (gm/mile)	Rate (gm/mile)	Rate (gm/mile)	Total Running Emission (tones/day)
					1.28	1.28					Wk Days = 61			0.7388	0.4434	0.4659									
COMMUTER RAIL LOTS											Seasonal adj = 0.9282														
NOTTOWAY PARK	0	14	0	14	18	0	7.5	134	57	43	76	71	58	53	0.0000	0.0001	0.0001	0.0001	0.0001						
HORNER RD	0	2397	0	2397	3059	0	7.5	22,942	57	43	13,077	12,138	9,865	9,157	0.0039	0.0119	0.0094	0.0213	0.0252						
LAKE RIDGE	0	555	0	555	708	0	7.5	5,312	57	43	3,028	2,810	2,284	2,120	0.0009	0.0027	0.0022	0.0049	0.0058						
MINNIEVILLE RD 40%	40	336	224	560	429	286	7.5	5,360	57	43	3,055	2,836	2,305	2,139	0.0007	0.0028	0.0022	0.0050	0.0057						
GORDON BLVD	0	156	0	156	199	0	7.5	1,493	57	43	851	790	642	596	0.0003	0.0008	0.0006	0.0014	0.0016						
HILLEDALE	0	248	0	248	316	0	7.5	2,374	57	43	1,353	1,256	1,021	947	0.0004	0.0012	0.0010	0.0022	0.0026						
POTOMAC MILLS	0	946	0	946	1207	0	7.5	9,054	57	43	5,161	4,790	3,893	3,614	0.0015	0.0047	0.0037	0.0084	0.0099						
List of new lots to be added in Conformity Document list																									
PARK-AND-RIDE LOTS - MARYLAND																									
PARK-AND-RIDE LOTS - MARYLAND																									
CHARLES COUNTY																									
301 Park & Ride	25	287	96	383	367	122	7.5	3,666	57	43	2,089	1,939	1,576	1,463	0.0005	0.0019	0.0015	0.0034	0.0039						
Charles County Government Bl	25	26	9	35	33	11	7.5	335	57	43	191	177	144	134	0.0000	0.0002	0.0001	0.0003	0.0004						
Food Lion Shopping Center	25	38	13	50	48	16	7.5	479	57	43	273	253	206	191	0.0001	0.0002	0.0002	0.0004	0.0005						
La Plata Armory	25	15	5	20	19	6	7.5	191	57	43	109	101	82	76	0.0000	0.0001	0.0001	0.0002	0.0002						
Laurel Springs Regional Park	25	38	13	50	48	16	7.5	479	57	43	273	253	206	191	0.0001	0.0002	0.0002	0.0004	0.0005						
Life Wesleyan Church	25	38	13	50	48	16	7.5	479	57	43	273	253	206	191	0.0001	0.0002	0.0002	0.0004	0.0005						
Mattawoman-Beantown Rd	25	435	145	580	555	185	7.5	5,551	57	43	3,164	2,937	2,387	2,216	0.0008	0.0029	0.0023	0.0051	0.0060						
Smallwood Village	25	75	25	100	96	32	7.5	957	57	43	546	506	412	382	0.0001	0.0005	0.0004	0.0009	0.0010						
St. Charles Towne	25	263	88	350	335	112	7.5	3,350	57	43	1,909	1,772	1,440	1,337	0.0005	0.0017	0.0014	0.0031	0.0036						
PARK-AND-RIDE LOTS - MARYLAND																									
FREDERICK COUNTY																									
Frederick (north)	25	123	41	164	157	52	7.5	1,570	57	43	895	830	675	626	0.0002	0.0008	0.0006	0.0015	0.0017						
Frederick (south)	25	173	58	230	220	73	7.5	2,201	57	43	1,255	1,165	947	879	0.0003	0.0011	0.0009	0.0020	0.0024						
Monacacy Marcst	25	600	200	800	766	255	7.5	7,657	57	43	4,364	4,051	3,292	3,056	0.0011	0.0040	0.0031	0.0071	0.0082						
PARK-AND-RIDE LOTS - MARYLAND																									
MONTGOMERY COUNTY																									
Colesville	0	190	0	190	242	0	7.5	1,819	57	43	1,037	962	782	726	0.0003	0.0009	0.0007	0.0017	0.0020						
Damascus	50	0	0		0	0	7.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000						
Gaithersburg	50	259	259	517	330	330	7.5	4,948	57	43	2,821	2,618	2,128	1,975	0.0006	0.0026	0.0020	0.0046	0.0052						
Gaithersburg	50	175	175	350	223	223	7.5	3,350	57	43	1,909	1,772	1,440	1,337	0.0004	0.0017	0.0014	0.0031	0.0035						
Germantown Town	50	0	0		0	0	7.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000						
Greencastle	50	75	75	150	96	96	7.5	1,436	57	43	818	760	617	573	0.0002	0.0007	0.0006	0.0013	0.0015						
Milestone Shopping	50	88	88	175	112	112	7.5	1,675	57	43	955	886	720	669	0.0002	0.0009	0.0007	0.0016	0.0018						
PARK-AND-RIDE LOTS - MAYLAND																									
PRINCE GEORGE'S COUNTY																									
Hampton Mall	0	100	0	100	128	0	4.5	574	57	43	327	304	247	229	0.0002	0.0003	0.0002	0.0005	0.0007						
Laurel (south)	25	513	171	684	655	218	7.5	6,547	57	43	3,732	3,464	2,815	2,613	0.0010	0.0034	0.0027	0.0061	0.0070						
PARK-AND-RIDE LOTS - VIRGINIA																									
ARLINGTON COUNTY																									
Ballston Public Parking Garage	25	375	125	500	479	160	7.5	4,786	57	43	2,728	2,532	2,058	1,910	0.0007	0.0025	0.0020	0.0044	0.0051						
Washington-Lee	50	178	178	356	227	227	7.5	3,407	57	43	1,942	1,803	1,465	1,360	0.0004	0.0018	0.0014	0.0032	0.0036						
PARK-AND-RIDE LOTS - VIRGINIA																									
FAIRFAX COUNTY																									
American Legion	50	50	50	100	64	64	7.5	957	57	43	546	506	412	382	0.0001	0.0005	0.0004	0.0009	0.0010						
Canterbury Woods Pk	50	17	17	34	22	22	7.5	325	57	43	185	172	140	130	0.0000	0.0002	0.0001	0.0003	0.0003						
Centreville	50	185	185	370	236	236	7.5	3,541	57	43	2,019	1,874	1,523	1,413	0.0005	0.0018	0.0015	0.0033	0.0037						
Centreville United Methodist Ch	50	74	74	147	94	94	7.5	1,407	57	43	802	744	605	562	0.0002	0.0007	0.0006	0.0013	0.0015						
Fairfax County Government Ce	50	85	85	170	108	108	7.5	1,627	57	43	927	861	700	649	0.0002	0.0008	0.0007	0.0015	0.0017						
Greenbriar Park	50	28	28	55	35	35	7.5	526	57	43	300	279	226	210	0.0001	0.0003	0.0002	0.0005	0.0006						
Herdon-Monroe	50	873	873	1,745	1113	1113	7.5	16,702	57	43	9,520	8,836	7,182	6,666	0.0021	0.0086	0.0068	0.0155	0.0176						
Michael's	50	100	100	200	128	128	7.5	1,914	57	43	1,091	1,013	823	764	0.0002	0.0010	0.0008	0.0018	0.0020						
Parkwood Baptist	50	9	9	18	11	11	7.5	172	57	43	98	91	74	69	0.0000	0.0001	0.0001	0.0002	0.0002						
South Run District Pk	50	170	170	340	217	217	7.5	3,254	57	43	1,855	1,722	1,399	1,299	0.0004	0.0017	0.0013	0.0030	0.0034						
St Paul Chung Catholic Church	50	50	50	100	64	64	7.5	957	57	43	546	506	412	382	0.0001	0.0005	0.0004	0.0009	0.0010						
Stringfellow Rd	50	181	181	361	230	230	7.5	3,455	57	43	1,969	1,828	1,486	1,379	0.0004	0.0018	0.0014	0.0032	0.0036						
Sully Station	50	70	70	140	89	89	7.5	1,340	57	43	764	709	576	535	0.0002	0.0007	0.0005	0.0012	0.0014						

SEASON 3 (Oct-Dec)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

06/15/09

															E M I S S I O N S											
LOCATION	OUTSIDE MSA (%)	INSIDE MSA	2002		2010		AVERAGE TRIP LENGTH	2010 VMT	ARTERIAL		FREEWAY VMT	ARTERIAL VMT	Adj.Art VMT	FREEWAY VMT	Adj.Fwy VMT	COLD START Rate (gm/mile)	RUNNING		Total Running Emission (tons/day)	TOTAL (tons/day)						
			OUTSIDE MSA	Total	INSIDE Growth Rate	OUTSIDE Growth Rate			%																	
					1.28	1.28						Wk Days = 61			0.7388	0.4434	0.4659									
COMMUTER RAIL LOTS															Seasonal adj = 0.9282											
Sydenstricker Rd	50	84	84	167	107	107	7.5	1,598	57	43	911	846	687	638	0.0002	0.0008	0.0007	0.0015	0.0017							
Wakefield Chapel Pk	50	25	25	50	32	32	7.5	479	57	43	273	253	206	191	0.0001	0.0002	0.0002	0.0004	0.0005							
PARK-AND-RIDE LOTS - VIRGINIA																										
LOUDOUN COUNTY																										
Ashburn Farm	50	10	10	20	13	13	7.5	191	57	43	109	101	82	76	0.0000	0.0001	0.0001	0.0002	0.0002							
Ashburn Village	50	20	20	40	26	26	7.5	383	57	43	218	203	165	153	0.0000	0.0002	0.0002	0.0004	0.0004							
Cascades	50	28	28	55	35	35	7.5	526	57	43	300	279	226	210	0.0001	0.0003	0.0002	0.0005	0.0006							
Dulles North Transit	50	375	375	750	479	479	7.5	7,178	57	43	4,092	3,798	3,087	2,865	0.0009	0.0037	0.0029	0.0067	0.0076							
Hamilton	50	25	25	50	32	32	7.5	479	57	43	273	253	206	191	0.0001	0.0002	0.0002	0.0004	0.0005							
Innovation Avenue	50	38	38	75	48	48	7.5	718	57	43	409	380	309	287	0.0001	0.0004	0.0003	0.0007	0.0008							
Leesburg	50	25	25	50	32	32	7.5	479	57	43	273	253	206	191	0.0001	0.0002	0.0002	0.0004	0.0005							
Leesburg Kohls	50	600	600	1200	766	766	7.5	11,485	57	43	6,547	6,077	4,939	4,584	0.0015	0.0059	0.0047	0.0106	0.0121							
Purcellville	50	18	18	35	22	22	7.5	335	57	43	191	177	144	134	0.0000	0.0002	0.0001	0.0003	0.0004							
Sterling Park SC	50	23	23	45	29	29	7.5	431	57	43	245	228	185	172	0.0001	0.0002	0.0002	0.0004	0.0005							
Sterling Shaw Rd	50	24	24	48	31	31	7.5	459	57	43	262	243	198	183	0.0001	0.0002	0.0002	0.0004	0.0005							
PARK-AND-RIDE LOTS - VIRGINIA																										
PRINCE WILLIAM COUNTY																										
Brittany	50	48	48	95	61	61	7.5	909	57	43	518	481	391	363	0.0001	0.0005	0.0004	0.0008	0.0010							
Dale City	50	294	294	587	375	375	7.5	5,618	57	43	3,202	2,972	2,416	2,242	0.0007	0.0029	0.0023	0.0052	0.0059							
Harbor Drive	50	100	100	200	128	128	7.5	1,914	57	43	1,091	1,013	823	764	0.0002	0.0010	0.0008	0.0018	0.0020							
Lindendale	50	108	108	216	138	138	7.5	2,067	57	43	1,178	1,094	889	825	0.0003	0.0011	0.0008	0.0019	0.0022							
Montclair	50	25	25	50	32	32	7.5	479	57	43	273	253	206	191	0.0001	0.0002	0.0002	0.0004	0.0005							
PRTC Transit Center	50	93	93	185	118	118	7.5	1,771	57	43	1,009	937	761	707	0.0002	0.0009	0.0007	0.0016	0.0019							
Tackett's Mill	50	85	85	169	108	108	7.5	1,618	57	43	922	856	696	646	0.0002	0.0008	0.0007	0.0015	0.0017							
Triangle	50	15	15	29	19	19	7.5	278	57	43	158	147	119	111	0.0000	0.0001	0.0001	0.0003	0.0003							
I-95 / Rt 123	50	282	282	563	359	359	7.5	5,389	57	43	3,071	2,851	2,317	2,151	0.0007	0.0028	0.0022	0.0050	0.0057							
US 1 / VA 234	50	137	137	274	175	175	7.5	2,622	57	43	1,495	1,387	1,128	1,047	0.0003	0.0014	0.0011	0.0024	0.0028							
MARC TRAIN COMMUTER LOTS																										
College Park	25	431	144	574	549	183	7.5	5,494	57	43	3,131	2,907	2,362	2,193	0.0008	0.0028	0.0023	0.0051	0.0059							
Frederick	0	0	0	0	0	0	7.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000							
Greenbelt	60	1346	2018	3364	1717	2576	7.5	32,197	57	43	18,352	17,035	13,845	12,851	0.0038	0.0167	0.0132	0.0299	0.0337							
Harpers Ferry		98	0	98	125	0	7.5	938	57	43	535	496	403	374	0.0002	0.0005	0.0004	0.0009	0.0010							
Muirkirk	60	260	390	650	332	498	7.5	6,221	57	43	3,546	3,291	2,675	2,483	0.0007	0.0032	0.0026	0.0058	0.0065							
Seabrook	0	264	0	264	337	0	4.5	1,516	57	43	864	802	652	605	0.0004	0.0008	0.0006	0.0014	0.0018							
Silver Spring	0	0	0	0	0	0	4.5	0	57	43	0	0	0	0	0.0000	0.0000	0.0000	0.0000	0.0000							
Union Station	0	781	0	781	997	0	7.5	7,475	57	43	4,261	3,955	3,214	2,983	0.0013	0.0039	0.0031	0.0069	0.0082							
VIRGINIA RAILWAY EXPRESS COMMUTER LOTS																										
Backlick Road	50	110	110	220	140	140	7.5	2,106	57	43	1,200	1,114	905	840	0.0003	0.0011	0.0009	0.0020	0.0022							
Broad Run	50	198	198	396	253	253	7.5	3,790	57	43	2,160	2,005	1,630	1,513	0.0005	0.0020	0.0016	0.0035	0.0040							
Brooke	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,519	1,235	1,146	0.0004	0.0015	0.0012	0.0027	0.0030							
Burke Center	50	275	275	550	351	351	7.5	5,264	57	43	3,001	2,785	2,264	2,101	0.0007	0.0027	0.0022	0.0049	0.0056							
Franconia/Springfield (operated	50	1900	1900	3800	2425	2425	7.5	36,370	57	43	20,731	19,243	15,639	14,516	0.0046	0.0188	0.0149	0.0337	0.0384							
Leeland Road	50	326	326	652	416	416	7.5	6,240	57	43	3,557	3,302	2,683	2,491	0.0008	0.0032	0.0026	0.0058	0.0066							
Lorton	50	100	100	200	128	128	7.5	1,914	57	43	1,091	1,013	823	764	0.0002	0.0010	0.0008	0.0018	0.0020							
Manassas	50	187	187	374	239	239	7.5	3,580	57	43	2,040	1,894	1,539	1,429	0.0005	0.0019	0.0015	0.0033	0.0038							
Manassas Park	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,519	1,235	1,146	0.0004	0.0015	0.0012	0.0027	0.0030							
Quantico	50	109	109	217	138	138	7.5	2,077	57	43	1,184	1,099	893	829	0.0003	0.0011	0.0009	0.0019	0.0022							
Rippon	50	150	150	300	191	191	7.5	2,871	57	43	1,637	1,519	1,235	1,146	0.0004	0.0015	0.0012	0.0027	0.0030							
Rolling Road	50	185	185	370	236	236	7.5	3,541	57	43	2,019	1,874	1,523	1,413	0.0005	0.0018	0.0015	0.0033	0.0037							
Woodbridge	50	294	294	588	375	375	7.5	5,628	57	43	3,208	2,978	2,420	2,246	0.0007	0.0029	0.0023	0.0052	0.0059							
METRORAIL PARKING LOTS																										
Anacostia	25	861	287	1148	1099	366	7.5	10,988	57	43	6,263	5,813	4,725	4,385	0.0016	0.0057	0.0045	0.0102	0.0118							
Branch Avenue	50	1611	1611	3222	2056	2056	7.5	30,838	57	43	17,578	16,316	13,260	12,308	0.0039	0.0159	0.0126	0.0286	0.0325							
Capitol Heights	50	194	194	387	247	247	7.5	3,704	57	43	2,111	1,960	1,593	1,478	0.0005	0.0019	0.0015	0.0034	0.0039							
College Park	25	465	155	620	593	198	7.5	5,934	57	43	3,382	3,140	2,552	2,368	0.0009	0.0031	0.0024	0.0055	0.0064							
Congress Heights	0	66	0	66	84	0	4.5	379	57	43	216	201	163	151	0.0001	0.0002	0.0002	0.0004	0.0005							
Deanwood	0	194	0	194	248	0	7.5	1,857	57	43	1,058	982	798	741	0.0003	0.0010	0.0008	0.0017	0.0020							
East Falls Church	50	221	221	442	282	282	7.5	4,230	57	43	2,411	2,238	1,819	1,688	0.0005	0.0022	0.0017	0.0039	0.0045							
Forest Glen	50	329	329	658	420	420	7.5	6,298	57	43	3,590	3,332	2,708	2,514	0.0008	0.0033	0.0026	0.0058	0.0066							
Franconia - Springfield	50	1987	1987	3973	2535	2535	4.5	22,816	57	43	13,005	12,071	9,811	9,106	0.0049	0.0118	0.0094	0.0212	0.0260							

SEASON 3 (Oct-Dec)
2010 Precursor NOx
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

06/15/09

LOCATION	2002				2010		AVERAGE	2010	ARTERIAL	FREEWAY	ARTERIAL	Adj.Art	FREEWAY	Adj.Fwy	E M I S S I O N S				TOTAL
	OUTSIDE	INSIDE	OUTSIDE	Total	INSIDE	OUTSIDE	TRIP LENGTH	VTMT	%		VTMT	VTMT	VTMT	VTMT	COLD START	RUNNING			TOTAL (tons/day)
	MSA (%)	MSA	MSA		Growth Rate	Growth Rate										Arterial	Freeway	Total Running	
															Rate (gm/mile)	Rate (gm/mile)	Rate (gm/mile)	Emission (tones/day)	
					1.28	1.28						Wk Days =	61		0.7388	0.4434	0.4659		
COMMUTER RAIL LOTS												Seasonal adj =	0.9282						
Glenmont	50	925	925	1850	1180	1180	4.5	10,624	57	43	6,056	5,621	4,568	4,240	0.0023	0.0055	0.0044	0.0098	0.0121
Greenbelt	50	1783	1783	3565	2275	2275	7.5	34,121	57	43	19,449	18,053	14,672	13,619	0.0044	0.0176	0.0140	0.0316	0.0360
Naylor Road	50	216	216	431	275	275	7.5	4,125	57	43	2,351	2,183	1,774	1,646	0.0005	0.0021	0.0017	0.0038	0.0044
Prince George's Plaza	25	927	309	1236	1183	394	7.5	11,830	57	43	6,743	6,259	5,087	4,722	0.0018	0.0061	0.0048	0.0110	0.0127
Southern Avenue	50	1090	1090	2180	1391	1391	4.5	12,519	57	43	7,136	6,623	5,383	4,997	0.0027	0.0065	0.0051	0.0116	0.0143
Suitland	50	1033	1033	2065	1318	1318	4.5	11,859	57	43	6,759	6,274	5,099	4,733	0.0025	0.0061	0.0049	0.0110	0.0135
Van Dorn Street	50	204	204	407	260	260	4.5	2,337	57	43	1,332	1,237	1,005	933	0.0005	0.0012	0.0010	0.0022	0.0027
West Hyattsville	25	453	151	604	578	193	7.5	5,781	57	43	3,295	3,059	2,486	2,307	0.0009	0.0030	0.0024	0.0054	0.0062
Wheaton	25	759	253	1012	969	323	7.5	9,686	57	43	5,521	5,125	4,165	3,866	0.0014	0.0050	0.0040	0.0090	0.0104
				108,749				912,453							0.1527	0.4719	0.3741	0.8460	0.9986
Seasonal Total (tons/season) =																			60.92

Bold figures: New numbers taken from P & R directory
Figures in bracket: Carry forward figures from conformity doc.

