Metropolitan Washington Council of Governments

FY–2002 Network Documentation:

Highway and Transit Network Development for Version 1 and Version 2.1/TP+ Models

October 4, 2002

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Abstract

This report describes a set of highway and transit networks that represent the ground transportation system of the Washington, D.C. metropolitan area for the purposes of travel demand modeling and are developed over a 6,800 square mile area referred to as the "expanded cordon". The networks meet 1) the requirements of the Version 1 travel demand model set employed in the Constrained Long Range Plan and Transportation Improvement Program Air Quality Conformity process and 2) the time-of-day requirements of the COG's Version 2.1/TP+ travel demand models. COG's Geographic Information System (GIS) has been employed to pre-process and manage network components, and is used to link the transportation network development process and TPB planning activities, including Cooperative Forecasting, Corridor Studies, Models Development, Congestion Monitoring, and the Regional Transportation Data Clearinghouse. The networks developed this fiscal year are consistent with specifications documented in COG reports entitled, "Version 1 Travel Model User's Guide", October 1998 and "Version 2.1/TP+ Travel Model User's Guide", October 2002. This work program represents a continuation of a multi-year networks and models development plan that was formulated in FY-93 under the direction of the Travel Forecasting Subcommittee, a subcommittee of the Transportation Planning Board's Technical Committee.

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FY-2002 Network Documentation: Highway and Transit Network Development for Version 1 and 2.1/TP+ Models

Table of Contents

Appendices

FY-2002 Network Documentation: Highway and Transit Network Development for Version 1 and 2.1/TP+ Models

List of Exhibits

1 Introduction

This report documents work activities completed by COG/TPB staff in accordance with the transportation network development element identified in the *FY-2002 Unified Planning Work Program* (UPWP). Network development activities are currently designed to support two regional forecasting procedures known as the "Version 1" and "Version 2.1/TP+" models. The Version 1 model is COG's currently adopted forecasting process used to support regional and sub regional planning studies.[1] [2] [3] It is a conventional four-step model including a work mode choice model and a 24-hour traffic assignment. The Version 2.1/TP+ model is a more advanced four-step tool developed by COG's models development staff.[4] [5] [6] [7] It includes work and non-work mode choice models as well as time period-specific traffic assignments. Therefore, the Version 2.1/TP+ model requires considerably more network coding than that of the Version 1 process.

The primary network development activity during FY-2002 was the support of the air quality conformity analysis of the FY-2003-2008 Transportation Improvement Plan (TIP) and the region's 25-year Constrained Long Range Transportation Plan (CLRP), as amended in 2002. The current air quality analysis is conducted with the Version 1 model. The development of Version 2.1/TP+-based network information was a secondary work activity. Although the network coding requirements of the Version 2.1/TP+ process are considerably more extensive than those of the Version 1 process, many of the Version 2.1/TP+ network elements are derivative of Version 1-based network files.

The sections below describe general network development concerns, including an overview of the network development program and the essential differences between the Version 1 and 2 networks. The transportation analysis zone (TAZ) system and node numbering conventions are common between the Version 1 and Version 2.1/TP+ network files, and are also presented later in this report.

A review of the planned changes assumed in the FY-2003-2008 TIP and 2002 CLRP is presented in Chapter 2. A detailed description of the Version 1 and Version 2.1/TP+ network elements produced by the network development team is detailed in Chapters 3 and 4, respectively. The network elements produced support travel demand forecasting models implemented in both MINUTP (Version 1) and TP+ (Version 2.1).

The network development process continues to be impacted by changes in communications technology and emerging software tools. Information transfer between agencies is increasingly being conducted in electronic form as opposed to hardcopy summaries. There has been an increased reliance on using the Internet to obtain updated information in a timely manner. Staff has also been relying upon GIS-based databases at COG to develop network files in a more accurate and consistent manner. A summary of network development activities for the next fiscal year, which relate to these

[1] MWCOG, *FY 1998 Models Development Program for COG/TPB Travel Models*, June 30, 1998.
[2] MWCOG, *FY 1998 Network Documentation: 1994/2020 Highway and Transit Networks*, June 30, 1998.
[3] MWCOG, *Version 1 Travel Model User's Guide*, October 1998.
[4] MWCOG, *FY 1999 Models Development Program for COG/TPB Travel Models*, June 30, 1999.
[5] MWCOG, *FY 1999 Network Documentation: Expanded-Cordon Highway and Transit Network Development*, June 30, 1999.
[6] MWCOG, *Version 2.1/TP+ Travel Model Calibration Report*, October 4, 2002.
[7] MWCOG, *Version 2.1/TP+ Travel Model User's Guide*, October 4, 2002.

evolving trends, is presented in Chapter 5.

1.1 Overview of Transportation Network Files

Transportation forecasting models are used to estimate vehicle and transit-person volumes through a process of finding equilibrium between demand and supply. Networks are used in the modeling process as abstractions of the regional highway and transit system. As such, they can be viewed as the 'supply-side' of the transportation model.