Park lot Growth Rate	
Transit trips 2010	1161947
Transit trips 2000	863783
Annual growth rate	0.03451839
Growth factor (2002-2010)	1.27614713

SEASON 1 (Jan-Apr)
2010 PM AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ WINTER VMT	RUNNING Rate (gm/mile)	TOTAL (tons/day)
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 83	0.0115	
COMMUTER RAIL LOTS									Seasonal adj = 0.9216		
BRUNSWICK 25%	25	305	102	407	390	130	7.5	3,895	3,590	41	0.0000
PT OF ROCKS 25%	25	204	68	272	260	87	7.5	2,603	2,399	28	0.0000
DICKERSON	0	15	0	15	19	0	7.5	144	132	2	0.0000
BARNESVILLE	0	46	0	46	59	0	7.5	440	406	5	0.0000
GERMANTOWN	0	386	0	386	493	0	7.5	3,694	3,405	39	0.0000
MET GROVE	0	352	0	352	449	0	7.5	3,369	3,105	36	0.0000
WAS GROVE	0	15	0	15	19	0	7.5	144	132	2	0.0000
GARRETT PARK	0	22	0	22	28	0	7.5	211	194	2	0.0000
BOWIE 50%	50	188	188	375	239	239	7.5	3,589	3,308	38	0.0000
SEABROOK 15%	15	224	40	264	286	51	7.5	2,527	2,329	27	0.0000
KENSINGTON	0	45	0	45	57	0	7.5	431	397	5	0.0000
LAUREL 30%	30	209	90	299	267	114	7.5	2,862	2,637	30	0.0000
GAITHESBURG	0	280	0	280	357	0	7.5	2,680	2,470	28	0.0000
BERWYN HEIGHTS	0	30	0	30	38	0	4.5	172	159	2	0.0000
RIVERDALE	0	65	0	65	83	0	4.5	373	344	4	0.0000
METRO RAIL LOTS											
ADDISON ROAD 40%	40	791	527	1318	1009	673	7.5	12,615	11,626	134	0.0001
ARCHIVES	0	12	0	12	15	0	4.5	69	64	1	0.0000
ARLING	0	10	0	10	13	0	4.5	57	53	1	0.0000
BALLSTON	0	1175	0	1175	1499	0	4.5	6,748	6,219	72	0.0001
BENN.RD	0	520	0	520	664	0	4.5	2,986	2,752	32	0.0000
BETH	0	395	0	395	504	0	4.5	2,268	2,091	24	0.0000
BRADD RD	0	10	0	10	13	0	4.5	57	53	1	0.0000
BROOKLAND	0	27	0	27	34	0	4.5	155	143	2	0.0000
CHEVERLY	0	557	0	557	711	0	4.5	3,199	2,948	34	0.0000
CLARENDON	0	554	0	554	707	0	4.5	3,181	2,932	34	0.0000
CLEVELAND PK	0	366	0	366	467	0	4.5	2,102	1,937	22	0.0000
COURT HOUSE	0	256	0	256	327	0	4.5	1,470	1,355	16	0.0000
CRYSTAL CITY	0	347	0	347	443	0	4.5	1,993	1,836	21	0.0000
DEANWOOD	0	194	0	194	248	0	4.5	1,114	1,027	12	0.0000
DUN LORING 10%	10	1220	136	1355	1556	173	4.5	7,781	7,171	82	0.0001
DUPONT CIRCLE	0	165	0	165	211	0	4.5	948	873	10	0.0000
EASTERN MKT	0	178	0	178	227	0	4.5	1,022	942	11	0.0000
EAST FALLS CH	0	442	0	442	564	0	4.5	2,538	2,339	27	0.0000
EIS	0	352	0	352	449	0	4.5	2,021	1,863	21	0.0000
FARRAGUT NORTH	0	102	0	102	130	0	4.5	586	540	6	0.0000
FARRAGUT WEST	0	221	0	221	282	0	4.5	1,269	1,170	13	0.0000
FEDERAL CENTER	0	75	0	75	96	0	4.5	431	397	5	0.0000
FEDERAL TRI	0	54	0	54	69	0	4.5	310	286	3	0.0000
FOGGY	0	102	0	102	130	0	4.5	586	540	6	0.0000
FORT TROTTEEN	0	445	0	445	568	0	4.5	2,555	2,355	27	0.0000
FRH.HEIGHTS	0	679	0	679	867	0	4.5	3,899	3,594	41	0.0000
GALLERY PLACE	0	124	0	124	158	0	4.5	712	656	8	0.0000
GROSVENOR	0	716	0	716	914	0	4.5	4,112	3,789	44	0.0000
HUNT NORTH 40%	40	1873	1249	3122	2390	1594	7.5	29,881	27,538	317	0.0003
JUD SQUARE	0	110	0	110	140	0	4.5	632	582	7	0.0000
KING ST	0	30	0	30	38	0	4.5	172	159	2	0.0000

SEASON 1 (Jan-Apr)
2010 PM AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ WINTER VMT	RUNNING Rate (gm/mile)	TOTAL (tons/day)
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 83	0.0115	
COMMUTER RAIL LOTS									Seasonal adj = 0.9216		
LANDOVER 25%	25	1410	470	1880	1799	600	7.5	17,994	16,583	191	0.0002
L'ENFANT PLAZA	0	296	0	296	378	0	4.5	1,700	1,567	18	0.0000
MCPHERSON SQ	0	52	0	52	66	0	4.5	299	275	3	0.0000
MEDICAL CENTER	0	14	0	14	18	0	4.5	80	74	1	0.0000
METRO CENTER	0	177	0	177	226	0	4.5	1,016	937	11	0.0000
MINNES	0	353	0	353	450	0	4.5	2,027	1,868	21	0.0000
NAT AIR	0	87	0	87	111	0	4.5	500	460	5	0.0000
NEW CARROL 50%	50	1049	1049	2097	1338	1338	7.5	20,071	18,497	213	0.0002
PRNTAGON	0	561	0	561	716	0	4.5	3,222	2,969	34	0.0000
PENTAGON CITY	0	381	0	381	486	0	4.5	2,188	2,016	23	0.0000
POTOMAC AVE	0	533	0	533	680	0	4.5	3,061	2,821	32	0.0000
ROCKVILLE	0	667	0	667	851	0	4.5	3,830	3,530	41	0.0000
ROSSLYN	0	356	0	356	454	0	4.5	2,044	1,884	22	0.0000
SHADY GROVE 10%	10	3903	434	4337	4981	553	7.5	41,510	38,256	440	0.0005
SILVER SPRING	0	44	0	44	56	0	4.5	253	233	3	0.0000
SMITH MALL	0	120	0	120	153	0	4.5	689	635	7	0.0000
STADIUM ARM	0	976	0	976	1246	0	4.5	5,605	5,165	59	0.0001
TAKOMA PK	0	146	0	146	186	0	4.5	838	773	9	0.0000
TENLEYTON	0	17	0	17	22	0	4.5	98	90	1	0.0000
TWINBROOK	0	1136	0	1136	1450	0	4.5	6,524	6,012	69	0.0001
UNION STAT	0	378	0	378	482	0	4.5	2,171	2,001	23	0.0000
VAN NESS	0	343	0	343	438	0	4.5	1,970	1,815	21	0.0000
VIENNA 25%	25	2798	933	3731	3571	1190	7.5	35,710	32,910	378	0.0004
VA SQUARE	0	642	0	642	819	0	4.5	3,687	3,398	39	0.0000
WEST FALLS CHURCH	0	2183	0	2183	2786	0	4.5	12,536	11,553	133	0.0001
WHITE FLINT	0	1633	0	1633	2084	0	4.5	9,378	8,643	99	0.0001
WOODLEY	0	68	0	68	87	0	4.5	391	360	4	0.0000
RHODE ISLAND 30%	30	266	114	380	339	145	7.5	3,637	3,352	39	0.0000
BUS & CAR POOL LOTS											
CARTER BARRON	0	798	0	798	1018	0	4.5	4,583	4,223	49	0.0001
PG PLAZA	0	47	0	47	60	0	4.5	270	249	3	0.0000
PENN MAR SHOPP.	0	100	0	100	128	0	4.5	574	529	6	0.0000
CAP PLAZA	0	100	0	100	128	0	4.5	574	529	6	0.0000
EASTOVER	0	100	0	100	128	0	4.5	574	529	6	0.0000
FOUR MILE RUN	0	28	0	28	36	0	4.5	161	148	2	0.0000
SPRINGFIELD MALL	0	580	0	580	740	0	4.5	3,331	3,070	35	0.0000
SPRINGFIELD METH CH	0	48	0	48	61	0	4.5	276	254	3	0.0000
FRED ARMORY	0	33	0	33	42	0	7.5	316	291	3	0.0000
MYERSVILLE	0	65	0	65	83	0	7.5	622	573	7	0.0000
ROSEMONT	0	45	0	45	57	0	7.5	431	397	5	0.0000
URBANA	0	193	0	193	246	0	7.5	1,847	1,702	20	0.0000
JEFFERSON	0	40	0	40	51	0	7.5	383	353	4	0.0000
NORBECK RD	0	248	0	248	316	0	7.5	2,374	2,188	25	0.0000
MONTROSE RD	0	650	0	650	829	0	7.5	6,221	5,733	66	0.0001
BRIGG CHENNY 50%	50	215	215	430	274	274	7.5	4,116	3,793	44	0.0000
COMUS ROAD	0	30	0	30	38	0	7.5	287	265	3	0.0000
LAKEFOREST MALL	0	300	0	300	383	0	7.5	2,871	2,646	30	0.0000

SEASON 1 (Jan-Apr)
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LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ WINTER VMT	RUNNING Rate (gm/mile)	TOTAL (tons/day)
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 83	0.0115	
COMMUTER RAIL LOTS									Seasonal adj = 0.9216		
BURTONSVILLE	0	500	0	500	638	0	7.5	4,786	4,410	51	0.0001
FORCEY MEM.	0	200	0	200	255	0	7.5	1,914	1,764	20	0.0000
TECH ROAD	0	155	0	155	198	0	7.5	1,484	1,367	16	0.0000
BELTWAY	0	265	0	265	338	0	7.5	2,536	2,337	27	0.0000
LAUREL VAN DUSEN	0	62	0	62	79	0	7.5	593	547	6	0.0000
ACCOKEEK	0	450	0	450	574	0	7.5	4,307	3,969	46	0.0001
ABC DRIVE IN	0	100	0	100	128	0	7.5	957	882	10	0.0000
BOWIE 20%	20	526	131	657	671	168	7.5	6,288	5,795	67	0.0001
CLINTON 50%	50	212	212	424	271	271	7.5	4,058	3,740	43	0.0000
OXON HILL 20%	20	519	130	649	663	166	7.5	6,212	5,725	66	0.0001
EQUESTRIAN CENTER 50%	50	150	150	300	191	191	7.5	2,871	2,646	30	0.0000
BOWIE MARKET PLACE	0	50	0	50	64	0	7.5	479	441	5	0.0000
FT. WASHINGTON	0	412	0	412	526	0	7.5	3,943	3,634	42	0.0000
MONTPELIER REC PARK	0	70	0	70	89	0	7.5	670	617	7	0.0000
RESTON	0	1547	0	1547	1974	0	7.5	14,806	13,646	157	0.0002
GREENBRIAR	0	55	0	55	70	0	7.5	526	485	6	0.0000
FAIR OAKS	0	150	0	150	191	0	7.5	1,436	1,323	15	0.0000
ROLLING VALLEY	0	628	0	628	801	0	7.5	6,011	5,539	64	0.0001
SPRINGFIELD PLAZA	0	230	0	230	294	0	7.5	2,201	2,029	23	0.0000
FAIRLANES BOWL	0	35	0	35	45	0	7.5	335	309	4	0.0000
NOTTOWAY PARK	0	14	0	14	18	0	7.5	134	123	1	0.0000
HORNER RD	0	2397	0	2397	3059	0	7.5	22,942	21,143	243	0.0003
LAKE RIDGE	0	555	0	555	708	0	7.5	5,312	4,896	56	0.0001
MINNIEVILLE RD 40%	40	336	224	560	429	286	7.5	5,360	4,940	57	0.0001
GORDON BLVD	0	156	0	156	199	0	7.5	1,493	1,376	16	0.0000
HILLENDALE	0	248	0	248	316	0	7.5	2,374	2,188	25	0.0000
POTOMAC MILLS	0	946	0	946	1207	0	7.5	9,054	8,344	96	0.0001
List of new lots to be added in Conformity Document list											
PARK-AND-RIDE LOTS - MARYLAND											
PARK-AND-RIDE LOTS - MARYLAND											
CHARLES COUNTY											
301 Park & Ride	25	287	96	383	367	122	7.5	3,666	3,378	39	0.0000
Charles County Government Bld	25	26	9	35	33	11	7.5	335	309	4	0.0000
Food Lion Shopping Center	25	38	13	50	48	16	7.5	479	441	5	0.0000
La Plata Armory	25	15	5	20	19	6	7.5	191	176	2	0.0000
Laurel Springs Regional Park	25	38	13	50	48	16	7.5	479	441	5	0.0000
Life Wesleyan Church	25	38	13	50	48	16	7.5	479	441	5	0.0000
Mattawoman-Beantown Rd	25	435	145	580	555	185	7.5	5,551	5,116	59	0.0001
Smallwood Village	25	75	25	100	96	32	7.5	957	882	10	0.0000
St. Charles Towne	25	263	88	350	335	112	7.5	3,350	3,087	36	0.0000
PARK-AND-RIDE LOTS - MARYLAND											
FREDERICK COUNTY											
Frederick (north)	25	123	41	164	157	52	7.5	1,570	1,447	17	0.0000
Frederick (south)	25	173	58	230	220	73	7.5	2,201	2,029	23	0.0000
Monacacy Marcst	25	600	200	800	766	255	7.5	7,657	7,057	81	0.0001
PARK-AND-RIDE LOTS - MARYLAND											
MONTGOMERY COUNTY											
Colesville	0	190	0	190	242	0	7.5	1,819	1,676	19	0.0000
Damascus	50	0	0		0	0	7.5	0	0	0	0.0000
Gaithersburg	50	259	259	517	330	330	7.5	4,948	4,560	52	0.0001
Gaithersburg	50	175	175	350	223	223	7.5	3,350	3,087	36	0.0000
Germantown Town	50	0	0		0	0	7.5	0	0	0	0.0000

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LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ WINTER VMT	RUNNING Rate (gm/mile)	TOTAL (tons/day)
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 83	0.0115	
COMMUTER RAIL LOTS									Seasonal adj = 0.9216		
Greencastle	50	75	75	150	96	96	7.5	1,436	1,323	15	0.0000
Milestone Shopping	50	88	88	175	112	112	7.5	1,675	1,544	18	0.0000
PARK-AND-RIDE LOTS - MAYLAND											
PRINCE GEORGE'S COUNTY											
Hampton Mall	0	100	0	100	128	0	4.5	574	529	6	0.0000
Laurel (south)	25	513	171	684	655	218	7.5	6,547	6,033	69	0.0001
PARK-AND-RIDE LOTS - VIRGINIA											
ARLINGTON COUNTY					0	0		0	0	0	0.0000
Ballston Public Parking Garage	25	375	125	500	479	160	7.5	4,786	4,410	51	0.0001
Washington-Lee	50	178	178	356	227	227	7.5	3,407	3,140	36	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
FAIRFAX COUNTY											
American Legion	50	50	50	100	64	64	7.5	957	882	10	0.0000
Canterbury Woods Pk	50	17	17	34	22	22	7.5	325	300	3	0.0000
Centreville	50	185	185	370	236	236	7.5	3,541	3,264	38	0.0000
Centreville United Methodist Ch	50	74	74	147	94	94	7.5	1,407	1,297	15	0.0000
Fairfax County Government Ce	50	85	85	170	108	108	7.5	1,627	1,500	17	0.0000
Greenbriar Park	50	28	28	55	35	35	7.5	526	485	6	0.0000
Herndon-Monroe	50	873	873	1,745	1113	1113	7.5	16,702	15,392	177	0.0002
Michael's	50	100	100	200	128	128	7.5	1,914	1,764	20	0.0000
Parkwood Baptist	50	9	9	18	11	11	7.5	172	159	2	0.0000
South Run District Pk	50	170	170	340	217	217	7.5	3,254	2,999	34	0.0000
St Paul Chung Catholic Church	50	50	50	100	64	64	7.5	957	882	10	0.0000
Stringfellow Rd	50	181	181	361	230	230	7.5	3,455	3,184	37	0.0000
Sully Station	50	70	70	140	89	89	7.5	1,340	1,235	14	0.0000
Sydenstricker Rd	50	84	84	167	107	107	7.5	1,598	1,473	17	0.0000
Wakefield Chapel Pk	50	25	25	50	32	32	7.5	479	441	5	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
LOUDOUN COUNTY											
Ashburn Farm	50	10	10	20	13	13	7.5	191	176	2	0.0000
Ashburn Village	50	20	20	40	26	26	7.5	383	353	4	0.0000
Cascades	50	28	28	55	35	35	7.5	526	485	6	0.0000
Dulles North Transit	50	375	375	750	479	479	7.5	7,178	6,616	76	0.0001
Hamilton	50	25	25	50	32	32	7.5	479	441	5	0.0000
Innovation Avenue	50	38	38	75	48	48	7.5	718	662	8	0.0000
Leesburg	50	25	25	50	32	32	7.5	479	441	5	0.0000
Leesburg Kohls	50	600	600	1200	766	766	7.5	11,485	10,585	122	0.0001
Purcellville	50	18	18	35	22	22	7.5	335	309	4	0.0000
Sterling Park SC	50	23	23	45	29	29	7.5	431	397	5	0.0000
Sterling Shaw Rd	50	24	24	48	31	31	7.5	459	423	5	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
PRINCE WILLIAM COUNTY											
Brittany	50	48	48	95	61	61	7.5	909	838	10	0.0000
Dale City	50	294	294	587	375	375	7.5	5,618	5,178	60	0.0001
Harbor Drive	50	100	100	200	128	128	7.5	1,914	1,764	20	0.0000
Lindendale	50	108	108	216	138	138	7.5	2,067	1,905	22	0.0000
Montclair	50	25	25	50	32	32	7.5	479	441	5	0.0000
PRTC Transit Center	50	93	93	185	118	118	7.5	1,771	1,632	19	0.0000
Tackett's Mill	50	85	85	169	108	108	7.5	1,618	1,491	17	0.0000
Triangle	50	15	15	29	19	19	7.5	278	256	3	0.0000
I-95 / Rt 123	50	282	282	563	359	359	7.5	5,389	4,966	57	0.0001
US 1 / VA 234	50	137	137	274	175	175	7.5	2,622	2,417	28	0.0000
MARC TRAIN COMMUTER LOTS											
College Park	25	431	144	574	549	183	7.5	5,494	5,063	58	0.0001

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		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 83	0.0115	
COMMUTER RAIL LOTS									Seasonal adj = 0.9216		
Frederick	0	0	0	0	0	0	7.5	0	0	0	0.0000
Greenbelt	60	1346	2018	3364	1717	2576	7.5	32,197	29,673	341	0.0004
Harpers Ferry		98	0	98	125	0	7.5	938	864	10	0.0000
Muirkirk	60	260	390	650	332	498	7.5	6,221	5,733	66	0.0001
Seabrook	0	264	0	264	337	0	4.5	1,516	1,397	16	0.0000
Silver Spring	0	0	0	0	0	0	4.5	0	0	0	0.0000
Union Station	0	781	0	781	997	0	7.5	7,475	6,889	79	0.0001
VIRGINIA RAILWAY EXPRESS COMMUTER LOTS											
Backlick Road	50	110	110	220	140	140	7.5	2,106	1,941	22	0.0000
Broad Run	50	198	198	396	253	253	7.5	3,790	3,493	40	0.0000
Brooke	50	150	150	300	191	191	7.5	2,871	2,646	30	0.0000
Burke Center	50	275	275	550	351	351	7.5	5,264	4,851	56	0.0001
Franconia/Springfield (operated)	50	1900	1900	3800	2425	2425	7.5	36,370	33,519	385	0.0004
Leeland Road	50	326	326	652	416	416	7.5	6,240	5,751	66	0.0001
Lorton	50	100	100	200	128	128	7.5	1,914	1,764	20	0.0000
Manassas	50	187	187	374	239	239	7.5	3,580	3,299	38	0.0000
Manassas Park	50	150	150	300	191	191	7.5	2,871	2,646	30	0.0000
Quantico	50	109	109	217	138	138	7.5	2,077	1,914	22	0.0000
Rippon	50	150	150	300	191	191	7.5	2,871	2,646	30	0.0000
Rolling Road	50	185	185	370	236	236	7.5	3,541	3,264	38	0.0000
Woodbridge	50	294	294	588	375	375	7.5	5,628	5,187	60	0.0001
METRO RAIL PARKING LOTS											
Anacostia	25	861	287	1148	1099	366	7.5	10,988	10,126	116	0.0001
Branch Avenue	50	1611	1611	3222	2056	2056	7.5	30,838	28,420	327	0.0004
Capitol Heights	50	194	194	387	247	247	7.5	3,704	3,414	39	0.0000
College Park	25	465	155	620	593	198	7.5	5,934	5,469	63	0.0001
Congress Heights	0	66	0	66	84	0	4.5	379	349	4	0.0000
Deanwood	0	194	0	194	248	0	7.5	1,857	1,711	20	0.0000
East Falls Church	50	221	221	442	282	282	7.5	4,230	3,899	45	0.0000
Forest Glen	50	329	329	658	420	420	7.5	6,298	5,804	67	0.0001
Franconia - Springfield	50	1987	1987	3973	2535	2535	4.5	22,816	21,027	242	0.0003
Glenmont	50	925	925	1850	1180	1180	4.5	10,624	9,791	113	0.0001
Greenbelt	50	1783	1783	3565	2275	2275	7.5	34,121	31,446	362	0.0004
Naylor Road	50	216	216	431	275	275	7.5	4,125	3,802	44	0.0000
Prince George's Plaza	25	927	309	1236	1183	394	7.5	11,830	10,902	125	0.0001
Southern Avenue	50	1090	1090	2180	1391	1391	4.5	12,519	11,538	133	0.0001
Suitland	50	1033	1033	2065	1318	1318	4.5	11,859	10,929	126	0.0001
Van Dorn Street	50	204	204	407	260	260	4.5	2,337	2,154	25	0.0000
West Hyattsville	25	453	151	604	578	193	7.5	5,781	5,328	61	0.0001
Wheaton	25	759	253	1012	969	323	7.5	9,686	8,927	103	0.0001

108,749

912,453

9,670,5471

0.0107

Seasonal Total (tons/season)

0.8848

Bold figures: New numbers taken from P & R directory

Figures in bracket: Carry forward figures from conformity doc.

Park lot Growth Rate	
Transit trips 2010	1161947
Transit trips 2000	863783
Annual growth rate	0.034518392
Growth factor (2002-2010)	1.276147134

SEASON 2 (May-Sep)
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		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28		Wk Days =	107	0.0115	
COMMUTER RAIL LOTS								Seasonal adj =	0.9873		
BRUNSWICK 25%	25	305	102	407	390	130	7.5	3,895	3,846	44	0.0000
PT OF ROCKS 25%	25	204	68	272	260	87	7.5	2,603	2,570	30	0.0000
DICKERSON	0	15	0	15	19	0	7.5	144	142	2	0.0000
BARNESVILLE	0	46	0	46	59	0	7.5	440	435	5	0.0000
GERMANTOWN	0	386	0	386	493	0	7.5	3,694	3,648	42	0.0000
MET GROVE	0	352	0	352	449	0	7.5	3,369	3,326	38	0.0000
WAS GROVE	0	15	0	15	19	0	7.5	144	142	2	0.0000
GARRETT PARK	0	22	0	22	28	0	7.5	211	208	2	0.0000
BOWIE 50%	50	188	188	375	239	239	7.5	3,589	3,544	41	0.0000
SEABROOK 15%	15	224	40	264	286	51	7.5	2,527	2,495	29	0.0000
KENSINGTON	0	45	0	45	57	0	7.5	431	425	5	0.0000
LAUREL 30%	30	209	90	299	267	114	7.5	2,862	2,825	32	0.0000
GAITHESBURG	0	280	0	280	357	0	7.5	2,680	2,646	30	0.0000
BERWYN HEIGHTS	0	30	0	30	38	0	4.5	172	170	2	0.0000
RIVERDALE	0	65	0	65	83	0	4.5	373	369	4	0.0000
METRO RAIL LOTS											
ADDISON ROAD 40%	40	791	527	1318	1009	673	7.5	12,615	12,455	143	0.0002
ARCHIVES	0	12	0	12	15	0	4.5	69	68	1	0.0000
ARLING	0	10	0	10	13	0	4.5	57	57	1	0.0000
BALLSTON	0	1175	0	1175	1499	0	4.5	6,748	6,662	77	0.0001
BENN.RD	0	520	0	520	664	0	4.5	2,986	2,948	34	0.0000
BETH	0	395	0	395	504	0	4.5	2,268	2,240	26	0.0000
BRADD RD	0	10	0	10	13	0	4.5	57	57	1	0.0000
BROOKLAND	0	27	0	27	34	0	4.5	155	153	2	0.0000
CHEVERLY	0	557	0	557	711	0	4.5	3,199	3,158	36	0.0000
CLARENDON	0	554	0	554	707	0	4.5	3,181	3,141	36	0.0000
CLEVELAND PK	0	366	0	366	467	0	4.5	2,102	2,075	24	0.0000
COURT HOUSE	0	256	0	256	327	0	4.5	1,470	1,451	17	0.0000
CRYSTAL CITY	0	347	0	347	443	0	4.5	1,993	1,967	23	0.0000
DEANWOOD	0	194	0	194	248	0	4.5	1,114	1,100	13	0.0000
DUN LORING 10%	10	1220	136	1355	1556	173	4.5	7,781	7,682	88	0.0001
DUPONT CIRCLE	0	165	0	165	211	0	4.5	948	936	11	0.0000
EASTERN MKT	0	178	0	178	227	0	4.5	1,022	1,009	12	0.0000
EAST FALLS CH	0	442	0	442	564	0	4.5	2,538	2,506	29	0.0000
EIS	0	352	0	352	449	0	4.5	2,021	1,996	23	0.0000
FARRAGUT NORTH	0	102	0	102	130	0	4.5	586	578	7	0.0000
FARRAGUT WEST	0	221	0	221	282	0	4.5	1,269	1,253	14	0.0000
FEDERAL CENTER	0	75	0	75	96	0	4.5	431	425	5	0.0000
FEDERAL TRI	0	54	0	54	69	0	4.5	310	306	4	0.0000
FOGGY	0	102	0	102	130	0	4.5	586	578	7	0.0000
FORT TROTTER	0	445	0	445	568	0	4.5	2,555	2,523	29	0.0000
FRH.HEIGHTS	0	679	0	679	867	0	4.5	3,899	3,850	44	0.0000
GALLERY PLACE	0	124	0	124	158	0	4.5	712	703	8	0.0000
GROSVENOR	0	716	0	716	914	0	4.5	4,112	4,060	47	0.0001
HUNT NORTH 40%	40	1873	1249	3122	2390	1594	7.5	29,881	29,501	339	0.0004
JUD SQUARE	0	110	0	110	140	0	4.5	632	624	7	0.0000
KING ST	0	30	0	30	38	0	4.5	172	170	2	0.0000

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		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE			WINTER		
					Growth Rate	Growth Rate			VMT		
					1.28	1.28			Wk Days = 107	0.0115	
COMMUTER RAIL LOTS									Seasonal adj = 0.9873		
LANDOVER 25%	25	1410	470	1880	1799	600	7.5	17,994	17,765	204	0.0002
L'ENFANT PLAZA	0	296	0	296	378	0	4.5	1,700	1,678	19	0.0000
MCPHERSON SQ	0	52	0	52	66	0	4.5	299	295	3	0.0000
MEDICAL CENTER	0	14	0	14	18	0	4.5	80	79	1	0.0000
METRO CENTER	0	177	0	177	226	0	4.5	1,016	1,004	12	0.0000
MINNES	0	353	0	353	450	0	4.5	2,027	2,001	23	0.0000
NAT AIR	0	87	0	87	111	0	4.5	500	493	6	0.0000
NEW CARROL 50%	50	1049	1049	2097	1338	1338	7.5	20,071	19,816	228	0.0003
PRNTAGON	0	561	0	561	716	0	4.5	3,222	3,181	37	0.0000
PENTAGON CITY	0	381	0	381	486	0	4.5	2,188	2,160	25	0.0000
POTOMAC AVE	0	533	0	533	680	0	4.5	3,061	3,022	35	0.0000
ROCKVILLE	0	667	0	667	851	0	4.5	3,830	3,782	43	0.0000
ROSSLYN	0	356	0	356	454	0	4.5	2,044	2,018	23	0.0000
SHADY GROVE 10%	10	3903	434	4337	4981	553	7.5	41,510	40,983	471	0.0005
SILVER SPRING	0	44	0	44	56	0	4.5	253	249	3	0.0000
SMITH MALL	0	120	0	120	153	0	4.5	689	680	8	0.0000
STADIUM ARM	0	976	0	976	1246	0	4.5	5,605	5,534	64	0.0001
TAKOMA PK	0	146	0	146	186	0	4.5	838	828	10	0.0000
TENLEYTON	0	17	0	17	22	0	4.5	98	96	1	0.0000
TWINBROOK	0	1136	0	1136	1450	0	4.5	6,524	6,441	74	0.0001
UNION STAT	0	378	0	378	482	0	4.5	2,171	2,143	25	0.0000
VAN NESS	0	343	0	343	438	0	4.5	1,970	1,945	22	0.0000
VIENNA 25%	25	2798	933	3731	3571	1190	7.5	35,710	35,256	405	0.0004
VA SQUARE	0	642	0	642	819	0	4.5	3,687	3,640	42	0.0000
WEST FALLS CHURCH	0	2183	0	2183	2786	0	4.5	12,536	12,377	142	0.0002
WHITE FLINT	0	1633	0	1633	2084	0	4.5	9,378	9,259	106	0.0001
WOODLEY	0	68	0	68	87	0	4.5	391	386	4	0.0000
RHODE ISLAND 30%	30	266	114	380	339	145	7.5	3,637	3,591	41	0.0000
BUS & CAR POOL LOTS											
CARTER BARRON	0	798	0	798	1018	0	4.5	4,583	4,524	52	0.0001
PG PLAZA	0	47	0	47	60	0	4.5	270	266	3	0.0000
PENN MAR SHOPP.	0	100	0	100	128	0	4.5	574	567	7	0.0000
CAP PLAZA	0	100	0	100	128	0	4.5	574	567	7	0.0000
EASTOVER	0	100	0	100	128	0	4.5	574	567	7	0.0000
FOUR MILE RUN	0	28	0	28	36	0	4.5	161	159	2	0.0000
SPRINGFIELD MALL	0	580	0	580	740	0	4.5	3,331	3,288	38	0.0000
SPRINGFIELD METH CH	0	48	0	48	61	0	4.5	276	272	3	0.0000
FRED ARMORY	0	33	0	33	42	0	7.5	316	312	4	0.0000
MYERSVILLE	0	65	0	65	83	0	7.5	622	614	7	0.0000
ROSEMONT	0	45	0	45	57	0	7.5	431	425	5	0.0000
URBANA	0	193	0	193	246	0	7.5	1,847	1,824	21	0.0000
JEFFERSON	0	40	0	40	51	0	7.5	383	378	4	0.0000
NORBECK RD	0	248	0	248	316	0	7.5	2,374	2,343	27	0.0000
MONTROSE RD	0	650	0	650	829	0	7.5	6,221	6,142	71	0.0001
BRIGG CHENNY 50%	50	215	215	430	274	274	7.5	4,116	4,063	47	0.0001
COMUS ROAD	0	30	0	30	38	0	7.5	287	283	3	0.0000
LAKEFOREST MALL	0	300	0	300	383	0	7.5	2,871	2,835	33	0.0000

SEASON 2 (May-Sep)
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LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ WINTER	RUNNING Rate (gm/mile)	TOTAL (tons/day)
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28		Wk Days =	107	0.0115	
COMMUTER RAIL LOTS								Seasonal adj =	0.9873		
BURTONSVILLE	0	500	0	500	638	0	7.5	4,786	4,725	54	0.0001
FORCEY MEM.	0	200	0	200	255	0	7.5	1,914	1,890	22	0.0000
TECH ROAD	0	155	0	155	198	0	7.5	1,484	1,465	17	0.0000
BELTWAY	0	265	0	265	338	0	7.5	2,536	2,504	29	0.0000
LAUREL VAN DUSEN	0	62	0	62	79	0	7.5	593	586	7	0.0000
ACCOKEEK	0	450	0	450	574	0	7.5	4,307	4,252	49	0.0001
ABC DRIVE IN	0	100	0	100	128	0	7.5	957	945	11	0.0000
BOWIE 20%	20	526	131	657	671	168	7.5	6,288	6,208	71	0.0001
CLINTON 50%	50	212	212	424	271	271	7.5	4,058	4,007	46	0.0001
OXON HILL 20%	20	519	130	649	663	166	7.5	6,212	6,133	71	0.0001
EQUESTRIAN CENTER 50%	50	150	150	300	191	191	7.5	2,871	2,835	33	0.0000
BOWIE MARKET PLACE	0	50	0	50	64	0	7.5	479	472	5	0.0000
FT. WASHINGTON	0	412	0	412	526	0	7.5	3,943	3,893	45	0.0000
MONTPELIER REC PARK	0	70	0	70	89	0	7.5	670	661	8	0.0000
RESTON	0	1547	0	1547	1974	0	7.5	14,806	14,618	168	0.0002
GREENBRIAR	0	55	0	55	70	0	7.5	526	520	6	0.0000
FAIR OAKS	0	150	0	150	191	0	7.5	1,436	1,417	16	0.0000
ROLLING VALLEY	0	628	0	628	801	0	7.5	6,011	5,934	68	0.0001
SPRINGFIELD PLAZA	0	230	0	230	294	0	7.5	2,201	2,173	25	0.0000
FAIRLANES BOWL	0	35	0	35	45	0	7.5	335	331	4	0.0000
NOTTOWAY PARK	0	14	0	14	18	0	7.5	134	132	2	0.0000
HORNER RD	0	2397	0	2397	3059	0	7.5	22,942	22,651	260	0.0003
LAKE RIDGE	0	555	0	555	708	0	7.5	5,312	5,245	60	0.0001
MINNIEVILLE RD 40%	40	336	224	560	429	286	7.5	5,360	5,292	61	0.0001
GORDON BLVD	0	156	0	156	199	0	7.5	1,493	1,474	17	0.0000
HILLENDALE	0	248	0	248	316	0	7.5	2,374	2,343	27	0.0000
POTOMAC MILLS	0	946	0	946	1207	0	7.5	9,054	8,939	103	0.0001
List of new lots to be added in Conformity Document list											
PARK-AND-RIDE LOTS - MARYLAND											
PARK-AND-RIDE LOTS - MARYLAND											
CHARLES COUNTY											
301 Park & Ride	25	287	96	383	367	122	7.5	3,666	3,619	42	0.0000
Charles County Government Bld	25	26	9	35	33	11	7.5	335	331	4	0.0000
Food Lion Shopping Center	25	38	13	50	48	16	7.5	479	472	5	0.0000
La Plata Armory	25	15	5	20	19	6	7.5	191	189	2	0.0000
Laurel Springs Regional Park	25	38	13	50	48	16	7.5	479	472	5	0.0000
Life Wesleyan Church	25	38	13	50	48	16	7.5	479	472	5	0.0000
Mattawoman-Beantown Rd	25	435	145	580	555	185	7.5	5,551	5,481	63	0.0001
Smallwood Village	25	75	25	100	96	32	7.5	957	945	11	0.0000
St. Charles Towne	25	263	88	350	335	112	7.5	3,350	3,307	38	0.0000
PARK-AND-RIDE LOTS - MARYLAND											
FREDERICK COUNTY											
Frederick (north)	25	123	41	164	157	52	7.5	1,570	1,550	18	0.0000
Frederick (south)	25	173	58	230	220	73	7.5	2,201	2,173	25	0.0000
Monacacy Marcst	25	600	200	800	766	255	7.5	7,657	7,560	87	0.0001
PARK-AND-RIDE LOTS - MARYLAND											
MONTGOMERY COUNTY											
Colesville	0	190	0	190	242	0	7.5	1,819	1,795	21	0.0000
Damascus	50	0	0	0	0	0	7.5	0	0	0	0.0000
Gaithersburg	50	259	259	517	330	330	7.5	4,948	4,885	56	0.0001
Gaithersburg	50	175	175	350	223	223	7.5	3,350	3,307	38	0.0000
Germantown Town	50	0	0	0	0	0	7.5	0	0	0	0.0000