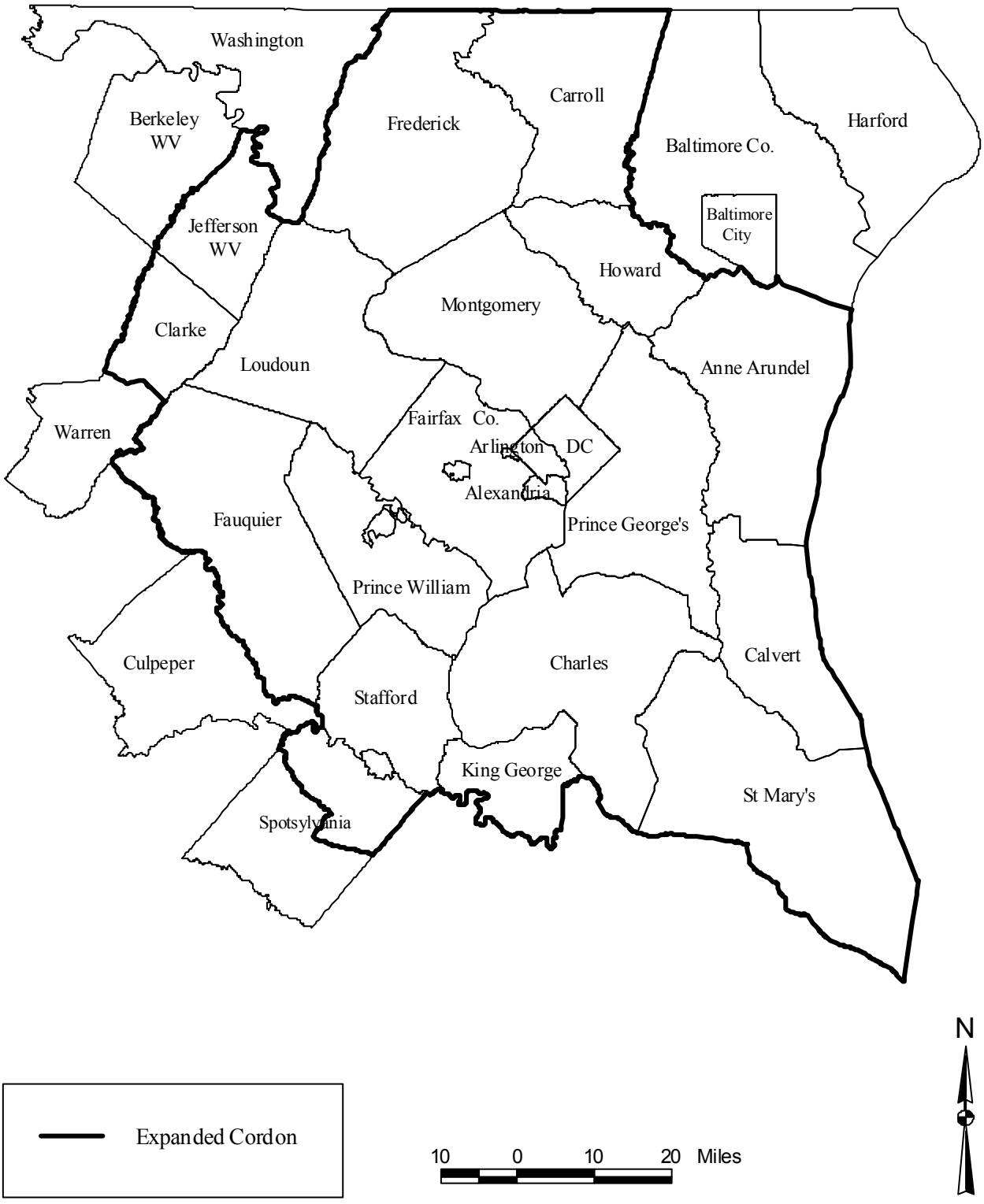
Highway networks are generally developed to conform to a pre-defined TAZ system. Therefore, network coding is finer for developed areas containing physically small zones and coarser for less-developed areas containing larger zones. The current study area for Washington, D.C., referred to as the "expanded cordon" region, is shown as Exhibit 1-1. The cordon encompasses a land area of 6,800 square miles and is comprised of 22 jurisdictions[8], spanning the District of Columbia, Northern Virginia, suburban Maryland, and one county in West Virginia. A typical COG/TPB highway network consists of about 18,000 directional highway links. Roads can be classified into four major types: freeways, arterials, collectors, and locals. COG/TPB highway networks typically include all freeways and arterials, most collectors, and some local roads.

Beyond the design of the zone system, transportation networks are developed reflecting two basic considerations: the requirements of the transportation model, and the requirements and/or constraints of the software used to apply the model. Networks are used to estimate service levels (e.g., travel times and costs) between TAZ, which figure into the distribution of travel and the choice of mode. They are also necessary for determining the choice of route for the modeled modes and the development of travel volumes. The Version 1 model requires a daily district–level highway network for trip distribution, and an AM zone-level highway network and an AM zone-level transit network for mode choice. By contrast, the Version 2.1/TP+ Model requires AM and off-peak transit and highway networks at zonal level. A PM highway network is also required in the Version 2.1/TP+ process.

The files that result from the COG's network development process for the purposes of modeling are highway link files, transit line files, transit network support files such as rail (non-highway links) links and transfer links. Because the transit fare estimation used by MWCOG models is derived from transit path-based information, transit fare development is implicitly considered as a component of the network building process.

[8] The expanded cordon bisects one of the 22 jurisdictions, Spotsylvania County. Its northern portion (approximately north of VA 606) is within the modeled area and the remaining area is outside. The expanded cordon includes all other jurisdictions in their entirety.

Exhibit 1-1: 2,191-Zone COG/TPB Modeled Area



Therefore, files supporting the estimation of transit fares are also prepared in network development. The files supporting Version 1 and Version 2.1/TP+ model networks are described in greater detail in Chapters 3 and 4, respectively.

1.2 Overview of Network Development

Given the importance and regularity of COG's annual air quality conformity studies in recent years, network development has evolved into a cycle of activities around this yearly event. During late summer and fall, transit and highway network summaries from the previous conformity study are compiled. The summaries are used as a point of comparison for the next round of files to be developed. A solicitation of transit data from the local providers is also made during the fall to ensure that the base-year transit files are verified (or refreshed) with the most recent data. During winter, the development of planned improvements for the next TIP cycle is formulated through the COG/TPB process. Network coding for the next conformity cycle occurs in earnest by March, in preparation for model executions commencing in May. During FY-2002, network files for the air quality conformity analysis of the FY-2003-2008 TIP and 2002 CLRP were prepared for the years 2003, 2005, 2015, 2020, and 2025 and used with the Version 1 model.

Version 2.1/TP+ networks are based on the FY 2001-2006 TIP and 2000 CLRP. The networks developed for Version 2.1/TP+ applications correspond to 2000 and 2025. Version 2.1/TP+ applications also employed 1994 highway and transit networks for model calibration[9].

The network development involves a lengthy process involving the compilation of data from a number of agencies in the region and updating of existing data sets to the appropriate years. The process also entails the application of ArcInfo, SAS, and Fortran programs to update, build, and generate highway network files, to summarize files, to check the integrity and accuracy of the files, and to check that the changes in attributes between years are reasonable. A number of intermediate development steps are not discussed in this report. Instead the intention of this report is to provide information on the files that result at the end of the development process, which directly support travel modeling. Chapter 13 of the Version 2.1/TP+ User's Guide discusses various procedures used to check network integrity before each network is used.

1.3 Differences Between the Version 1 and Version 2.1/TP+ Networks

The Version 1 model is similar to the Version 2.1/TP+ model in that they are both four-step travel models, they are both applied on the 2,191-zone (expanded cordon) study area, and they share the same physical highway network links. However, because of the differences in model features mentioned above, substantial network coding differences exist. The Version 1 model requires a single daily highway network and an AM peak transit network. In contrast, the Version 2.1/TP+ model requires three highway networks corresponding to the AM peak period, PM peak period and off peak period. The Version 2.1/TP+ process also requires both AM peak and off-peak transit networks.

[9] MWCOG, FY-98 NetworkDocumentation: 1994/2020 Expanded Cordon Highway and Transit Networks, October 4, 2002.

The Version 2.1/TP+ model also explicitly utilizes a transit accessibility measure, which is derived using transit network times, in the development of the vehicle availability model. The vehicle availability model, in turn, affects the computation of trip generation. No such accessibility variable is used in the Version 1 process.

1.4 Expanded Cordon Area and Node Numbering Systems

The area system used for the expanded cordon is based on a 2,191 TAZ number system. The number system includes both internal TAZ and external stations. Because the system provides for "spare" zones that may be utilized for future studies, the number of actual 'used' internal TAZ currently in use is 1,972. The TAZ are numbered sequentially in ranges corresponding to the modeled jurisdictions. An equivalence table indicating the relationship of TAZ ranges to jurisdictions is shown in Exhibit 1-2 (Note, the district area system shown in Exhibit 1-2 is not used in the Version 2, 2.0, and 2.1 models). The exhibit indicates that the TAZ range allocation for each jurisdiction is inclusive of both "existing" and "spare" zones. The exhibit also indicates that the area system contains 47 external stations, numbered from 2145 to 2191. The location of external stations is shown in Exhibit 1-3.

A network node numbering system was established for the expanded cordon highway and transit networks in 1997 as a way to locate nodes and minimize the use of nodes in multiple locations. The node numbering system is revised yearly as nodes are added for network updates. The current highway node ranges are summarized in Exhibit 1-4. The highway node ranges have been developed by jurisdiction, and are further distinguished by general use facilities and special HOV facilities. Node ranges corresponding to transit network elements (rail stations nodes, parking lots nodes) are shown in the exhibit, as are recommended node ranges for future network development.

Exhibit 1-2 : Equivalence Table for TAZ, Districts, and Jurisdictions for the Expanded Cordon

	Expanded Cordon 2,191 Zones / 487 Districts						
Jurisdiction	Juris. Code	Zone Range	No. of Zones	Unused Zones	District Range	No. of Districts	Unused Districts
District of Columbia	0	1-319	319	-	1-35	35	36-40
Montgomery Co., Md.	1	320-627	308	628-639	41-75	35	76-80
Prince Georges Co., Md.	2	640-1020	381	1021-1029	81-124	44	125-129
Arlington Co., Va.	3	1230-1311	82	1312-1329	245-260	16	261-265
City of Alexandria, Va.	4	1330-1389	60	1390-1399	266-271	6	272-276
Fairfax Co., Va.	5	1400-1755	356	1756-1779	277-316	40	317-321
Loudoun Co., Va.	6	1780-1905	126	1906-1919	322-343	22	344-348
Prince William Co., Va.	7	1920-2061	142	2062-2069	349-368	20	369-373
(Unused)	8						
Frederick Co., Md.	9	1030-1053	24	1054-1059	130-150	21	151-155
Howard Co., Md.	10	1080-1099	20	1100-1109	170-176	7	177-181
Anne Arundel Co., Md.	11	1110-1142	33	1143-1149	182-198	17	199-203
Charles Co., Md.	12	1200-1223	24	1224-1229	226-239	14	240-244
(Unused)	13						
Carroll Co., Md.	14	1060-1073	14	1074-1079	156-164	9	165-169
Calvert Co., Md.	15	1150-1163	14	1164-1169	204-209	6	210-214
St. Mary's Co., Md.	16	1170-1190	21	1191-1199	215-220	6	221-225
King George Co., Va.	17	2070-2074	5	2075-2079	374-378	5	379-383
City of Fredericksburg, Va.	18	2100-2101	2	2102-2104	398	1	399-400
Stafford Co., Va.	19	2080-2093	14	2094-2099	384-392	9	393-397
Spotsylvania Co., Va.	20	2105-2110	6	2111-2114	401-404	4	405-409
Fauquier Co., Va.	21	2115-2125	11	2126-2129	410-418	9	419-423
Clarke Co., Va.	22	2130-2132	3	2133-2134	424-426	3	427-431
Jefferson Co., WVa.	23	2135-2141	7	2142-2144	432-435	4	436-440
Total Internal Zones			**1972**			**333**	
External Stations		**2145-2191**	**47**		**441-487**	**47**	
Total Zones / Stations			**2019**			**380**	
(Total Used & Unused)			*2191*			*487*	