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LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ	RUNNING	TOTAL
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE			WINTER	Rate (gm/mile)	(tons/day)
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 107	0.0115	
COMMUTER RAIL LOTS								Seasonal adj =	0.9873		
Greencastle	50	75	75	150	96	96	7.5	1,436	1,417	16	0.0000
Milestone Shopping	50	88	88	175	112	112	7.5	1,675	1,654	19	0.0000
PARK-AND-RIDE LOTS - MAYLAND											
PRINCE GEORGE'S COUNTY											
Hampton Mall	0	100	0	100	128	0	4.5	574	567	7	0.0000
Laurel (south)	25	513	171	684	655	218	7.5	6,547	6,463	74	0.0001
PARK-AND-RIDE LOTS - VIRGINIA											
ARLINGTON COUNTY					0	0		0	0	0	0.0000
Ballston Public Parking Garage	25	375	125	500	479	160	7.5	4,786	4,725	54	0.0001
Washington-Lee	50	178	178	356	227	227	7.5	3,407	3,364	39	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
FAIRFAX COUNTY											
American Legion	50	50	50	100	64	64	7.5	957	945	11	0.0000
Canterbury Woods Pk	50	17	17	34	22	22	7.5	325	321	4	0.0000
Centreville	50	185	185	370	236	236	7.5	3,541	3,496	40	0.0000
Centreville United Methodist Ch	50	74	74	147	94	94	7.5	1,407	1,389	16	0.0000
Fairfax County Government Cer	50	85	85	170	108	108	7.5	1,627	1,606	18	0.0000
Greenbriar Park	50	28	28	55	35	35	7.5	526	520	6	0.0000
Herdon-Monroe	50	873	873	1,745	1113	1113	7.5	16,702	16,489	190	0.0002
Michael's	50	100	100	200	128	128	7.5	1,914	1,890	22	0.0000
Parkwood Baptist	50	9	9	18	11	11	7.5	172	170	2	0.0000
South Run District Pk	50	170	170	340	217	217	7.5	3,254	3,213	37	0.0000
St Paul Chung Catholic Church	50	50	50	100	64	64	7.5	957	945	11	0.0000
Stringfellow Rd	50	181	181	361	230	230	7.5	3,455	3,411	39	0.0000
Sully Station	50	70	70	140	89	89	7.5	1,340	1,323	15	0.0000
Sydenstricker Rd	50	84	84	167	107	107	7.5	1,598	1,578	18	0.0000
Wakefield Chapel Pk	50	25	25	50	32	32	7.5	479	472	5	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
LOUDOUN COUNTY											
Ashburn Farm	50	10	10	20	13	13	7.5	191	189	2	0.0000
Ashburn Village	50	20	20	40	26	26	7.5	383	378	4	0.0000
Cascades	50	28	28	55	35	35	7.5	526	520	6	0.0000
Dulles North Transit	50	375	375	750	479	479	7.5	7,178	7,087	82	0.0001
Hamilton	50	25	25	50	32	32	7.5	479	472	5	0.0000
Innovation Avenue	50	38	38	75	48	48	7.5	718	709	8	0.0000
Leesburg	50	25	25	50	32	32	7.5	479	472	5	0.0000
Leesburg Kohls	50	600	600	1200	766	766	7.5	11,485	11,339	130	0.0001
Purcellville	50	18	18	35	22	22	7.5	335	331	4	0.0000
Sterling Park SC	50	23	23	45	29	29	7.5	431	425	5	0.0000
Sterling Shaw Rd	50	24	24	48	31	31	7.5	459	454	5	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
PRINCE WILLIAM COUNTY											
Brittany	50	48	48	95	61	61	7.5	909	898	10	0.0000
Dale City	50	294	294	587	375	375	7.5	5,618	5,547	64	0.0001
Harbor Drive	50	100	100	200	128	128	7.5	1,914	1,890	22	0.0000
Lindendale	50	108	108	216	138	138	7.5	2,067	2,041	23	0.0000
Montclair	50	25	25	50	32	32	7.5	479	472	5	0.0000
PRTC Transit Center	50	93	93	185	118	118	7.5	1,771	1,748	20	0.0000
Tackett's Mill	50	85	85	169	108	108	7.5	1,618	1,597	18	0.0000
Triangle	50	15	15	29	19	19	7.5	278	274	3	0.0000
I-95 / Rt 123	50	282	282	563	359	359	7.5	5,389	5,320	61	0.0001
US 1 / VA 234	50	137	137	274	175	175	7.5	2,622	2,589	30	0.0000
MARC TRAIN COMMUTER LOTS											
College Park	25	431	144	574	549	183	7.5	5,494	5,424	62	0.0001

SEASON 2 (May-Sep)
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LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ	RUNNING	TOTAL	
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE			WINTER	Rate (gm/mile)	(tons/day)	
					Growth Rate	Growth Rate						
					1.28	1.28			Wk Days = 107	0.0115		
COMMUTER RAIL LOTS									Seasonal adj = 0.9873			
Frederick	0	0	0	0	0	0	7.5	0	0	0	0.0000	
Greenbelt	60	1346	2018	3364	1717	2576	7.5	32,197	31,788	366	0.0004	
Harpers Ferry		98	0	98	125	0	7.5	938	926	11	0.0000	
Muirkirk	60	260	390	650	332	498	7.5	6,221	6,142	71	0.0001	
Seabrook	0	264	0	264	337	0	4.5	1,516	1,497	17	0.0000	
Silver Spring	0	0	0	0	0	0	4.5	0	0	0	0.0000	
Union Station	0	781	0	781	997	0	7.5	7,475	7,380	85	0.0001	
VIRGINIA RAILWAY EXPRESS COMMUTER LOTS												
Backlick Road	50	110	110	220	140	140	7.5	2,106	2,079	24	0.0000	
Broad Run	50	198	198	396	253	253	7.5	3,790	3,742	43	0.0000	
Brooke	50	150	150	300	191	191	7.5	2,871	2,835	33	0.0000	
Burke Center	50	275	275	550	351	351	7.5	5,264	5,197	60	0.0001	
Franconia/Springfield (operated)	50	1900	1900	3800	2425	2425	7.5	36,370	35,908	413	0.0005	
Leeland Road	50	326	326	652	416	416	7.5	6,240	6,161	71	0.0001	
Lorton	50	100	100	200	128	128	7.5	1,914	1,890	22	0.0000	
Manassas	50	187	187	374	239	239	7.5	3,580	3,534	41	0.0000	
Manassas Park	50	150	150	300	191	191	7.5	2,871	2,835	33	0.0000	
Quantico	50	109	109	217	138	138	7.5	2,077	2,051	24	0.0000	
Rippon	50	150	150	300	191	191	7.5	2,871	2,835	33	0.0000	
Rolling Road	50	185	185	370	236	236	7.5	3,541	3,496	40	0.0000	
Woodbridge	50	294	294	588	375	375	7.5	5,628	5,556	64	0.0001	
METRORAIL PARKING LOTS												
Anacostia	25	861	287	1148	1099	366	7.5	10,988	10,848	125	0.0001	
Branch Avenue	50	1611	1611	3222	2056	2056	7.5	30,838	30,446	350	0.0004	
Capitol Heights	50	194	194	387	247	247	7.5	3,704	3,657	42	0.0000	
College Park	25	465	155	620	593	198	7.5	5,934	5,859	67	0.0001	
Congress Heights	0	66	0	66	84	0	4.5	379	374	4	0.0000	
Deanwood	0	194	0	194	248	0	7.5	1,857	1,833	21	0.0000	
East Falls Church	50	221	221	442	282	282	7.5	4,230	4,177	48	0.0001	
Forest Glen	50	329	329	658	420	420	7.5	6,298	6,218	72	0.0001	
Franconia - Springfield	50	1987	1987	3973	2535	2535	4.5	22,816	22,526	259	0.0003	
Glenmont	50	925	925	1850	1180	1180	4.5	10,624	10,489	121	0.0001	
Greenbelt	50	1783	1783	3565	2275	2275	7.5	34,121	33,688	387	0.0004	
Naylor Road	50	216	216	431	275	275	7.5	4,125	4,073	47	0.0001	
Prince George's Plaza	25	927	309	1236	1183	394	7.5	11,830	11,680	134	0.0001	
Southern Avenue	50	1090	1090	2180	1391	1391	4.5	12,519	12,360	142	0.0002	
Suitland	50	1033	1033	2065	1318	1318	4.5	11,859	11,708	135	0.0001	
Van Dorn Street	50	204	204	407	260	260	4.5	2,337	2,308	27	0.0000	
West Hyattsville	25	453	151	604	578	193	7.5	5,781	5,708	66	0.0001	
Wheaton	25	759	253	1012	969	323	7.5	9,686	9,563	110	0.0001	
				108,749				912,453	10,359.9514			0.0114
											Seasonal Total (tons/season) :	1.2219

Bold figures: New numbers taken from P & R directory
Figures in bracket: Carry forward figures from conformity doc.

Park lot Growth Rate	
Transit trips 2010	1161947
Transit trips 2000	863783
Annual growth rate	0.034518392
Growth factor (2002-2010)	1.276147134

SEASON 3 (Oct-Dec)
2010 PM AIR QUALITY EMISSIONS INVENTORY
AUTO ACCESS TO TRANSIT
2009 CLRP / FY2010-2015 TIP AIR QUALITY CONFORMITY

LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ WINTER VMT	RUNNING Rate (gm/mile)	TOTAL (tons/day)
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 61	0.0114	
COMMUTER RAIL LOTS									Seasonal adj = 0.9282		
BRUNSWICK 25%	25	305	102	407	390	130	7.5	3,895	3,616	41	0.0000
PT OF ROCKS 25%	25	204	68	272	260	87	7.5	2,603	2,416	28	0.0000
DICKERSON	0	15	0	15	19	0	7.5	144	133	2	0.0000
BARNESVILLE	0	46	0	46	59	0	7.5	440	409	5	0.0000
GERMANTOWN	0	386	0	386	493	0	7.5	3,694	3,429	39	0.0000
MET GROVE	0	352	0	352	449	0	7.5	3,369	3,127	36	0.0000
WAS GROVE	0	15	0	15	19	0	7.5	144	133	2	0.0000
GARRETT PARK	0	22	0	22	28	0	7.5	211	195	2	0.0000
BOWIE 50%	50	188	188	375	239	239	7.5	3,589	3,331	38	0.0000
SEABROOK 15%	15	224	40	264	286	51	7.5	2,527	2,345	27	0.0000
KENSINGTON	0	45	0	45	57	0	7.5	431	400	5	0.0000
LAUREL 30%	30	209	90	299	267	114	7.5	2,862	2,656	30	0.0000
GAITHESBURG	0	280	0	280	357	0	7.5	2,680	2,487	28	0.0000
BERWYN HEIGHTS	0	30	0	30	38	0	4.5	172	160	2	0.0000
RIVERDALE	0	65	0	65	83	0	4.5	373	346	4	0.0000
METRO RAIL LOTS											
ADDISON ROAD 40%	40	791	527	1318	1009	673	7.5	12,615	11,709	133	0.0001
ARCHIVES	0	12	0	12	15	0	4.5	69	64	1	0.0000
ARLING	0	10	0	10	13	0	4.5	57	53	1	0.0000
BALLSTON	0	1175	0	1175	1499	0	4.5	6,748	6,263	71	0.0001
BENN.RD	0	520	0	520	664	0	4.5	2,986	2,772	32	0.0000
BETH	0	395	0	395	504	0	4.5	2,268	2,105	24	0.0000
BRADD RD	0	10	0	10	13	0	4.5	57	53	1	0.0000
BROOKLAND	0	27	0	27	34	0	4.5	155	144	2	0.0000
CHEVERLY	0	557	0	557	711	0	4.5	3,199	2,969	34	0.0000
CLARENDON	0	554	0	554	707	0	4.5	3,181	2,953	34	0.0000
CLEVELAND PK	0	366	0	366	467	0	4.5	2,102	1,951	22	0.0000
COURT HOUSE	0	256	0	256	327	0	4.5	1,470	1,365	16	0.0000
CRYSTAL CITY	0	347	0	347	443	0	4.5	1,993	1,850	21	0.0000
DEANWOOD	0	194	0	194	248	0	4.5	1,114	1,034	12	0.0000
DUN LORING 10%	10	1220	136	1355	1556	173	4.5	7,781	7,223	82	0.0001
DUPONT CIRCLE	0	165	0	165	211	0	4.5	948	880	10	0.0000
EASTERN MKT	0	178	0	178	227	0	4.5	1,022	949	11	0.0000
EAST FALLS CH	0	442	0	442	564	0	4.5	2,538	2,356	27	0.0000
EIS	0	352	0	352	449	0	4.5	2,021	1,876	21	0.0000
FARRAGUT NORTH	0	102	0	102	130	0	4.5	586	544	6	0.0000
FARRAGUT WEST	0	221	0	221	282	0	4.5	1,269	1,178	13	0.0000
FEDERAL CENTER	0	75	0	75	96	0	4.5	431	400	5	0.0000
FEDERAL TRI	0	54	0	54	69	0	4.5	310	288	3	0.0000
FOGGY	0	102	0	102	130	0	4.5	586	544	6	0.0000
FORT TROTTER	0	445	0	445	568	0	4.5	2,555	2,372	27	0.0000
FRH.HEIGHTS	0	679	0	679	867	0	4.5	3,899	3,619	41	0.0000
GALLERY PLACE	0	124	0	124	158	0	4.5	712	661	8	0.0000
GROSVENOR	0	716	0	716	914	0	4.5	4,112	3,817	44	0.0000
HUNT NORTH 40%	40	1873	1249	3122	2390	1594	7.5	29,881	27,736	316	0.0003
JUD SQUARE	0	110	0	110	140	0	4.5	632	586	7	0.0000
KING ST	0	30	0	30	38	0	4.5	172	160	2	0.0000

SEASON 3 (Oct-Dec)
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		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 61	0.0114	
COMMUTER RAIL LOTS									Seasonal adj = 0.9282		
LANDOVER 25%	25	1410	470	1880	1799	600	7.5	17,994	16,702	190	0.0002
L'ENFANT PLAZA	0	296	0	296	378	0	4.5	1,700	1,578	18	0.0000
MCPHERSON SQ	0	52	0	52	66	0	4.5	299	277	3	0.0000
MEDICAL CENTER	0	14	0	14	18	0	4.5	80	75	1	0.0000
METRO CENTER	0	177	0	177	226	0	4.5	1,016	943	11	0.0000
MINNES	0	353	0	353	450	0	4.5	2,027	1,882	21	0.0000
NAT AIR	0	87	0	87	111	0	4.5	500	464	5	0.0000
NEW CARROL 50%	50	1049	1049	2097	1338	1338	7.5	20,071	18,630	212	0.0002
PRNTAGON	0	561	0	561	716	0	4.5	3,222	2,990	34	0.0000
PENTAGON CITY	0	381	0	381	486	0	4.5	2,188	2,031	23	0.0000
POTOMAC AVE	0	533	0	533	680	0	4.5	3,061	2,841	32	0.0000
ROCKVILLE	0	667	0	667	851	0	4.5	3,830	3,555	41	0.0000
ROSSLYN	0	356	0	356	454	0	4.5	2,044	1,898	22	0.0000
SHADY GROVE 10%	10	3903	434	4337	4981	553	7.5	41,510	38,529	439	0.0005
SILVER SPRING	0	44	0	44	56	0	4.5	253	235	3	0.0000
SMITH MALL	0	120	0	120	153	0	4.5	689	640	7	0.0000
STADIUM ARM	0	976	0	976	1246	0	4.5	5,605	5,202	59	0.0001
TAKOMA PK	0	146	0	146	186	0	4.5	838	778	9	0.0000
TENLEYTON	0	17	0	17	22	0	4.5	98	91	1	0.0000
TWINBROOK	0	1136	0	1136	1450	0	4.5	6,524	6,055	69	0.0001
UNION STAT	0	378	0	378	482	0	4.5	2,171	2,015	23	0.0000
VAN NESS	0	343	0	343	438	0	4.5	1,970	1,828	21	0.0000
VIENNA 25%	25	2798	933	3731	3571	1190	7.5	35,710	33,146	378	0.0004
VA SQUARE	0	642	0	642	819	0	4.5	3,687	3,422	39	0.0000
WEST FALLS CHURCH	0	2183	0	2183	2786	0	4.5	12,536	11,636	133	0.0001
WHITE FLINT	0	1633	0	1633	2084	0	4.5	9,378	8,704	99	0.0001
WOODLEY	0	68	0	68	87	0	4.5	391	362	4	0.0000
RHODE ISLAND 30%	30	266	114	380	339	145	7.5	3,637	3,376	38	0.0000
BUS & CAR POOL LOTS											
CARTER BARRON	0	798	0	798	1018	0	4.5	4,583	4,254	48	0.0001
PG PLAZA	0	47	0	47	60	0	4.5	270	251	3	0.0000
PENN MAR SHOPP.	0	100	0	100	128	0	4.5	574	533	6	0.0000
CAP PLAZA	0	100	0	100	128	0	4.5	574	533	6	0.0000
EASTOVER	0	100	0	100	128	0	4.5	574	533	6	0.0000
FOUR MILE RUN	0	28	0	28	36	0	4.5	161	149	2	0.0000
SPRINGFIELD MALL	0	580	0	580	740	0	4.5	3,331	3,092	35	0.0000
SPRINGFIELD METH CH	0	48	0	48	61	0	4.5	276	256	3	0.0000
FRED ARMORY	0	33	0	33	42	0	7.5	316	293	3	0.0000
MYERSVILLE	0	65	0	65	83	0	7.5	622	577	7	0.0000
ROSEMONT	0	45	0	45	57	0	7.5	431	400	5	0.0000
URBANA	0	193	0	193	246	0	7.5	1,847	1,715	20	0.0000
JEFFERSON	0	40	0	40	51	0	7.5	383	355	4	0.0000
NORBECK RD	0	248	0	248	316	0	7.5	2,374	2,203	25	0.0000
MONTROSE RD	0	650	0	650	829	0	7.5	6,221	5,775	66	0.0001
BRIGG CHENNY 50%	50	215	215	430	274	274	7.5	4,116	3,820	44	0.0000
COMUS ROAD	0	30	0	30	38	0	7.5	287	267	3	0.0000
LAKEFOREST MALL	0	300	0	300	383	0	7.5	2,871	2,665	30	0.0000

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LOCATION	OUTSIDE MSA (%)	2002			2010		AVERAGE TRIP LENGTH	2010 VMT	ADJ WINTER VMT	RUNNING Rate (gm/mile)	TOTAL (tons/day)
		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 61	0.0114	
COMMUTER RAIL LOTS									Seasonal adj = 0.9282		
BURTONSVILLE	0	500	0	500	638	0	7.5	4,786	4,442	51	0.0001
FORCEY MEM.	0	200	0	200	255	0	7.5	1,914	1,777	20	0.0000
TECH ROAD	0	155	0	155	198	0	7.5	1,484	1,377	16	0.0000
BELTWAY	0	265	0	265	338	0	7.5	2,536	2,354	27	0.0000
LAUREL VAN DUSEN	0	62	0	62	79	0	7.5	593	551	6	0.0000
ACCOKEEK	0	450	0	450	574	0	7.5	4,307	3,998	46	0.0001
ABC DRIVE IN	0	100	0	100	128	0	7.5	957	888	10	0.0000
BOWIE 20%	20	526	131	657	671	168	7.5	6,288	5,837	67	0.0001
CLINTON 50%	50	212	212	424	271	271	7.5	4,058	3,767	43	0.0000
OXON HILL 20%	20	519	130	649	663	166	7.5	6,212	5,766	66	0.0001
EQUESTRIAN CENTER 50%	50	150	150	300	191	191	7.5	2,871	2,665	30	0.0000
BOWIE MARKET PLACE	0	50	0	50	64	0	7.5	479	444	5	0.0000
FT. WASHINGTON	0	412	0	412	526	0	7.5	3,943	3,660	42	0.0000
MONTPELIER REC PARK	0	70	0	70	89	0	7.5	670	622	7	0.0000
RESTON	0	1547	0	1547	1974	0	7.5	14,806	13,743	157	0.0002
GREENBRIAR	0	55	0	55	70	0	7.5	526	489	6	0.0000
FAIR OAKS	0	150	0	150	191	0	7.5	1,436	1,333	15	0.0000
ROLLING VALLEY	0	628	0	628	801	0	7.5	6,011	5,579	64	0.0001
SPRINGFIELD PLAZA	0	230	0	230	294	0	7.5	2,201	2,043	23	0.0000
FAIRLANES BOWL	0	35	0	35	45	0	7.5	335	311	4	0.0000
NOTTOWAY PARK	0	14	0	14	18	0	7.5	134	124	1	0.0000
HORNER RD	0	2397	0	2397	3059	0	7.5	22,942	21,295	243	0.0003
LAKE RIDGE	0	555	0	555	708	0	7.5	5,312	4,931	56	0.0001
MINNIEVILLE RD 40%	40	336	224	560	429	286	7.5	5,360	4,975	57	0.0001
GORDON BLVD	0	156	0	156	199	0	7.5	1,493	1,386	16	0.0000
HILLEDALE	0	248	0	248	316	0	7.5	2,374	2,203	25	0.0000
POTOMAC MILLS	0	946	0	946	1207	0	7.5	9,054	8,404	96	0.0001
List of new lots to be added in Conformity Document list											
PARK-AND-RIDE LOTS - MARYLAND											
PARK-AND-RIDE LOTS - MARYLAND											
CHARLES COUNTY											
301 Park & Ride	25	287	96	383	367	122	7.5	3,666	3,403	39	0.0000
Charles County Government Bld	25	26	9	35	33	11	7.5	335	311	4	0.0000
Food Lion Shopping Center	25	38	13	50	48	16	7.5	479	444	5	0.0000
La Plata Armory	25	15	5	20	19	6	7.5	191	178	2	0.0000
Laurel Springs Regional Park	25	38	13	50	48	16	7.5	479	444	5	0.0000
Life Wesleyan Church	25	38	13	50	48	16	7.5	479	444	5	0.0000
Mattawoman-Beantown Rd	25	435	145	580	555	185	7.5	5,551	5,153	59	0.0001
Smallwood Village	25	75	25	100	96	32	7.5	957	888	10	0.0000
St. Charles Towne	25	263	88	350	335	112	7.5	3,350	3,109	35	0.0000
PARK-AND-RIDE LOTS - MARYLAND											
FREDERICK COUNTY											
Frederick (north)	25	123	41	164	157	52	7.5	1,570	1,457	17	0.0000
Frederick (south)	25	173	58	230	220	73	7.5	2,201	2,043	23	0.0000
Monacacy Marcst	25	600	200	800	766	255	7.5	7,657	7,107	81	0.0001
PARK-AND-RIDE LOTS - MARYLAND											
MONTGOMERY COUNTY											
Colesville	0	190	0	190	242	0	7.5	1,819	1,688	19	0.0000
Damascus	50	0	0		0	0	7.5	0	0	0	0.0000
Gaithersburg	50	259	259	517	330	330	7.5	4,948	4,593	52	0.0001
Gaithersburg	50	175	175	350	223	223	7.5	3,350	3,109	35	0.0000
Germantown Town	50	0	0		0	0	7.5	0	0	0	0.0000

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		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE			WINTER	Rate (gm/mile)	
					Growth Rate	Growth Rate			VMT		
					1.28	1.28		Wk Days = 61	0.0114		
COMMUTER RAIL LOTS								Seasonal adj = 0.9282			
Greencastle	50	75	75	150	96	96	7.5	1,436	1,333	15	0.0000
Milestone Shopping	50	88	88	175	112	112	7.5	1,675	1,555	18	0.0000
PARK-AND-RIDE LOTS - MAYLAND											
PRINCE GEORGE'S COUNTY											
Hampton Mall	0	100	0	100	128	0	4.5	574	533	6	0.0000
Laurel (south)	25	513	171	684	655	218	7.5	6,547	6,077	69	0.0001
PARK-AND-RIDE LOTS - VIRGINIA											
ARLINGTON COUNTY											
Ballston Public Parking Garage	25	375	125	500	479	160	7.5	4,786	4,442	51	0.0001
Washington-Lee	50	178	178	356	227	227	7.5	3,407	3,163	36	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
FAIRFAX COUNTY											
American Legion	50	50	50	100	64	64	7.5	957	888	10	0.0000
Canterbury Woods Pk	50	17	17	34	22	22	7.5	325	302	3	0.0000
Centreville	50	185	185	370	236	236	7.5	3,541	3,287	37	0.0000
Centreville United Methodist Ch	50	74	74	147	94	94	7.5	1,407	1,306	15	0.0000
Fairfax County Government Ce	50	85	85	170	108	108	7.5	1,627	1,510	17	0.0000
Greenbriar Park	50	28	28	55	35	35	7.5	526	489	6	0.0000
Herndon-Monroe	50	873	873	1,745	1113	1113	7.5	16,702	15,502	177	0.0002
Michael's	50	100	100	200	128	128	7.5	1,914	1,777	20	0.0000
Parkwood Baptist	50	9	9	18	11	11	7.5	172	160	2	0.0000
South Run District Pk	50	170	170	340	217	217	7.5	3,254	3,021	34	0.0000
St Paul Chung Catholic Church	50	50	50	100	64	64	7.5	957	888	10	0.0000
Stringfellow Rd	50	181	181	361	230	230	7.5	3,455	3,207	37	0.0000
Sully Station	50	70	70	140	89	89	7.5	1,340	1,244	14	0.0000
Sydenstricker Rd	50	84	84	167	107	107	7.5	1,598	1,484	17	0.0000
Wakefield Chapel Pk	50	25	25	50	32	32	7.5	479	444	5	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
LOUDOUN COUNTY											
Ashburn Farm	50	10	10	20	13	13	7.5	191	178	2	0.0000
Ashburn Village	50	20	20	40	26	26	7.5	383	355	4	0.0000
Cascades	50	28	28	55	35	35	7.5	526	489	6	0.0000
Dulles North Transit	50	375	375	750	479	479	7.5	7,178	6,663	76	0.0001
Hamilton	50	25	25	50	32	32	7.5	479	444	5	0.0000
Innovation Avenue	50	38	38	75	48	48	7.5	718	666	8	0.0000
Leesburg	50	25	25	50	32	32	7.5	479	444	5	0.0000
Leesburg Kohls	50	600	600	1200	766	766	7.5	11,485	10,661	122	0.0001
Purcellville	50	18	18	35	22	22	7.5	335	311	4	0.0000
Sterling Park SC	50	23	23	45	29	29	7.5	431	400	5	0.0000
Sterling Shaw Rd	50	24	24	48	31	31	7.5	459	426	5	0.0000
PARK-AND-RIDE LOTS - VIRGINIA											
PRINCE WILLIAM COUNTY											
Brittany	50	48	48	95	61	61	7.5	909	844	10	0.0000
Dale City	50	294	294	587	375	375	7.5	5,618	5,215	59	0.0001
Harbor Drive	50	100	100	200	128	128	7.5	1,914	1,777	20	0.0000
Lindendale	50	108	108	216	138	138	7.5	2,067	1,919	22	0.0000
Montclair	50	25	25	50	32	32	7.5	479	444	5	0.0000
PRTC Transit Center	50	93	93	185	118	118	7.5	1,771	1,644	19	0.0000
Tackett's Mill	50	85	85	169	108	108	7.5	1,618	1,501	17	0.0000
Triangle	50	15	15	29	19	19	7.5	278	258	3	0.0000
I-95 / Rt 123	50	282	282	563	359	359	7.5	5,389	5,002	57	0.0001
US 1 / VA 234	50	137	137	274	175	175	7.5	2,622	2,434	28	0.0000
MARC TRAIN COMMUTER LOTS											
College Park	25	431	144	574	549	183	7.5	5,494	5,099	58	0.0001

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		INSIDE MSA	OUTSIDE MSA	Total	INSIDE	OUTSIDE					
					Growth Rate	Growth Rate					
					1.28	1.28			Wk Days = 61	0.0114	
COMMUTER RAIL LOTS									Seasonal adj = 0.9282		
Frederick	0	0	0	0	0	0	7.5	0	0	0	0.0000
Greenbelt	60	1346	2018	3364	1717	2576	7.5	32,197	29,885	341	0.0004
Harpers Ferry		98	0	98	125	0	7.5	938	871	10	0.0000
Muirkirk	60	260	390	650	332	498	7.5	6,221	5,775	66	0.0001
Seabrook	0	264	0	264	337	0	4.5	1,516	1,407	16	0.0000
Silver Spring	0	0	0	0	0	0	4.5	0	0	0	0.0000
Union Station	0	781	0	781	997	0	7.5	7,475	6,938	79	0.0001
VIRGINIA RAILWAY EXPRESS COMMUTER LOTS											
Backlick Road	50	110	110	220	140	140	7.5	2,106	1,954	22	0.0000
Broad Run	50	198	198	396	253	253	7.5	3,790	3,518	40	0.0000
Brooke	50	150	150	300	191	191	7.5	2,871	2,665	30	0.0000
Burke Center	50	275	275	550	351	351	7.5	5,264	4,886	56	0.0001
Franconia/Springfield (operated	50	1900	1900	3800	2425	2425	7.5	36,370	33,759	385	0.0004
Leeland Road	50	326	326	652	416	416	7.5	6,240	5,792	66	0.0001
Lorton	50	100	100	200	128	128	7.5	1,914	1,777	20	0.0000
Manassas	50	187	187	374	239	239	7.5	3,580	3,323	38	0.0000
Manassas Park	50	150	150	300	191	191	7.5	2,871	2,665	30	0.0000
Quantico	50	109	109	217	138	138	7.5	2,077	1,928	22	0.0000
Rippon	50	150	150	300	191	191	7.5	2,871	2,665	30	0.0000
Rolling Road	50	185	185	370	236	236	7.5	3,541	3,287	37	0.0000
Woodbridge	50	294	294	588	375	375	7.5	5,628	5,224	60	0.0001
METRO RAIL PARKING LOTS											
Anacostia	25	861	287	1148	1099	366	7.5	10,988	10,199	116	0.0001
Branch Avenue	50	1611	1611	3222	2056	2056	7.5	30,838	28,624	326	0.0004
Capitol Heights	50	194	194	387	247	247	7.5	3,704	3,438	39	0.0000
College Park	25	465	155	620	593	198	7.5	5,934	5,508	63	0.0001
Congress Heights	0	66	0	66	84	0	4.5	379	352	4	0.0000
Deanwood	0	194	0	194	248	0	7.5	1,857	1,723	20	0.0000
East Falls Church	50	221	221	442	282	282	7.5	4,230	3,927	45	0.0000
Forest Glen	50	329	329	658	420	420	7.5	6,298	5,846	67	0.0001
Franconia - Springfield	50	1987	1987	3973	2535	2535	4.5	22,816	21,177	241	0.0003
Glenmont	50	925	925	1850	1180	1180	4.5	10,624	9,861	112	0.0001
Greenbelt	50	1783	1783	3565	2275	2275	7.5	34,121	31,671	361	0.0004
Naylor Road	50	216	216	431	275	275	7.5	4,125	3,829	44	0.0000
Prince George's Plaza	25	927	309	1236	1183	394	7.5	11,830	10,980	125	0.0001
Southern Avenue	50	1090	1090	2180	1391	1391	4.5	12,519	11,620	132	0.0001
Suitland	50	1033	1033	2065	1318	1318	4.5	11,859	11,007	125	0.0001
Van Dorn Street	50	204	204	407	260	260	4.5	2,337	2,169	25	0.0000
West Hyattsville	25	453	151	604	578	193	7.5	5,781	5,366	61	0.0001
Wheaton	25	759	253	1012	969	323	7.5	9,686	8,991	102	0.0001
				108,749				912,453		9,655.1084	0.0106
									Seasonal Total (tons/season)		0.6492

Bold figures: New numbers taken from P & R directory

Figures in bracket: Carry forward figures from conformity doc.

Park lot Growth Rate	
Transit trips 2010	1161947
Transit trips 2000	863783
Annual growth rate	0.034518392
Growth factor (2002-2010)	1.276147134

APPENDIX H

Bus Emissions Estimation

MEMORANDUM

June 10, 2009

To: Files

From: Erin Morrow, MWCOG/DTP

Subject: Transit and School Bus Emissions

Background

For the development of the HDV percentage in the VMT mix for Mobile6.2, staff divided the vehicle class into trucks and buses, with the further breakdown of buses into transit bus and school bus categories. This memo discusses the collection of information from regional transit providers and the development of ozone season NO_x and VOC, winter CO, and PM_{2.5} precursor NO_x and direct PM_{2.5} emissions estimates for transit and school buses for various analysis years.

Approach

Data Collection

In order to obtain current regional transit data, staff developed a questionnaire for transit providers and school bus operators in the region. The technique of emailing and then conducting follow-up phone calls produced a high response rate. Staff used response data to complete table a table showing daily VMT with average operating speed, by provider (Table 1).

Fleet Age Distribution

Using 2008 VIN data, staff developed regional school bus and transit bus age distributions (shown in Tables 2A and 2B respectively) and diesel sales fractions which were used in the Mobile6.2 model to develop emissions rates. A detailed description of this process can be found in a June 9, 2009 memo from Daivamani Sivasailam in the Appendix D. For simplification purposes, because the number of buses other than diesel is statistically insignificant, the fleet will be input to the Mobil6.2 model as 100 percent diesel. Emissions for buses that are not diesel (e.g. CNG buses) are accounted for using TERM analysis.

VMT Estimates

The annual VMT from the survey was divided by the number of service days for each provider to calculate a daily VMT. To account for bus VMT for providers in the region for which no survey data was received, staff estimated VMT by using data from providers with similar service type. In many cases, where VMT data was not provided, total number of buses was provided, making the estimate process more accurate. In Table 1B, estimated VMT values are shown in italics. Daily school bus VMT represents a school day in May.

The resulting daily 2001 VMT from the survey, including estimation values from providers for which no data was received, is 277,000 for transit buses (compared to 180,000 in the FY03-08 TIP), and 489,900 for school buses.

For estimating bus VMT for the future, staff used the HDBS (school bus) and HDBT (transit bus) values in the "National Average Vehicle Miles Traveled Fractions by Vehicle Class" table from EPA's *Technical Guidance on the use of Mobile 6 for Emission Inventory Preparation* to modify current data. This is shown as Table 3.