Exhibit 1-3: Location of External Stations on the Expanded Cordon
Map 1 of 2

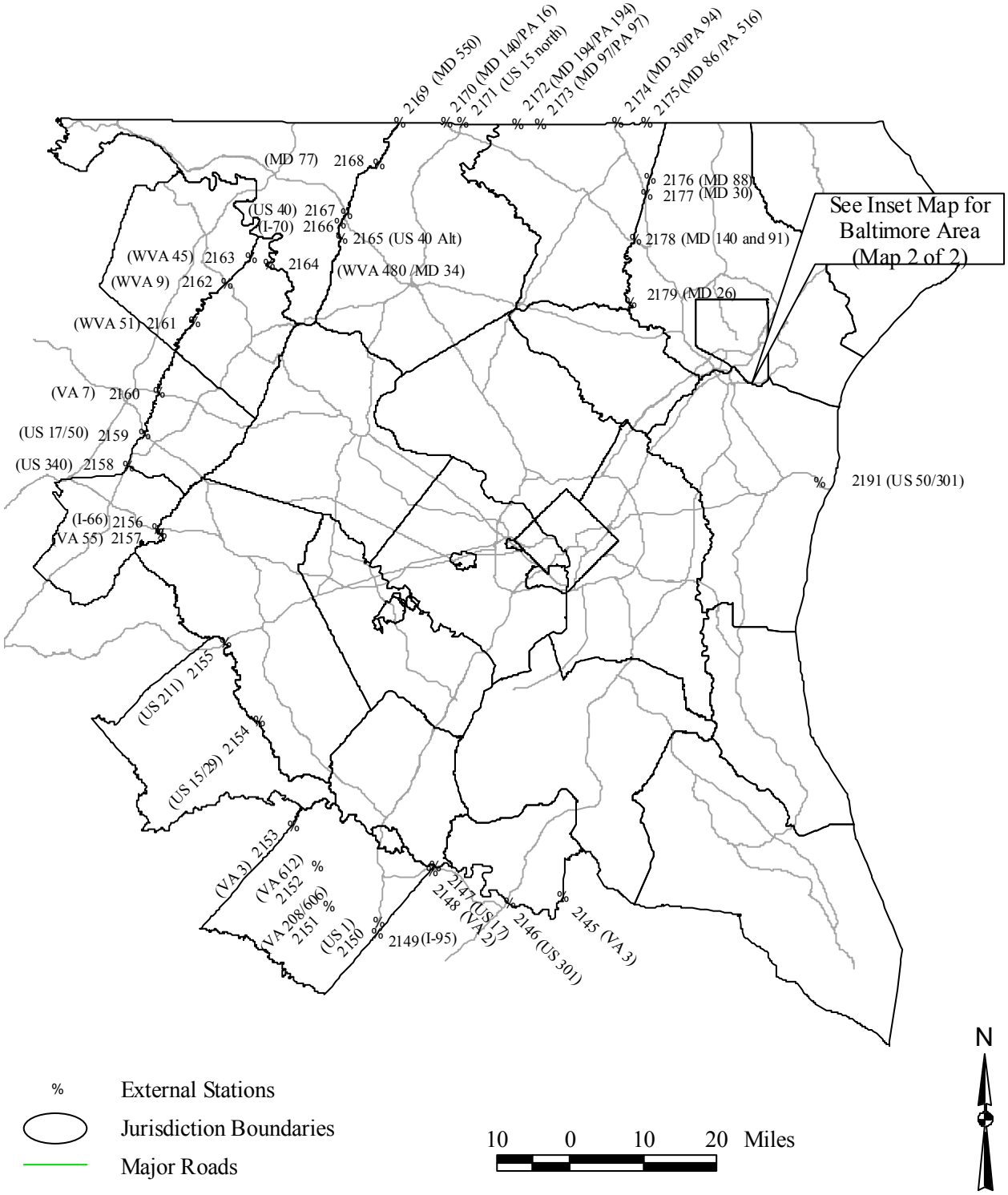


Exhibit 1-3: Location of External Stations on the Expanded Cordon
(Inset Map for Baltimore Area)
Map 2 of 2

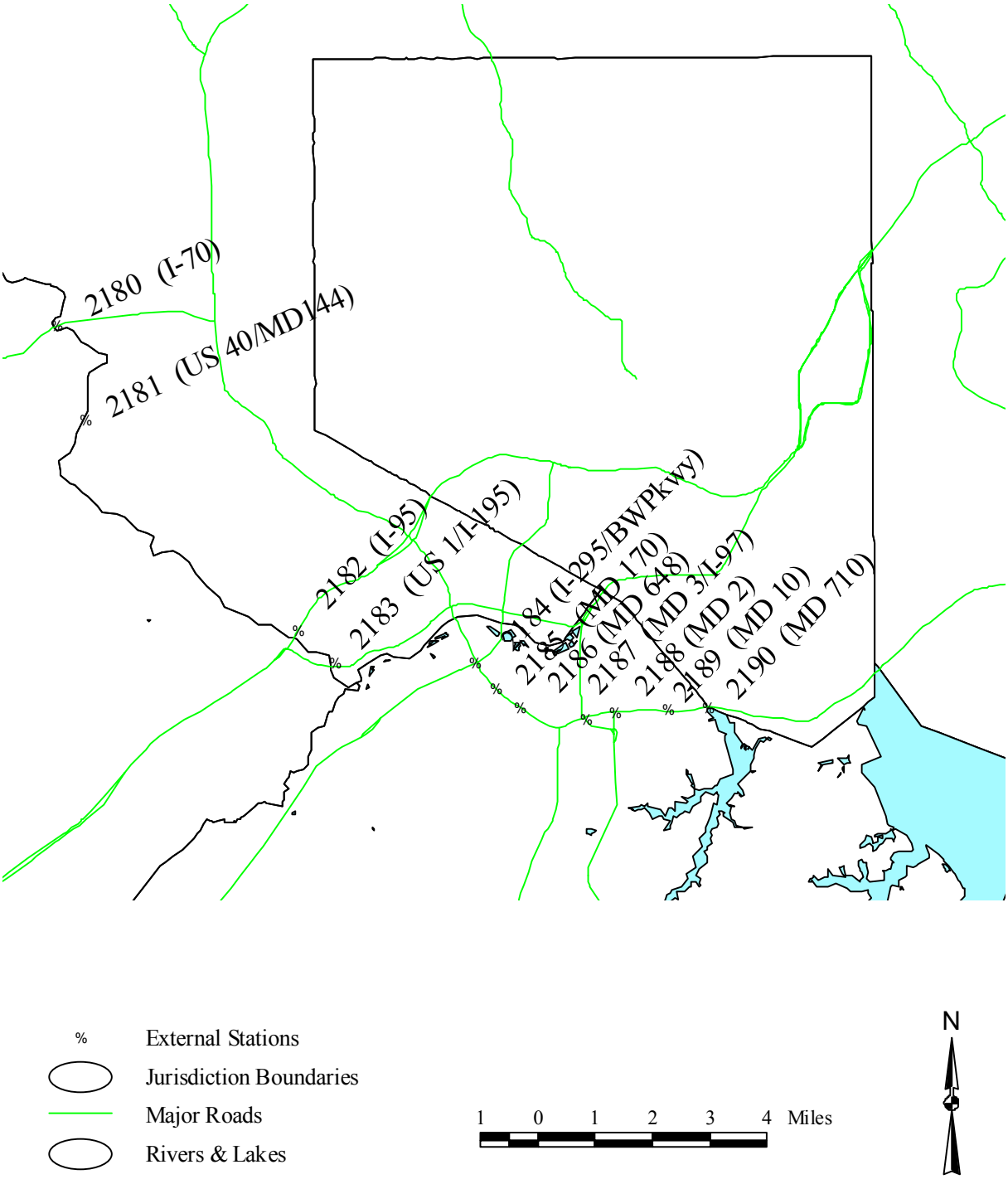


Exhibit 1-4: Node Ranges for the Expanded-Cordon

I. Zone Centroids			
A. Zones	1	-	2191
II. Highway Nodes: General Use (Non-HOV) Facilities			
A. District of Columbia	8400	-	9999
B. Montgomery County	3000	-	3999
	15000	-	5299
C. Prince George's County	4000	-	4999
D. Arlington County	5000	-	5499
E. Alexandria	5500	-	5999
F. Fairfax County	6000	-	6385
	6500	-	6899
	10501	-	10900
G. Prince William County	6386	-	6499
	7000	-	7100
	10151	-	10200
	10401	-	10450
	16000	-	16199
H. Loudoun County	6900	-	6999
	7101	-	7299
	15600	-	15799
I. Frederick County	13200	-	13499
J. Carroll County	13500	-	13599
K. Howard County	13600	-	13799
L. Anne Arundel County	13000	-	13199
	13800	-	13999
M. Calvert County	14000	-	14099
N. Saint Mary's County	14100	-	14199
O. Charles County	14200	-	14399
P. King George County	14400	-	14499
Q. Stafford / City of Fredericksburg	14500	-	14699
R. Spotsylvania County	14700	-	14799
S. Fauquier County	14800	-	14899
T. Clarke County	14900	-	14949
U. Jefferson County	14950	-	14999

III. Highway Nodes: HOV Facilities			
A. I-95 Fairfax Co., - Outside the Beltway	10000	-	10150
B. I-95 Prince William Co.	11551	-	11650
C. I-95 Stafford Co.	10201	-	10250
D. I-66 Fairfax Co., - Outside the Beltway	10251	-	10400
E. I-66 Fauquier Co.	10451	-	10500
F. I-66 Inside the Beltway	12000	-	12099
G. I-267 Dulles Toll Road	10901	-	11550
H. Maryland - HOV Alternatives	11681	-	11835
I. US 50 (MD)	11651	-	11680
J. Franconia-Springfield Parkway	11836	-	11843
K. Virginia - HOV Alternatives	11844	-	11999
L. District of Columbia - HOV Alternatives	12100	-	12200
M. I-395 Fairfax Co. - Inside the Beltway	12201	-	12300
N. I-395 Alexandria - Inside the Beltway	12301	-	12400
O. I-395 Arlington - Inside the Beltway	12401	-	12500
P. I-270 (MD)	12501	-	12700
Q. I-495 Capital Beltway	12701	-	12790
R. Reserved for Future HOV Alternatives	12791	-	12999
IV. Highway Interchange Ramp Nodes			
A. Montgomery County	16500	-	16699
B. Prince George's County	16700	-	16899
C. Frederick County	16900	-	16999
D. Calvert County	17000	-	17099
E. Charles County	17100	-	17199
F. Alexandria	17200	-	17299
G. Arlington County	17300	-	17399
H. Fairfax County/City	17400	-	17599
I. Prince William County	17600	-	17799
J. Loudoun County	17800	-	17999
K Stafford / City of Fredericksburg	18000	-	18199
L. District of Columbia	18200	-	18399
V. Highway Nodes: General-Use Facilities - Reserved for Future Alternatives			
A. Maryland	15300	-	15599
B. Virginia / West Virginia	15800	-	15999
C. District of Columbia	16200	-	16300
VI. Metrorail			

A. Stations	7301	-	7450
B. Parking Lots	7451	-	7599
VII. Commuter Rail			
A. Stations	7600	-	7802
B. Parking Lots	7803	-	7869
VIII. Light Rail			
A. Stations	7670	-	7673
B. Parking Lots	7870	-	7999
IX. Express Bus Park-and-Ride Lots			
A. DC/MD	8000	-	8199
B. VA/WVA	8200	-	8399

NodeRangeXC.xls

2 Overview of Facilities Coded in the Networks Representing the 2002 CLRP and the FY 2003-2008 TIP

The Constrained Long-Range Transportation Plan (CLRP) is the long-term plan for regionally significant transportation projects and improvements in the Washington metropolitan region. The plan is financially constrained to include only those projects that can be funded by revenues that are "reasonably expected to be available" as required by federal law and regulations. The plan extends at least 20 years into the future. The currently adopted CLRP extends to 2025 and was amended on July 31, 2002. Consequently, it is often referred to as the **"**2002 CLRP."[1] The Transportation Improvement Program (TIP) is a six-year subset of the CLRP that represents the first six years of the CLRP. The current TIP is for fiscal years 2003 to 2008.[2] The latest air quality conformity assessment was conducted using the current CLRP and TIP.[3] The CLRP must be updated at least once every three years. Recently, the practice has been to update the CLRP annually, since the TIP is being updated annually and the TIP is a subset of the CLRP.

The networks described in the Version 1 Network Files chapter of this report represent transportation projects and improvements found in the current CLRP and TIP, i.e., the 2002 CLRP and the FY 2003-2008 TIP. The network years for Version 1-based network files are 2002, 2005, 2015, 2020, and 2025. The Version 2.1/TP+-based network files represent transportation projects and improvements found in a previous CLRP and TIP, i.e., the 2000 CLRP and the FY 2001-2006 TIP. The network years for Version 2.1/TP+-based network files are 2000 and 2025.

2.1 Highways

At a minimum, the highway networks include all regionally significant roads, i.e., all freeways, interstates, and expressways in the modeled area, all arterials, most collectors, and some local roads. The number of directional (one-way) links in the base-year (2002) network is about 18,000, which corresponds to about 12,000 link miles and 19,000 lane miles. It would be impossible to list here all the roads that are included in the five network scenarios (years), but Exhibit 2-1, shows significant changes for the 2002 CLRP and the FY2003-2008 TIP. Exhibit 2-2 hows some of the major highway improvements coded in the networks representing the 2002 CLRP and the FY 2003-2008 TIP. Exhibit 2-1 is a subset of Exhibit 2-2.

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[1] The written documentation for the CLRP is prepared every three years or so. The latest is 2000 *Update to the Financially Constrained Long-Range Transportation Plan for the National Capital Region*, MWCOG, May15, 2002.

[2] Note that the dates associated with the TIP are fiscal years and the dates associated with the CLRP are calendar years.

[3] MWCOG, *Air Quality Conformity Determination of the 2002 Constrained Long-Range Plan and the FY 2003-2008 Transportation Improvement Program for the Washington Metropolitan Region*, July 17, 2002.

The table or exhibit is divided into five sections, one per network year. The first section is for the year 2002. The seven improvements listed are those major highway improvements that were occurred between 2000 and 2002. For example, in 2000, the Dulles Greenway (Eastbound) was widened between VA 772 (Exit 6) and VA 234 (Manassas Bypass) was constructed. In the 2005 section of the table, major highway improvements beyond those in the 2002 network are listed. As can be seen in the table, the 2025 network is virtually the same as the 2020 network, since no new major highway improvements are assumed to occur between 2020 and 2025.