Emission Estimates

Using the survey data, staff created transit bus and school bus emission tables. In the tables, the daily VMT was adjusted from the base (survey) year (2001) using the method described above. The fleet age distributions as an input to the Mobile6.2 model to produce emission factors for each pollutant, by speed. Factors for PM_{2.5} pollutants were prepared for each of 3 seasons (Season 1: January-April, Season 2: May-September, Season 3: October-December) Using the appropriate emission factor, based on the average operating speed for each provider, staff calculated each pollutant's emissions for transit buses and school buses for each analysis year. Table 4 shows a one-year sample of bus emission factors. Tables 5A-5F show a one-year sample of transit and school bus emissions for each of the pollutants analyzed.

TABLE 1
2001 Bus
Operating Statistics

Service	Contact	Average Speed	Daily VMT
	Name		
Metrobus	Lora Byala	10	123,299
Fairfax Connector	Andy Szakos	15	18,036
PRTC Omnalink	Tim Roseboom	15	4038
Alexandria DASH	Cindy Modell	13	3,454
City of Fairfax CUE	Alex Verzosa	15	1,483
Arlington Co. ART	Jim Maslanka	16	794
Loudoun Transportation Assc.	Mark McGregor	15	4,532
Mont. Co. Ride-On	Phil McLaughlin	14.5	35,616
PG Co. The Bus	Frank Bell	15-20	9,723
Fredrick Co. TransiT	Sherry Burford	11.78	3,082
Corridor Transit (CTC)	Joe Gann	17.8	1,265
Crystal City Express		15	96
Skyline Crystal Express		15	144
PRTC OmniRide	Tim Roseboom	26.62	5,700
Loudoun Commuter Service	Sharon Affinito	25	1,866
MTA Commuter buses	Larry Dougherty	45	10,453
Lee Coaches	Joe Ann Foweler	45	70
Brooks Transit		45	750
Quicks Commuter Service	Robbie Quick	45	1,320
Eyre buses (under MTA)	Teri Lee Cosker	45	(under MTA)
Dillon buses (under MTA)	Ron Dillon Sr.	45	(under MTA)
Keller buses (under MTA)	Charles D. Keller	45	(under MTA)
National Coach Works	Jeff Bodnar	45	1,650
Greyhound / Trailways (VA)	David Cohen	55	5000
Peter Pan / Trailways	Christ Crean	55	2000
Carolina Trailways		55	500
Capitol Trailways	Ms.Gale Ellsworth	55	500
Martz / Grey Line sightseeing	Robert Lynch	55-68	5000
New World	Arnold Brown	20	299
Washington Flyer Coach Service	Nicholas Marshall	65	1,370
ShuttleUM (U. of MD)	Cynthia Trombly	11.1	1,864

TABLE 1
2001 Bus
Operating Statistics

Service	Contact	Average Speed	Daily VMT
	Name		
Georgetown U. shuttle	Diann Nock Smith	15	100
American U. shuttle	Thomas Leathers	20-25	83
George Washington U shuttle	John Kane	15	100
CIA Shuttle		15	200
EPA Shuttle		15	200
USDOT Shuttle	Franklin Weaver	15	200
Gallaudet Shuttle	Darnese Nicholson	15	100
Tourmobile	Richard Lewis	15	(Gas powered)
Old Town "trolley" buses		20	300
Metro Access - paratransit	Avon Mackel	15	5000
Fairfax Co. Fastran- paratransit	Steve Yaffe	14.53	11,427
Alexandria DOT-paratransit	Lakeshia Lewis	15	924
Arlington STAR-paratransit	Eric Smith	15	3,245
City of Ffx, City Wheels- paratransit.	Alex Verzosa	15	100
City of Falls Ch. Fare Wheels- paratransit	Letha Flippin	15	100
Loudoun Transit (LCTA)- paratransit	Mark McGregor	15	100
P.G. Co. paratransit	Frank Bell	15	3000
All buses excluding school			277,361
School buses - DC	Alfred Winder	14	10000
School buses- Mont. Co.	Qiyu C. Wu	30	27,000
School buses- P.G. Co.	Mark Dreszer	30	28,896
School buses- Fred. Co.	Richard Wandres	30	10,747
School buses- Alexandria	Velma Tsongos	25	3520
School buses- Arl. Co.	Daniel Roseboro	25	4800
School buses- Ffx. Co.	Tim Parker	30-35	24,112
School buses- Loud. Co.	J Michael Lunsfurg	30	11,906
School buses- P.W. Co.	Eward Bishop	30	8,144

Total for School Buses

129,126

Table 2A
2008 Regional Age Fractions
Vehicle Type=HDBS
Number of Decoded Vins=6484

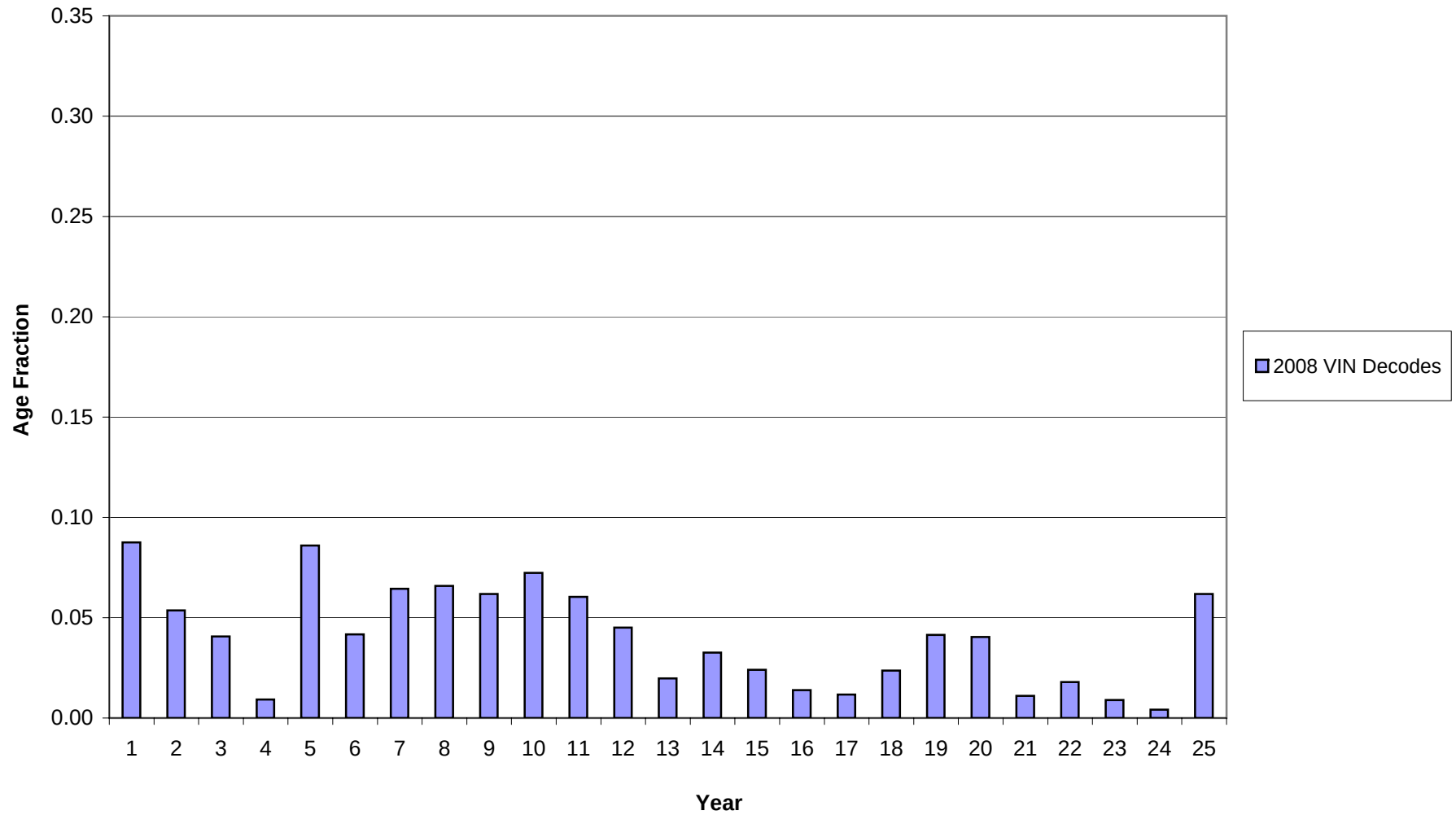


Table 2B
2008 Regional Age Fractions
Vehicle Type=HDBT
Number of Decoded Vins=6148

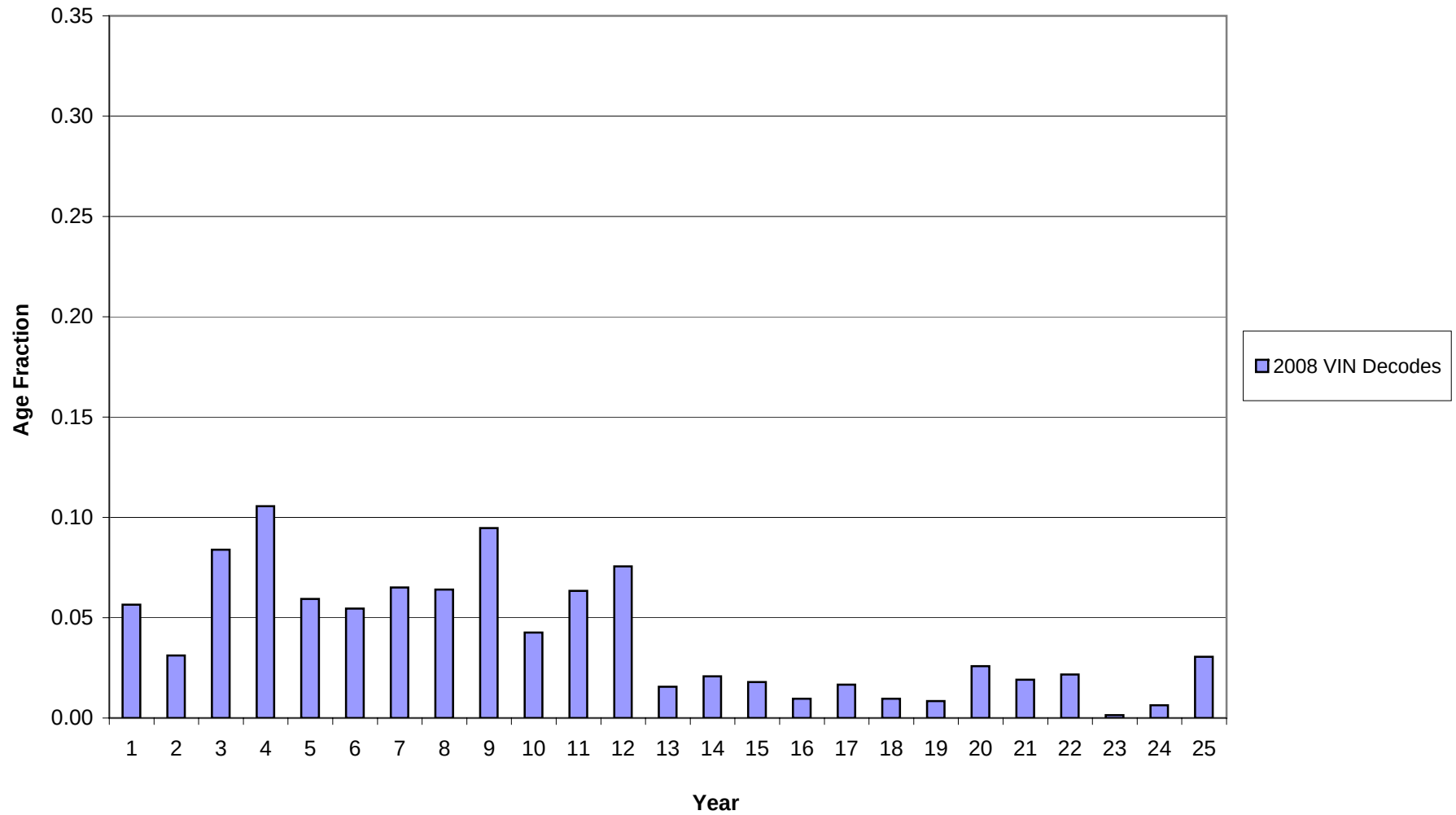


TABLE 3

National Average Vehicle Miles Traveled Fractions By Vehicle Class Using MOBILE6

Calendar Year	LDV	LDT1	LDT2	LDT3	LDT4	HDV2B	HDV3	HDV4	HDV5	HDV6	HDV7	HDV8A	HDV8B	HDBS	HDBT	MC
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1990	0.6264	0.0420	0.1397	0.0566	0.0260	0.0332	0.0034	0.0020	0.0018	0.0064	0.0079	0.0094	0.0337	0.0017	0.0008	0.0073
1991	0.6212	0.0435	0.1448	0.0560	0.0257	0.0336	0.0035	0.0021	0.0017	0.0066	0.0081	0.0095	0.0341	0.0017	0.0008	0.0072
1992	0.6109	0.0456	0.1518	0.0555	0.0255	0.0342	0.0036	0.0022	0.0017	0.0068	0.0083	0.0097	0.0346	0.0017	0.0008	0.0071
1993	0.6009	0.0477	0.1567	0.0551	0.0253	0.0348	0.0036	0.0023	0.0018	0.0070	0.0085	0.0098	0.0350	0.0017	0.0008	0.0070
1994	0.5910	0.0497	0.1655	0.0546	0.0251	0.0354	0.0037	0.0024	0.0018	0.0072	0.0087	0.0100	0.0355	0.0018	0.0008	0.0070
1995	0.5815	0.0517	0.1721	0.0542	0.0249	0.0358	0.0037	0.0025	0.0019	0.0073	0.0089	0.0101	0.0360	0.0018	0.0009	0.0069
1996	0.5721	0.0534	0.1776	0.0547	0.0252	0.0362	0.0037	0.0025	0.0019	0.0075	0.0090	0.0102	0.0364	0.0018	0.0009	0.0068
1997	0.5569	0.0557	0.1853	0.0571	0.0263	0.0367	0.0037	0.0026	0.0020	0.0077	0.0092	0.0104	0.0370	0.0018	0.0009	0.0067
1998	0.5380	0.0590	0.1983	0.0605	0.0278	0.0372	0.0038	0.0027	0.0021	0.0079	0.0095	0.0106	0.0376	0.0019	0.0009	0.0065
1999	0.5153	0.0622	0.2071	0.0638	0.0294	0.0377	0.0038	0.0028	0.0021	0.0081	0.0097	0.0107	0.0382	0.0019	0.0009	0.0064
2000	0.4953	0.0655	0.2179	0.0672	0.0309	0.0380	0.0038	0.0029	0.0022	0.0082	0.0098	0.0108	0.0386	0.0019	0.0009	0.0062
2001	0.4785	0.0683	0.2273	0.0700	0.0322	0.0381	0.0038	0.0029	0.0022	0.0083	0.0099	0.0109	0.0388	0.0019	0.0009	0.0061
2002	0.4646	0.0706	0.2349	0.0724	0.0333	0.0382	0.0038	0.0030	0.0022	0.0084	0.0100	0.0109	0.0390	0.0019	0.0009	0.0060
2003	0.4507	0.0729	0.2425	0.0748	0.0344	0.0384	0.0038	0.0030	0.0023	0.0085	0.0100	0.0110	0.0392	0.0019	0.0009	0.0059
2004	0.4365	0.0752	0.2503	0.0771	0.0355	0.0386	0.0038	0.0030	0.0023	0.0085	0.0101	0.0111	0.0394	0.0019	0.0009	0.0058
2005	0.4231	0.0774	0.2577	0.0794	0.0365	0.0387	0.0038	0.0031	0.0023	0.0086	0.0102	0.0111	0.0395	0.0020	0.0009	0.0057
2006	0.4086	0.0797	0.2654	0.0816	0.0376	0.0387	0.0038	0.0031	0.0023	0.0086	0.0102	0.0111	0.0396	0.0020	0.0009	0.0056
2007	0.3952	0.0822	0.2735	0.0843	0.0388	0.0387	0.0038	0.0031	0.0023	0.0086	0.0102	0.0111	0.0396	0.0020	0.0009	0.0056
2008	0.3807	0.0846	0.2817	0.0868	0.0399	0.0388	0.0038	0.0031	0.0024	0.0087	0.0102	0.0111	0.0397	0.0020	0.0009	0.0055
2009	0.3669	0.0869	0.2894	0.0892	0.0410	0.0389	0.0038	0.0032	0.0024	0.0087	0.0103	0.0112	0.0398	0.0020	0.0010	0.0054
2010	0.3544	0.0891	0.2965	0.0914	0.0420	0.0390	0.0038	0.0032	0.0024	0.0087	0.0103	0.0112	0.0399	0.0020	0.0010	0.0054
2011	0.3426	0.0911	0.3031	0.0934	0.0430	0.0390	0.0038	0.0032	0.0024	0.0087	0.0103	0.0112	0.0398	0.0020	0.0010	0.0053
2012	0.3325	0.0928	0.3090	0.0952	0.0438	0.0390	0.0038	0.0032	0.0024	0.0087	0.0103	0.0112	0.0399	0.0020	0.0010	0.0053
2013	0.3231	0.0944	0.3143	0.0969	0.0445	0.0390	0.0038	0.0032	0.0024	0.0087	0.0103	0.0112	0.0399	0.0020	0.0010	0.0053
2014	0.3145	0.0959	0.3191	0.0983	0.0452	0.0391	0.0038	0.0032	0.0024	0.0088	0.0103	0.0112	0.0400	0.0020	0.0010	0.0052
2015	0.3071	0.0971	0.3233	0.0996	0.0458	0.0391	0.0039	0.0032	0.0024	0.0088	0.0104	0.0112	0.0400	0.0020	0.0010	0.0052
2016	0.3004	0.0982	0.3270	0.1008	0.0463	0.0392	0.0039	0.0033	0.0024	0.0088	0.0104	0.0112	0.0400	0.0020	0.0010	0.0052
2017	0.2944	0.0992	0.3304	0.1016	0.0468	0.0392	0.0039	0.0033	0.0024	0.0088	0.0104	0.0113	0.0401	0.0020	0.0010	0.0051
2018	0.2892	0.1001	0.3332	0.1027	0.0472	0.0393	0.0039	0.0033	0.0024	0.0088	0.0104	0.0113	0.0402	0.0020	0.0010	0.0051
2019	0.2846	0.1008	0.3357	0.1035	0.0476	0.0394	0.0039	0.0033	0.0025	0.0088	0.0104	0.0113	0.0403	0.0020	0.0010	0.0051
2020 - 2050	0.2793	0.1017	0.3364	0.1043	0.0480	0.0396	0.0039	0.0033	0.0025	0.0089	0.0105	0.0114	0.0405	0.0020	0.0010	0.0051

Source: Technical Guidance on the use of Mobile 6 for Emission Inventory Preparation, U.S. EPA, January 2002.