Exhibit 2-1 Significant Changes between the 2002 CLRP/FY2003-2008 TIP and its Predecessor

Agency	Improvement	Facility	From	TO	Facility Type from	Facility Type to	No. of Lanes from	No. of Lanes to	Under Const. or ROW acquired?	Completion Date
Maryland										
MDOT	Upgrade/Widen	MD 5 (Branch Ave.)	US 301	I-495	2	5	4	6	No	**2010**
Virginia										
VDOT	Widen	I-66 HOV during peak	US 15 (includes intch. reconst.)	US 29 (Gainesville)	1	1	4	6	No	**2015**
VDOT	Widen	I-66 HOV during peak	US 29 (Gainesville)	VA 234	1	1	4	8	no	**2010**
VDOT	Construct	I-95 HOV (peak)	Stafford Co./PW Line to	Quantico Cr.	0	1	0	2	No	**2015**
VDOT	Widen	I-95 (provide 4th lane)	Newington	VA 123	1	1	6	8	No	**2010**
VDOT	Widen	US 1 (part of 1/123 interchange)	Occoquan Rd.	Annapolis Way	2	2	4	6	No	**2008**
VDOT	Widen	US 1 (Neabsco Creek Bridge)	VA 610 (Neabsco Road)	VA 638 (Neabsco Mills Road)	2	2	4	6	No	**2010**
VDOT	Upgrade	VA 7 (new interchanges)	VA 7/15 (Leesburg Bypass)	VA 28	2	1	6	6	No	**2015**
VDOT	Widen	VA 7	Rolling Holly Drive	Reston Parkway	2	2	4	6	No	**2010**
VDOT	Widen	VA 7	Reston Parkway	Dulles Toll Rd.	2	2	4	6	No	**2012**
VDOT	Widen	US 15 (James Madison Highway)	I-66	Lightner Road (north)	2	2	2	4	No	**2006**
VDOT	***Widen***	***VA 28 (8-lane widen & interchanges)***	***I-66***	***VA 7***	***2***	***1***	***6***	***8***	***No***	***2015***
VDOT	Widen	VA 123	Route 1	Horner Road	2	2	4	6	No	**2008**
VDOT	Widen	VA 123 (Ox Road)	Occoquan River Bridge		2	2	2	6	No	**2006**
VDOT	Widen	VA 234 (Dumfries Road) (see also VI2j)	I-95	US 1	2	5	2	6	No	**2011**
VDOT	***Reconstruct***	***VA 267 (Dulles Toll Rd.)***	***@ I-495 Interchange***		***1***	***1***			***No***	***2003***
VDOT	Construct	Dulles Greenway Interchanges	@ VA 653 & @ VA 654		1	1	0	0	No	**2004**
VDOT	Widen	VA 7 (King Street) - RR underpass	Commonwealth Ave.	Russell Rd.	2	2	3	4	No	**2015**
VDOT	Widen	US 15 (South King Street)	Evergreen Mill Road	SCL of Leesburg	3	2	2	4	No	**2005**
VDOT	Widen	US 29 (Lee Highway)	Chain Bridge Road	Eaton Place	2	2	4	6	No	**2010**
VDOT	Construct	VA 123 (Chain Bridge Road)	US 50	I-66	2	2	5	6	No	**2010**

NOTE: Dates shown in bold are revised completion dates to be included in the 2002 CLRP.

Exhibit 2-2 Major Highway Improvements Coded in the 2002 CLRP and the FY-2003-2008 TIP

Network year	Facility/Service	Improv.	From	To	Facil. Type	Lanes	Comp Year
2002	Dulles Greenway Eastbound	Widen	VA 772 (Exit 6)	VA 28	1	5	2000
	VA 234 (Manassas Bypass)	Construct	VA 28	VA 234/649 S. of Manassas	5	4	2001
	Dulles Greenway Westbound	Widen	VA 28	VA 772 (Exit 6)	1	6	2001
	VA 7100 (Fairfax County Parkway)	Construct	VA 606 (Baron Cameron Avenue)	VA 7 (Leesburg Pike)	5	4	2001
	VA 7100 (Fairfax County Parkway)	Construct	VA 675 (Sunset Hills Road)	VA 606 (Baron Cameron Avenue)	5	6	2001
	VA 7100 (Fairfax County Parkway)	Widen	VA 620 (Braddock Rd)	US 29/VA 608 (West Ox Rd)	5	5	2001
	VA 7	Upgrade	VA 28	Algonkian Parkway	1	6	2002
2005	**Same as 2002 base, plus:**						
	VA 267 (Dulles Toll Road)	Reconstruct	I-495 Interchange		1	0	2003
	I-95 interchange	Construct	at VA 627		1	0	2003
	Dulles Greenway Interchanges	Construct	@ VA 653 & @ VA 654		1	0	2004
	I-95/I-495 (Capital Beltway)	Construct	Interchange at Ritchie Marlboro Road		1	4	2004
	I-270 (West Spur)	Recon/Const.	Interchanges at Democracy Blvd and Westlake Terrace (formerly Fernwood Road)		1	6	2004
	I-270 (East Spur)	Recon/Const.	Rockledge Dr. Connector and MD 187		1	6	2004
	US 50 (John Hanson Highway)	Reconstruct	Columbia Park Road		1	3	2004
	MD 5 Relocated at Hughesville	Construct	End of divided highway south of Hughesville	End of divided highway north of Hughesville	5	4	2005
2015	**Same as 2005, plus:**						
	VA 7100 (Fairfax County Parkway)	Construct	VA 4600 (Fullerton Road)	VA 7900 (Franconia-Springfield Parkway)	1	6	2006
	I-95/I-495 Woodrow Wilson Bridge	Widen	MD 210 Interchange	Virginia Line	1	12	2007
	I-95 (Wilson Bridge and approaches)	Widen	VA 241 (Telegraph Rd.)	MD 210	1	12	2007
	VA 7 Bypass	Widen	VA 7 West	VA 7/US 15 East	1	6	2007

Network year	Facility/Service	Improv.	From	To	Facil. Type	Lanes	Comp Year
2015	**Same as 2005, plus:**						
	I-95	Construct	Contee Road Relocated w/ CD Roads		1	8+4	2010
	I-270	Construct	Interchange at Watkins Mill Road Extended		1	0	2010
	I-70 - Phases II, III and IV	Widen	Mount Phillip Road	MD 144FA	1	6	2010
	MD 5 (Branch Avenue)	Upgrd/Widen	US 301	North of Capital Beltway	5	6	2010
	I-66 Interchange	Reconstruct	@ I-495 (Capital Beltway)		1	0	2010
	Dulles Airport Access Road	Widen	Dulles Airport	VA 123	1	6	2010
	VA 7100 with interchanges	Widen	VA 7735 (Fair Lakes Pkwy)	US 50	5	6	2010
	VA 7100 (Fairfax County Parkway)	Upgrade	I-66	VA 7735 (Fair Lakes Pkwy)	5	6	2010
	US 29	Widen	Virginia Oaks Drive	I-66	5	6	2011
	VA 234 (Dumfries Road)	Widen	I-95	US 1	5	6	2011
	I-95 (provide 4th lane)	Widen	Newington	VA 123	1	8	2015
	VA 7100 (Fairfax County Parkway)	Widen	I-66	VA 5320 (Sunrise Valley Dr.)	5	6	2015
	VA 7100 (Fairfax County Parkway)	Widen	VA 123 (Ox Road)	I-66	5	6	2015
	VA 7 (new interchanges)	Upgrade	VA 7/15 (Leesburg Bypass)	VA 28	1	6	2015
	VA 28 (8-lane widen & interchanges)	Widen	I-66	VA 7	1	8	2015
	VA 28 Bypass (Tri-County Parkway)	Construct	VA 234 (Sudley Road) @ Godwin Drive	I-66	5	6	2015
2020	**Same as 2015, plus:**						
	US 50 (Arlington Blvd.)	Upgrade	ARC/FFX Line	Washington Blvd.	1	6	2020
	US 50 (Arlington Blvd.)	Upgrade	Pershing Dr.	Ft. Myer Dr.	1	6	2020
	I-95/I-495 (Capital Beltway)	Construct	Branch Avenue Metro Access		1	4	2020
	US 29, Columbia Pike	Upgrade	Sligo Creek Parkway	South of MD 193	5	6	2020
	US 29, Columbia Pike	Upgrade	North of MD 193	South of MD 650	5	6	2020
	US 29, Columbia Pike	Upgrade	North of MD 650	Howard County Line	5	6	2020
	US 301 (Crain Highway)	Upgrd/Widen	South of MD 5 at T.B.	US 50	5	6+2	2020
	US 301 (Crain Highway)	Upgrd/Widen	North of Mount Oak Road	US 50	5	6+2	2020
	VA 234 (Manassas Bypass)	Widen/upgrd	VA 234 S. of Manassas	I-66	1	6	2020
2025	**No new freeway projects were added**						

2.2 HOV facilities

HOV facilities and improvements coded in networks representing the 2002 CLRP and the FY 2003-2008 TIP are shown in Exhibit 2-3 . As can be seen in Exhibit 2-3 , the base-year network (2002) includes HOV 3+ on I-95/I-395 from Quantico Creek (Route 234) in Prince William County to the Potomac River. It also includes HOV 2+ on I-66 from VA 234 near Manassas to the Potomac River. The 2002 highway network includes HOV 2+ on I-270 from MD 121 near Gaithersburg to the Beltway. Lastly, HOV 2+ is assumed on the Dulles Toll Road from VA 28 to the Beltway. In 2005, HOV 2+ is assumed to operate on US 50 in Maryland from US 301 to the Beltway. Exhibit 2-3 also shows assumed HOV facilities for the 2015, 2020, and 2025 highway networks. Note that, as of 2010, all HOV facilities are assumed to operate as HOV 3+. A complete list of the highway and HOV inputs for the highway networks is included in Appendix A.

2.3 Transit service

The major transit facilities, services, and improvements coded in the 2002 CLRP and the FY 2003-2008 TIP transit networks are shown in Exhibit 2-4. The year 2002 base network includes the full 103-mile Metrorail system. As for commuter rail, it includes three MARC lines in Maryland (Penn, Camden, and Brunswick Lines) and MARC is extended from Point of Rocks to Frederick. Commuter rail also includes two VRE lines in Virginia (Fredericksburg and Manassas Lines). The 2002 transit network also includes bus service in the Dulles Corridor between Route 772 in Loudoun County to the East Falls Church Metrorail Station. In the 2005 transit network, the Blue Line (Metrorail) is extended from Addison Road to Largo and the New York Avenue Station is added to the Red Line (Metrorail). The Dulles Corridor transit system is upgraded to express bus in 2005. The assumptions for the major transit improvements for the 2015, 2020, and 2025 networks are also shown in Exhibit 2-4. A complete list of the transit inputs for the transit networks is included in Appendix B.

Exhibit 2-3 HOV Facilities and Improvements Coded in the 2002 CLRP and the FY-2003-2008 TIP

Network year	Facility	Improvement	Limits	HOV defi-nition
2002 base	I-95/I-395	(Existing)	Potomac River to Springfield, VA	3+
	I-95	(Existing)	Springfield to Quantico Creek	3+
	I-66	(Existing)	Inside Beltway	2+
	I-66	(Existing)	I-495 to US 50	2+
	I-66	(Existing)	US 50 to VA 234	2+
	I-270	(Existing)	Eastern Spur	2+
	I-270	(Existing)	NB "Y" to I-370	2+
	I-270	(Existing)	I-370 to MD 121	2+
	I-270	(Existing)	Western Spur	2+
	I-270	(Existing)	SB I-370 to "Y"	2+
	Dulles Toll Road	(Existing)	VA 28 to I-495	2+
2005	**Same as 2002 base, plus the following:**			
	US 50	Construct	E. of US 301 / MD 3 to E. of I-95/I-495	2+
2015	**Same as 2005 (except that all HOV facilities were tested as HOV 3+) PLUS:**			
	I-66	Construct	US 29 to VA 234	3+
	I-66	Construct	VA 234 to US 15	3+
	I-395	Widen	14th Street Bridge to I-495 (3 HOV lanes)	3+
	I-495	Construct	I-395/I-95 to American Legion Bridge	3+
	I-95	Widen	I-495 to Quantico Creek (3 HOV lanes)	3+
	I-95	Construct	Quantico Creek to PW/Stafford Line	3+
	I-95 Wilson Bridge	Construct	US 1 (VA) to MD 210	3+
	MD 4	Construct	MD 223 to I-95 / I-495	3+
	MD 210	Construct	MD 228 to I-95 / I-495	3+
	Fairfax Co. Pkwy.	Construct	Franconia/Springfield Pkwy. to VA 640	3+
	Fran./Sprfld. Pkwy.	Construct	Ffx. County Pkwy. to Frontier Drive	3+
2020	**Same as 2015**			
2025	**Same as 2015, plus the following:**			
	US 1 (VA)	Construct	VA 235 North to SCL Alexandria	3+

Exhibit 2-4 Major Transit Facilities, Services, and Improvements Coded in the 2002 CLRP and the FY-2003-2008 TIP