Table 4
MWCOG Regional 2010 Ozone Season Bus Emission Factors

Road Type	Speed (mph)	Diesel Bus Emission Factors (grams/mile)			
		School Bus		Transit Bus	
		VOC	NOx	VOC	NOx
Arterial/Freeway	1.00	1.876	15.823	1.087	19.228
Arterial/Freeway	2.00	1.876	15.823	1.087	19.228
Arterial/Freeway	3.00	1.801	15.282	1.043	18.569
Arterial/Freeway	4.00	1.706	14.606	0.988	17.745
Arterial/Freeway	5.00	1.649	14.201	0.955	17.251
Arterial/Freeway	6.00	1.531	13.383	0.887	16.254
Arterial/Freeway	7.00	1.446	12.798	0.838	15.542
Arterial/Freeway	8.00	1.383	12.36	0.801	15.008
Arterial/Freeway	9.00	1.334	12.019	0.773	14.593
Arterial/Freeway	10.0	1.294	11.746	0.75	14.26
Arterial/Freeway	11.0	1.225	11.289	0.709	13.703
Arterial/Freeway	12.0	1.167	10.907	0.676	13.238
Arterial/Freeway	13.0	1.117	10.585	0.647	12.845
Arterial/Freeway	14.0	1.075	10.308	0.623	12.508
Arterial/Freeway	15.0	1.039	10.068	0.602	12.216
Arterial/Freeway	16.0	0.992	9.788	0.575	11.874
Arterial/Freeway	17.0	0.951	9.54	0.551	11.572
Arterial/Freeway	18.0	0.914	9.32	0.53	11.303
Arterial/Freeway	19.0	0.882	9.122	0.511	11.063
Arterial/Freeway	20.0	0.852	8.945	0.494	10.847
Arterial/Freeway	21.0	0.819	8.777	0.475	10.642
Arterial/Freeway	22.0	0.79	8.624	0.457	10.456
Arterial/Freeway	23.0	0.763	8.485	0.442	10.286
Arterial/Freeway	24.0	0.738	8.357	0.427	10.13
Arterial/Freeway	25.0	0.715	8.239	0.414	9.987
Arterial/Freeway	26.0	0.691	8.154	0.4	9.883
Arterial/Freeway	27.0	0.669	8.075	0.388	9.787
Arterial/Freeway	28.0	0.649	8.002	0.376	9.697
Arterial/Freeway	29.0	0.63	7.933	0.365	9.614
Arterial/Freeway	30.0	0.613	7.87	0.355	9.537
Arterial/Freeway	31.0	0.596	7.853	0.345	9.516
Arterial/Freeway	32.0	0.58	7.837	0.336	9.497
Arterial/Freeway	33.0	0.564	7.822	0.327	9.479
Arterial/Freeway	34.0	0.55	7.808	0.319	9.462
Arterial/Freeway	35.0	0.537	7.795	0.311	9.446
Arterial/Freeway	36.0	0.524	7.843	0.304	9.504
Arterial/Freeway	37.0	0.513	7.887	0.297	9.558
Arterial/Freeway	38.0	0.502	7.93	0.291	9.61
Arterial/Freeway	39.0	0.491	7.97	0.284	9.659
Arterial/Freeway	40.0	0.481	8.008	0.279	9.705
Arterial/Freeway	41.0	0.472	8.123	0.273	9.845
Arterial/Freeway	42.0	0.464	8.232	0.269	9.979
Arterial/Freeway	43.0	0.456	8.337	0.264	10.106
Arterial/Freeway	44.0	0.448	8.436	0.259	10.227
Arterial/Freeway	45.0	0.44	8.531	0.255	10.343

Table 4
MWCOG Regional 2010 Ozone Season Bus Emission Factors

Road Type	Speed (mph)	Diesel Bus Emission Factors (grams/mile)			
		School Bus		Transit Bus	
		VOC	NOx	VOC	NOx
Arterial/Freeway	46.0	0.434	8.725	0.252	10.579
Arterial/Freeway	47.0	0.429	8.911	0.248	10.806
Arterial/Freeway	48.0	0.423	9.089	0.245	11.023
Arterial/Freeway	49.0	0.418	9.26	0.242	11.231
Arterial/Freeway	50.0	0.412	9.424	0.239	11.431
Arterial/Freeway	51.0	0.409	9.719	0.237	11.79
Arterial/Freeway	52.0	0.405	10.003	0.234	12.136
Arterial/Freeway	53.0	0.401	10.275	0.232	12.468
Arterial/Freeway	54.0	0.398	10.538	0.23	12.788
Arterial/Freeway	55.0	0.395	10.791	0.229	13.097
Arterial/Freeway	56.0	0.393	11.223	0.227	13.623
Arterial/Freeway	57.0	0.391	11.64	0.226	14.131
Arterial/Freeway	58.0	0.389	12.042	0.225	14.621
Arterial/Freeway	59.0	0.388	12.431	0.225	15.095
Arterial/Freeway	60.0	0.386	12.807	0.224	15.552
Arterial/Freeway	61.0	0.386	13.434	0.224	16.316
Arterial/Freeway	62.0	0.386	14.04	0.224	17.055
Arterial/Freeway	63.0	0.386	14.627	0.224	17.771
Arterial/Freeway	64.0	0.386	15.196	0.224	18.464
Arterial/Freeway	65.0	0.386	15.748	0.224	19.136
Fwy Ramp	34.6	0.542	7.998	0.314	9.746
Local	12.9	1.136	10.695	0.658	12.979

TABLE 5A
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY ANALYSIS
2010 SCHOOL BUS CHARACTERISTICS / EMISSIONS
(8-HOUR OZONE AREA*)

Jurisdiction	2002 Daily VMT	2010 Daily VMT	Average Speed	VOC			NOx		
				factors (g/mile)	emissions (grams)	emissions (tons)	factors (g/mile)	emissions (grams)	emissions (tons)
District of Columbia	12,696	13,331	14	1.075	14330.6100	0.0158	10.308	137413.8864	0.1515
Montgomery	100,000	105,000	30	0.613	64365.0000	0.0710	7.87	826350.0000	0.9109
Prince George's	129,967	136,465	30	0.613	83653.2596	0.0922	7.87	1073982.3045	1.1839
Frederick	25,589	26,868	30	0.613	16470.3599	0.0182	7.87	211454.7015	0.2331
Charles	20,801	21,841	30	0.613	13388.5637	0.0148	7.87	171889.0635	0.1895
Calvert	25,653	26,936	30	0.613	16511.5535	0.0182	7.87	211983.5655	0.2337
Alexandria	2,028	2,129	25	0.715	1522.5210	0.0017	8.239	17544.1266	0.0193
Arlington	2,600	2,730	25	0.715	1951.9500	0.0022	8.239	22492.4700	0.0248
Fairfax	96,524	101,350	30	0.613	62127.6726	0.0685	7.87	797626.0740	0.8792
Prince William	36,114	37,920	30	0.613	23244.7761	0.0256	7.87	298428.0390	0.3290
Loudoun	28,347	29,764	30	0.613	18245.5466	0.0201	7.87	234245.4345	0.2582
TOTAL	480,319				315811.8128	0.3481		4003409.6655	4.4130

* MSA excluding Stafford County

TABLE 5B
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY ANALYSIS
2010 TRANSIT BUS CHARACTERISTICS / EMISSIONS
(8-HOUR OZONE AREA*)

06/01/09

Jurisdiction	Operator	2002 Daily VMT	2010 VMT w/o Stafford	Average Speed	VOC			NOx		
					factors (g/mile)	emissions (grams)	emissions (tons)	factors (g/mile)	emissions (grams)	emissions (tons)
District of Columbia	Metrobus	50,552	56,113	10	0.7500	42084.5400	0.0464	14.2600	800167.3872	0.8820
District of Columbia	MTA Commuter buses	2,510	2,786	45	0.2550	710.4555	0.0008	10.3430	28816.6323	0.0318
District of Columbia	Peter Pan / Trailways	200	222	55	0.2290	50.8380	0.0001	13.0970	2907.5340	0.0032
District of Columbia	Carolina Trailways	20	22	55	0.2290	5.0838	0.0000	13.0970	290.7534	0.0003
District of Columbia	Capitol Trailways	100	111	55	0.2290	25.4190	0.0000	13.0970	1453.7670	0.0016
District of Columbia	Martz / Grey Line sightseeing	500	555	55	0.2290	127.0950	0.0001	13.0970	7268.8350	0.0080
District of Columbia	New World Tours	100	111	20	0.4940	54.8340	0.0001	10.8470	1204.0170	0.0013
District of Columbia	Georgetown U. shuttle	100	111	15	0.6020	66.8220	0.0001	12.2160	1355.9760	0.0015
District of Columbia	American U. shuttle	83	92	20	0.4940	45.5122	0.0001	10.8470	999.3341	0.0011
District of Columbia	George Washington U shuttle	100	111	15	0.6020	66.8220	0.0001	12.2160	1355.9760	0.0015
District of Columbia	EPA Shuttle	200	222	15	0.6020	133.6440	0.0001	12.2160	2711.9520	0.0030
District of Columbia	USDOT Shuttle	200	222	15	0.6020	133.6440	0.0001	12.2160	2711.9520	0.0030
District of Columbia	Gallaudet Shuttle	100	111	15	0.6020	66.8220	0.0001	12.2160	1355.9760	0.0015
District of Columbia	Metro Access - paratransit	5,000	5,550	15	0.6020	3341.1000	0.0037	12.2160	67798.8000	0.0747
Maryland	Corridor Transit (CTC)	1,265	1,404	18	0.5300	744.1995	0.0008	11.3030	15871.1075	0.0175
Maryland	Peter Pan / Trailways	1,800	1,998	55	0.2290	457.5420	0.0005	13.0970	26167.8060	0.0288
Maryland	Carolina Trailways	225	250	55	0.2290	57.1928	0.0001	13.0970	3270.9758	0.0036
Maryland	Capitol Trailways	400	444	55	0.2290	101.6760	0.0001	13.0970	5815.0680	0.0064
Maryland	Martz / Grey Line sightseeing	2,250	2,498	55	0.2290	571.9275	0.0006	13.0970	32709.7575	0.0361
Maryland	New World Tours	100	111	20	0.4940	54.8340	0.0001	10.8470	1204.0170	0.0013
Montgomery	Metrobus	17,262	19,161	15	0.6020	11534.8136	0.0127	12.2160	234068.5771	0.2580
Montgomery	MTA Commuter buses	2,180	2,420	45	0.2550	617.0490	0.0007	10.3430	25027.9914	0.0276
Montgomery	Mont. Co. Ride-On	35,616	39,534	15	0.6020	23799.3235	0.0262	12.2160	482944.4122	0.5324
Prince George's	Metrobus	24,660	27,373	15	0.6020	16478.3052	0.0182	12.2160	334383.6816	0.3686

TABLE 5B
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY ANALYSIS
2010 TRANSIT BUS CHARACTERISTICS / EMISSIONS
(8-HOUR OZONE AREA*)

06/01/09

Jurisdiction	Operator	2002 Daily VMT	2010 VMT w/o Stafford	Average Speed	VOC			NOx		
					factors (g/mile)	emissions (grams)	emissions (tons)	factors (g/mile)	emissions (grams)	emissions (tons)
Prince George's	MTA Commuter buses	6,840	7,592	45	0.2550	1936.0620	0.0021	10.3430	78528.1932	0.0866
Prince George's	PG Co. The Bus	9,723	10,793	15	0.6020	6497.1031	0.0072	12.2160	131841.5465	0.1453
Prince George's	ShuttleUM (U. of MD)	1,864	2,069	11	0.7090	1466.9494	0.0016	13.7030	28352.0551	0.0313
Prince George's	P.G. Co. paratransit	3,000	3,330	15	0.6020	2004.6600	0.0022	12.2160	40679.2800	0.0448
Frederick	MTA Commuter buses	370	411	45	0.2550	104.7285	0.0001	10.3430	4247.8701	0.0047
Frederick	Fredrick Co. TransiT	3,082	3,421	12	0.6760	2312.6095	0.0025	13.2380	45287.4628	0.0499
Charles	MTA Commuter buses	2,290	2,542	45	0.2550	648.1845	0.0007	10.3430	26290.8717	0.0290
Calvert	MTA Commuter buses	1,080	1,199	45	0.2550	305.6940	0.0003	10.3430	12399.1884	0.0137
Virginia	Metrobus	30,825	34,216	15	0.6020	20597.8815	0.0227	12.2160	417979.6020	0.4607
Virginia	Lee Coaches	70	54	45	0.2550	13.8695	0.0000	10.3430	562.5558	0.0006
Virginia	Brooks Transit	750	583	45	0.2550	148.6013	0.0002	10.3430	6027.3833	0.0066
Virginia	Quicks Commuter Service	1,320	1,026	45	0.2550	261.5382	0.0003	10.3430	10608.1945	0.0117
Virginia	National Coach Works	1,650	1,282	45	0.2550	326.9228	0.0004	10.3430	13260.2432	0.0146
Virginia	Greyhound / Trailways (VA)	5,000	3,885	55	0.2290	889.6650	0.0010	13.0970	50881.8450	0.0561
Virginia	Carolina Trailways	225	175	55	0.2290	40.0349	0.0000	13.0970	2289.6830	0.0025
Virginia	Martz / Grey Line sightseeing	2,250	1,748	55	0.2290	400.3493	0.0004	13.0970	22896.8303	0.0252
Virginia	New World Tours	100	78	20	0.4940	38.3838	0.0000	10.8470	842.8119	0.0009
Alexandria	Alexandria DASH	3,454	3,834	13	0.6470	2480.5592	0.0027	12.8450	49246.9593	0.0543
Alexandria	Old Town "trolley" buses	300	333	20	0.4940	164.5020	0.0002	10.8470	3612.0510	0.0040
Alexandria	Alexandria DOT-paratransit	924	1,026	15	0.6020	617.4353	0.0007	12.2160	12529.2182	0.0138
Arlington	Arlington Co. ART	794	881	16	0.5750	506.7705	0.0006	11.8740	10465.0312	0.0115
Arlington	Crystal City Express	96	107	15	0.6020	64.1491	0.0001	12.2160	1301.7370	0.0014
Arlington	Skyline Crystal Express	144	160	15	0.6020	96.2237	0.0001	12.2160	1952.6054	0.0022
Arlington	Arlington STAR-paratransit	3,245	3,602	15	0.6020	2168.3739	0.0024	12.2160	44001.4212	0.0485

TABLE 5B
2009 CLRP/FY2010-2015 TIP AIR QUALITY CONFORMITY ANALYSIS
2010 TRANSIT BUS CHARACTERISTICS / EMISSIONS
(8-HOUR OZONE AREA*)

Jurisdiction	Operator	2002 Daily VMT	2010 VMT w/o Stafford	Average Speed	VOC			NOx		
					factors (g/mile)	emissions (grams)	emissions (tons)	factors (g/mile)	emissions (grams)	emissions (tons)
Fairfax	Fairfax Connector	18,036	20,020	15	0.6020	12052.0159	0.0133	12.2160	244563.8314	0.2696
Fairfax	Washington Flyer Coach Service	1,370	1,521	65	0.2240	340.6368	0.0004	19.1360	29100.1152	0.0321
Fairfax	Fairfax Co. Fastran- paratransit	11,427	12,684	15	0.6020	7635.7499	0.0084	12.2160	154947.3775	0.1708
Fairfax	City of Fairfax CUE	1,483	1,646	15	0.6020	990.9703	0.0011	12.2160	20109.1241	0.0222
Fairfax	City of Ffx, City Wheels- paratransit.	100	111	15	0.6020	66.8220	0.0001	12.2160	1355.9760	0.0015
Fairfax	City of Falls Ch. Fare Wheels- paratransit	100	111	15	0.6020	66.8220	0.0001	12.2160	1355.9760	0.0015
Prince William	PRTC Omnilink	4,038	4,482	15	0.6020	2698.2724	0.0030	12.2160	54754.3109	0.0604
Prince William	PRTC OmniRide	5,700	6,327	27	0.3880	2454.8760	0.0027	9.7870	61922.3490	0.0683
Loudoun	Loudoun Transportation Assc.	4,532	5,031	15	0.6020	3028.3730	0.0033	12.2160	61452.8323	0.0677
Loudoun	Loudoun Commuter Service	1,866	2,071	25	0.4140	857.5016	0.0009	9.9870	20685.6736	0.0228
Loudoun	Loudoun Transit (LCTA)- paratransit	100	111	15	0.6020	66.8220	0.0001	12.2160	1355.9760	0.0015
TOTAL		273,671	299,990			175679.6073	0.1937		3749550.4679	4.1332

* MSA excluding Stafford County

Notes:

- 1) Used WMATA percent VMT by jurisdiction from FY03-08 AQC, Appendix I (page I-3)
- 2) Assumed average freeway speed of 55 mph where higher than 55 speed limit is available,
and 45 mph where speed limit is 55

TABLE 5C
2008 CLRP / FY2009-2014 TIP AIR QUALITY CONFORMITY ANALYSIS
2010 SCHOOL BUS CHARACTERISTICS / EMISSIONS
(PM_{2.5})

Jurisdiction	2001 Annual VMT	2002 Daily VMT	2010 Daily VMT	Average Speed	WINTER (January - April)					
					PM _{2.5}			precursor NOx		
					factors (g/mile)	emissions (grams)	emissions (tons)	factors (g/mile)	emissions (grams)	emissions (tons)
District of Columbia	2,800,000	12,670	13,303	14	0.5307	7059.9910	0.0078	11.0130	146507.7828	0.1615
Montgomery	19,000,000	85,973	90,271	30	0.5307	47907.0814	0.0528	8.4240	760447.0588	0.8382
Prince George's	21,000,000	95,023	99,774	30	0.5307	52949.9321	0.0584	8.4240	840494.1176	0.9265
Frederick	6,400,000	28,959	30,407	30	0.5307	16137.1222	0.0178	8.4240	256150.5882	0.2824
Charles	3,950,000	17,873	18,767	30	0.5307	9959.6301	0.0110	8.4240	158092.9412	0.1743
Alexandria	446,264	2,019	2,120	25	0.5307	1125.2214	0.0012	8.8170	18694.3220	0.0206
Arlington	571,986	2,588	2,718	25	0.5307	1442.2200	0.0016	8.8170	23960.9076	0.0264
Fairfax	18,200,000	82,353	86,471	30	0.5307	45889.9412	0.0506	8.4240	728428.2353	0.8030
Prince William	6,900,000	31,222	32,783	30	0.5307	17397.8348	0.0192	8.4240	276162.3529	0.3044
Loudoun	6,100,000	27,602	28,982	30	0.5307	15380.6946	0.0170	8.4240	244143.5294	0.2691
TOTAL	85,368,250	386,282	405,596			215249.6687	0.2373		3453081.8360	3.8064

Jurisdiction	2001 Annual VMT	2002 Daily VMT	2010 Daily VMT	Average Speed	SUMMER (May - September)					
					PM _{2.5}			precursor NOx		
					factors (g/mile)	emissions (grams)	emissions (tons)	factors (g/mile)	emissions (grams)	emissions (tons)
District of Columbia	2,800,000	12,670	13,303	14	0.5284	7029.3937	0.0077	10.2280	136064.7964	0.1500
Montgomery	19,000,000	85,973	90,271	30	0.5284	47699.4570	0.0526	8.4180	759905.4299	0.8377
Prince George's	21,000,000	95,023	99,774	30	0.5284	52720.4525	0.0581	8.4180	839895.4751	0.9258
Frederick	6,400,000	28,959	30,407	30	0.5284	16067.1855	0.0177	8.4180	255968.1448	0.2822
Charles	3,950,000	17,873	18,767	30	0.5284	9916.4661	0.0109	8.4180	157980.3394	0.1741
Alexandria	446,264	2,019	2,120	25	0.5284	1120.3448	0.0012	8.8100	18679.4802	0.0206
Arlington	571,986	2,588	2,718	25	0.5284	1435.9696	0.0016	8.8100	23941.8846	0.0264
Fairfax	18,200,000	82,353	86,471	30	0.5284	45691.0588	0.0504	8.4180	727909.4118	0.8024
Prince William	6,900,000	31,222	32,783	30	0.5284	17322.4344	0.0191	8.4180	275965.6561	0.3042
Loudoun	6,100,000	27,602	28,982	30	0.5284	15314.0362	0.0169	8.4180	243969.6380	0.2689
TOTAL	85,368,250	386,282	405,596			214316.7985	0.2362		3440280.2562	3.7923

Jurisdiction	2001 Annual VMT	2002 Daily VMT	2010 Daily VMT	Average Speed	FALL (October - December)					
					PM _{2.5}			precursor NOx		
					factors (g/mile)	emissions (grams)	emissions (tons)	factors (g/mile)	emissions (grams)	emissions (tons)
District of Columbia	2,800,000	12,670	13,303	14	0.4554	6058.2624	0.0067	10.2280	136064.7964	0.1500
Montgomery	19,000,000	85,973	90,271	30	0.4554	41109.6380	0.0453	7.8310	706916.0633	0.7792
Prince George's	21,000,000	95,023	99,774	30	0.4554	45436.9683	0.0501	7.8310	781328.2805	0.8613
Frederick	6,400,000	28,959	30,407	30	0.4554	13847.4570	0.0153	7.8310	238119.0950	0.2625
Charles	3,950,000	17,873	18,767	30	0.4554	8546.4774	0.0094	7.8310	146964.1290	0.1620
Alexandria	446,264	2,019	2,120	25	0.4554	965.5659	0.0011	8.1950	17375.5211	0.0192
Arlington	571,986	2,588	2,718	25	0.4554	1237.5862	0.0014	8.1950	22270.5725	0.0245
Fairfax	18,200,000	82,353	86,471	30	0.4554	39378.7059	0.0434	7.8310	677151.1765	0.7464
Prince William	6,900,000	31,222	32,783	30	0.4554	14929.2896	0.0165	7.8310	256722.1493	0.2830
Loudoun	6,100,000	27,602	28,982	30	0.4554	13198.3575	0.0145	7.8310	226957.2624	0.2502
TOTAL	85,368,250	386,282	405,596			184708.3082	0.2036		3209869.0461	3.5383

2008 CLRP/FY2008-2014 TIP AIR QUALITY CONFORMITY

2010 SCHOOL BUS CHARACTERISTICS / EMISSIONS

Wintertime CO

Jurisdiction	Daily VMT	Average Speed	Wintertime CO		
			factors (g/mile)	emissions (grams)	emissions (tons)
District of Columbia *	13,331	14	4.2040	56042.6832	0.0618
Montgomery *	105,000	30	1.9670	206535.0000	0.2277
Prince George's *	136,465	30	1.9670	268427.3435	0.2959
Frederick	26,868	30	1.9670	52850.2412	0.0583
Charles	21,841	30	1.9670	42961.3454	0.0474
Calvert	26,936	30	1.9670	52982.4236	0.0584
Alexandria *	2,129	25	2.3780	5063.7132	0.0056
Arlington *	2,730	25	2.3780	6491.9400	0.0072
Fairfax	101,350	30	1.9670	199355.8434	0.2198
Prince William	37,920	30	1.9670	74588.0499	0.0822
Loudoun	29,764	30	1.9670	58546.4765	0.0645
Stafford	10,091	30	1.9670	19848.0135	0.0219
TOTAL	514,425			1043693.0732	1.1505
TOTAL FOR CO NON-ATTAINMENT AREA*:					0.5981

* The non-attainment area for wintertime CO includes:

DC, ARL, ALEX, MONT, PG

APPENDIX I

TERMs Implementation Reports



COMMONWEALTH of VIRGINIA

DAVID S. EKERN, P.E.
COMMISSIONER

DEPARTMENT OF TRANSPORTATION

14685 Avion Parkway
Chantilly, VA 20151
(703) 383-VDOT (8368)

June 1, 2009

Mr. Ronald F. Kirby
Director, Department of Transportation Planning
Metropolitan Washington Council of Governments
777 N. Capital Street, N.E.; Suite 300
Washington, D.C. 20002

RE: Implementation Status of TERMS (CMAQ and Non-CMAQ)

Dear Mr. Kirby:

Enclosed is an update to the implementation status report for all Virginia-funded Transportation Emissions Reduction Measures (TERMs) for which the region has taken credit either in the present or previous conformity analysis of the TIP and CLRP. The TIP periods covered in this report are from 2000 to 2008-2013. This submission updates the implementation status report submitted to you on June 4, 2008. The attached table shows only those TERMS that were reported as being underway in our June 4, 2008 report and contain updates as of the present.

Mr. Randy Hodgson (703-383-2216) is my point of contact on this matter should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "R. McDonald".

Robert H. McDonald, P.E.
Chief, Planning Section

Enclosure

Transportation Emission Reduction Measures - Status Report For Post Year 2000 TERMS
FROM VDOT FOR FY 2010- 2015 TIP AND 2009 CLRP Changes made during this review are in bold font.

TERM No.	CREDIT TAKEN	TIP CREDITED	AGENCY	PROJECT	IMPLEMENTATION STATUS				STATUS REPORT	Project Category *
					FULL	SCALED BACK	UNDER- WAY	REMOVED		
56	X	1995-00	VDOT	Cherry Hill VRE Access			X		Complete construction -July 2008 Developer defaulted on project, so no timetable to providing access.	C (TCM)
69	X	1995-00	ARLG / FFX CO.	Bicycle Trails and Facilities (Arlington & Fairfax Co. - 7 locations)	X		X		Projects 4 & 6 incomplete due to incomplete funding. Project #6 projected to be complete in 2008, and Project # 4 projected to be completed in mid 2009. Project 3 revised to sidewalks & wide-curb lanes only not bike lanes. All others complete. #4 - Phase 1 of project under construction. Phase 2 in final design. Possible construction in 2010 depending upon funding. #6 - Project design complete but underfunded. Negotiating with National Park Service which could result in reduced costs.	C
70	X	1995-00	VDOT	Improved Access to VRE Rail 2 Stations	X		X		Burke station completed 2001. Phase 2 completed in 2007, improved geometry on Rte. 630 between Brooke High School and Rte. 629. Phase 3 replacing Rte. 630 bridge over railroad crossing expected to be completed after Six Year Plan Only change is possibility of securing ARRA -Stimulus funds to advance bridge replacement to a Jan.2010 Ad. Otherwise, bridge replacement set for July 2012.	C
82	X	1996-01	ARLG / FF	Old Dominion Drive Bike Trail			X		Arlington completing design review and permitting. Construction anticipated in early 2008. Contract to construct Phase I of bike lanes& sidewalks awarded. Construction in summer '09. Construction of Phase 2 expected to occur in 2010.	C
117	X	1998-03	ARLG	Arlington County Four Mile Run Bike Trail	X				Construction commenced September, 2007, to be completed March, 2009. Project now complete.	C
127	X	1999-04	VDOT	VA 234 Bike Trail			X		Completion by 2008. PWC reports that trail should be finished by 12/30/09.	C
136	X	2000-05	VDOT	Columbia Pike Trail - Now named Cross County Trail	X				Construction of Phase 2 (Cross County Trail -Accotink Stream Valley-Lake Accotink dam to Hunter Village Drive) includes three bridge crossings and an underpass of Old Keen mill Rd began in spring 2008 and scheduled to be complete summer 2009. Project completed in March 2009,	C

Current updates highlighted.

Transportation Emission Reduction Measures - Status Report For Post Year 2000 TERMS

FROM VDOT FOR FY 2010- 2015 TIP AND 2009 CLRP Changes made during this review are in bold font.

TERM No.	CREDIT TAKEN	TIP CREDITED	AGENCY	PROJECT	IMPLEMENTATION STATUS				STATUS REPORT		Project Category *
					FULL	SCALED BACK	UNDER- WAY	REMOVED			
137	X	2000-05	VDOT	Lee Highway trail	X				Project complete & open to public.		C
177	X	2003-08	VDRPT	Interactive Rideshare & Kiosk Initiative			X		Phase I of project to be complete in January, 2008 and then Phase II will start. DRPT states that Phase I of TDM software System complete. Phase II mostly complete, & Phase III began in July.		C
190	X	2003-08	VDOT	Employer Vanpool Program (Bridge Bucks)	X				Pilot program started in 2004. Funded till 2008. Program completed with opening of bridge.		C
191	X	2003-08	LOU CO.	Town of Leesburg P&R Lot (150 spaces)			X		Project scheduled for completion in late 2008 or early 2009. County reports that P&R lot under construction, planned completion, Jan 2010.		C
221	X	1995-00	REGION	M-24 Sped Limit Adherence	X				This program has been underway since about 2000 and is anticipated to continue at least thru 2013.		TR

1. These TERM projects were a one-time, limited term (two years) infusion of funding from NoVa to support extra activities.

Daivamani Sivasailam

From: Lyn Erickson [lerickson@mdot.state.md.us]
Sent: Thursday, June 11, 2009 4:42 PM
To: Shiva Shrestha; Daivamani Sivasailam
Cc: L'Kiesha Markley; Greg Robinson; Howard Simons
Subject: RE: Tracking Sheet Reporting Review Request - URGENT

Hi Siva-

Thank you for the opportunity to provide comments on the TERMS Tracking Sheet. As you can see from the email below, SHA has no further comments on the TERMS Tracking Sheet. However, MDOT has one comment. Please change the status of the M-24 Speed Adherence TERM (#221) to "Stopped". MDOT no longer plans to fund this activity as we feel it is no longer warranted.

Thank you!
Lyn

Lyn Erickson, AICP
Office of Planning
Maryland Department of Transportation
7201 Corporate Center Drive
Hanover, MD 21076
Phone: 410-865-1279
Fax: 410-865-1339

-----Original Message-----

From: Shiva Shrestha
Sent: Thu 6/11/2009 3:36 PM
To: 'Daivamani Sivasailam'
Cc: Lyn Erickson; L'Kiesha Markley; Greg Robinson
Subject: FW: Tracking Sheet Reporting Review Request - URGENT

Hi Siva,

We completed our review of the attached TERMS tracking sheet, and do not have any comments at this time.

Please let me know if you have any questions.

Thanks,

Shiva

Shiva K. Shrestha, AICP
Regional Planner
Maryland State Highway Administration
Regional and Intermodal Planning Division
707 North Calvert Street, MS C-502
Baltimore, MD 21202
Phone: 410-545-5667 ~ Fax: 410-209-5025
sshrestha@sha.state.md.us

From: Daivamani Sivasailam [mailto:siva@mwkog.org]
Sent: Friday, June 05, 2009 9:34 AM
To: Daivamani Sivasailam; Lyn Erickson
Cc: Shiva Shrestha
Subject: RE: Tracking Sheet Reporting

Forgot to attach

Daivamani Sivasailam
Principal Transportation Engineer
MWCOG
202 962-3226
siva@mwkog.org

From: Daivamani Sivasailam
Sent: Friday, June 05, 2009 9:33 AM
To: 'lerickson@mdot.state.md.us'
Cc: Shiva Shrestha
Subject: Tracking Sheet Reporting

Lyn:

I dropped the ball and forgot to email you and Shiva the documents. Here it is and I will provide you a hard copy at the meeting.

Siva

Daivamani Sivasailam
Principal Transportation Engineer
MWCOG
202 962-3226
siva@mwkog.org



Please consider the environment before printing this email

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MEMORANDUM

DATE: July 8, 2009
TO: FY2010-2015 TIP Air Quality Conformity File
FROM: Nicholas W. Ramfos, Director
 Alternative Commute Programs
SUBJECT: Implementation of Commuter Connections Regional Transportation Emission Reduction Measure (TERMs)

The Commuter Connections regional TERM projects programmed and implemented for the FY95, FY96, FY97 and FY98 Transportation Improvement Programs (TIP) for the Washington metropolitan region for the purpose of reducing Nitrogen Oxides and Volatile Organic Compound emissions and achieving air quality conformity for the TIP include Employer Outreach, Guaranteed Ride Home, Telework Resource Center, Integrated Rideshare programs, and the Mass Marketing TERM (M-101a) adopted in the FY 97-02 TIP and advanced for implementation in the FY 98-03 TIP. In addition to the above pollutants the programs reduce PM 2.5, and Pre-cursor NOx which the region needs to mitigate.

Impact results for each of these TERMS were produced through a vigorous evaluation methodology implemented by Commuter Connections staff and several consulting firms.

An analysis report was completed in 2008 and the emissions benefit in 2008 is as shown below.

TERM Number	TERM Name	VOC (T/Day)	NOx (T/Day)	PM 2.5 Annual Tons	Precursor NOx Annual Tons
M-92	Telework Resource Center	0.126	0.211	1.3	50
M-47C	Guaranteed Ride Home	0.056	0.106	0.7	25.2
M-47C	Employer Outreach	0.102	0.178	2.9	109.7
M-70B	Employer Outreach – Bicycle	0.001	0.001	0.0	0.2
M-47*	Integrated Rideshare	0.016	0.027	0.2	6.4
M-101A	Mass Marketing	0.017	0.032	0.2	7.6

*Virginia discontinued the kiosk project portion of the TERM on December 31, 2006.

From: Moss, David [mailto:David.Moss@montgomerycountymd.gov]
Sent: Friday, November 02, 2007 3:03 PM
To: Daivamani Sivasailam
Subject: RE: TERM Tracking Sheet

Siva,

You are correct. The Germantown Transit Center is completed.

David

-----Original Message-----

From: Daivamani Sivasailam [mailto:siva@mwkog.org]
Sent: Tuesday, October 30, 2007 11:20 AM
To: Moss, David
Cc: Anant Choudhary
Subject: TERM Tracking Sheet

David:

As part of the conformity analysis we have been reviewing the TERM Tracking Sheet. All the projects in Montgomery County are up-to-date except one (Germantown Transit Center) line item # 95 in the tracking sheet. It should have been completed in 2004 or 2005 according to the original schedule. Can you reply with an email if the project is complete? Thanks

Siva

Daivamani Sivasailam
Principal Transportation Engineer
MWCOG
202 962-3226
siva@mwkog.org

Jane Posey

-----Original Message-----

From: Kristin M. Haldeman [mailto:khaldeman@wmata.com]

Sent: Monday, September 25, 2006 9:32 AM

To: Daivamani Sivasailam

Cc: Nat Bottigheimer; Tomika Hughey; Thomas Harrington; Wendy Jia

Subject: WMATA projects on the TERM Tracking Sheet

Two projects that WMATA had underway on the TERM Tracking sheet have been fully implemented. They are:

Item 143: Ultra Low Sulfur Diesel Fuel with CRT filters * completed installation, June 2006

Item 197: 250 CNG buses * completed purchase and in service, June 2006.

With this status report all the WMATA projects have been fully implemented.

Kristin Haldeman

Office of Business Planning & Project Development

Washington Metropolitan Area Transit Authority

600 Fifth Street, NW

Washington, DC 20001

202-962-1848

202-962-1409 (fax)

From: Keys, Maurice (DDOT) [mailto:maurice.keys@dc.gov]
Sent: Tuesday, June 10, 2008 1:13 AM
To: Daivamani Sivasailam
Cc: Sebastian, Jim (DDOT); Rawlings, Mark (DDOT)
Subject: FW: TERM Status

Siva: See below. Does this work for you?

Maurice

-----Original Message-----

From: Sebastian, Jim (DDOT)
Sent: Friday, June 06, 2008 5:35 PM
To: Keys, Maurice (DDOT)
Cc: Rawlings, Mark (DDOT); Goodno, Mike (DDOT)
Subject: RE: TERM Status

Basically, we've done 5 miles a year for 6 years, including last year.

-jim

James R. Sebastian, AICP
Manager, Bicycle, Pedestrian, and
Transportation Demand Management Programs
Transportation Policy and Planning Administration
District Department of Transportation
2000 14th Street, NW, 7th Floor

From: Keys, Maurice (DDOT) [mailto:Maurice.Keys@dc.gov]
Sent: Tuesday, October 16, 2007 3:28 PM
To: Anant Choudhary; Daivamani Sivasailam
Cc: Rawlings, Mark (DDOT); Sebastian, Jim (DDOT); Rybeck, Rick (DDOT)
Subject: RE: TERM status reports

Anant: See project 146, Bicycle Lanes in the District of Columbia. The project remains underway and the District has completed 24 miles to date. Do you need formal correspondence?

Maurice