Network year	Facility/Service	Improvement	Limits
2002 base	Metrorail	(Existing)	Complete 103-mile system
	MARC, Penn Line	(Existing)	Union Station to Perryville, MD
	MARC, Camden Line	(Existing)	Union Station to Camden Station (Balt.)
	MARC, Brunswick Line	(Existing)	Union Station to Martinsburg, WV
	MARC, City of Frederick Line	Construct	Frederick to Point of Rocks
	VRE, Manassas Line	(Existing)	Union Station to Broad Run Airport
	VRE, Fredericksburg Line	(Existing)	Union Station to Fredericksburg, VA
	VRE, Fredericksburg Line	(Existing)	Franconia/Springfield Commuter Rail Station
	VRE, Fredericksburg Line	(Existing)	Lorton Commuter Rail Station
	VRE, Fredericksburg Line	(Existing)	Cherry Hill Commuter Rail Station
	Bus, Dulles Corridor	(Existing)	Route 772 in Loudoun to East Falls Ch. Metro
2005	**Same as 2002 base, plus the following:**		
	Metrorail, Blue Line	Construct	Addison Road to Largo
	Metrorail, Red Line	Construct	NY Avenue Station
	Metrorail (Red) / MARC	Construct	Silver Spring Inter-modal Transit Facility
	Express Bus	Upgrade	Dulles Corridor (Phase III)
2015	**Same as 2005, plus the following:**		
	Metrorail (Blue/Yel.) / VRE	Construct	Potomac Greens Station
	Georgetown Branch LRT	Construct	Silver Spring to Bethesda
	Rail	Upgrade	Dulles Corridor (Phase IV) Fixed Guide-way
	MARC, Brunswick Line	Construct	Montrose Crossing Station
2020	**Same as 2015, plus the following:**		
	Bus	Upgrade	US 301 Corridor Bus Service
2025	**Same as 2020, plus the following:**		
	Bus	Upgrade	I-95 / I-395 Transit Service Improvements

3 Version 1 Network Files

This chapter describes the files that support network building and fare development of the Version 1 model in greater detail. The Version 1 model requires the development of two daily highway networks for each model scenario: a zone-level and a district-level highway network. In recent years both zone and district highway networks have been created using the same set of highway links, using different sets of centroid connector links. The model requires one transit network representing the AM peak hour. The AM peak hour is based on scheduled service occurring between 7 AM-7:59 AM[1]. The model requires files that are used to create zone-level AM peak transit fares.

The network development process supporting the Version 1 model requires the provision of 11 ASCII files, which support highway and transit network building/skimming and transit fare development. A list of the files, and their associated network development steps, are listed in Exhibit 3-1. The following section describes an overview of the Version 1 model network building process. The overview is followed by a compilation section of detailed file format descriptions for each file shown in Exhibit 3-1. The format descriptions are shown as Exhibit 3-5 to Exhibit 3-13. Finally, a listing of network files that have been produced in the course of the recent WMATA patronage study work is shown as Exhibit 3-14.

Exhibit 3-1: List of Network Files Prepared for the Version 1 Model

	File	Network Building Step
1	Node Coordinate File	Highway Network Building
2	District Network Link File	Highway Network Building
3	Highway Network Link File	Highway Network Building
4	Rail Station/PNR Lot File	Transit Network Building
5	Metrorail/Commuter Rail Link File	Transit Network Building
6	Transit Line Files	Transit Network Building
7	MFARE2 A2 File	Transit Fare Development
8	Metrorail Station Link File	Transit Fare Development
9	Metrorail Station XY File	Transit Fare Development
10	MFARE1 A1 (Coordinate) File	Transit Fare Development
11	MFARE2 Bus Fare Matrix	Transit Fare Development

3.1 Version 1 Model Network Building Overview

The Version 1 network building process begins with the creation of zone-level and district-level highway network (binary) files. The network building process requires a highway link attribute file, which includes directional link attributes. There are two special link variables that are added to the basic link attributes which are used in the emissions estimation process to disaggregate 24-hour volumes produced by the Version 1 process to hourly volumes: the *IOC* and *HOVFLAG* variables.

[1] In the case of express bus service, which generally originates in the outer reaches of the study area and begins much earlier than 7 AM, the AM peak period definition is relaxed to earlier hourly period for which service is most concentrated.

The IOC variable indicates whether the directional disposition of the link is inbound (heading towards the regional core) outbound, (heading away from the regional core), or circumferential. The HOVFLAG variable is used to identify special links that operate during specific hours of the day, such as peak hour HOV facilities. The currently used HOVFLAG codes are shown as Exhibit 3-2.

Highway link attributes also include a screenline code that is used for model calibration and validation purposes. The current system of screenline codes is shown as Exhibit 3-3. The screenlines shown are used for both the Version 1 and Version 2.1/TP+ models.

The highway networks typically include facility type and area type codes upon which free-flow speeds and hourly capacities are established during traffic assignments. Facility type codes are based on six categories (0/centroid connectors, 1/freeways, 2/major arterials, 3/minor arterials, 4/ collectors, and 5/expressways), and are manually coded on a link-by-link basis. Area types codes range in value from 1 to 9, and are based on fixed concentric "rings" that encircle the regional core. A coordinate file is also necessary in order to enable graphical viewing of the network.

The AM peak transit line files are established 'over' the daily highway network. The highway network contains some links that are coded below the grain of the TAZ system, so that the proximity of transit service to zonal activity centers can be more accurately represented[2]. In accordance with the requirements of the mode choice model, both 'walk access' and 'drive access' versions of the AM peak transit network are prepared.

MWCOG's transit line files are generally developed using mode codes, which designate a specific provider (or provider group). A list of the in-vehicle and out-of-vehicle mode conventions are shown as Exhibit 3-4. The exhibit indicates various providers reflected in COG's transit network.

[2] The sub-zonal highway links used to more accurately reflect transit route alignments are disallowed from use during normal highway pathbuilding and highway assignments, however. These sub-zonal highway links are often referred to as "transit only links."

Exhibit 3-2: HOVFLAG Codes used in the Version 1 Model

HOV Flag Code	Description	Examples
0	Default / No special hourly restrictions	
1	Inbound HOV link (diamond or separate ROW) operating during AM peak period only, which partially or totally, removes capacity from LOV use.	I-395, I-66 Inbound HOV lanes, Dulles Toll Rd.
2	Outbound HOV link (diamond or separate ROW) operating during PM peak period only, which partially or totally, removes capacity from LOV use.	I-395, I-66 Outbound HOV lanes, Dulles Toll Rd.
3	Inbound LOV link adjacent to HOV lanes operating during the AM peak, which gains partial capacity during non-AM peak hours.	I-270 inbound spur LOV lanes, Dulles Toll Rd.
4	Outbound LOV link adjacent to HOV lanes operating during the PM peak, which gains partial capacity during non-AM peak hours.	I-270 outbound spur LOV lanes, Dulles Toll Rd.
5	Inbound LOV link which does not operate at all during the AM peak, but which does operate during non-AM peak hours.	I-66 Inbound (Inside the Capital Beltway)
6	Outbound LOV link which does not operate at all during the PM peak, but which does operate during non-AM peak hours.	I-66 Outbound (Inside the Capital Beltway)
7	Inbound LOV link, which operates adjacent to an inbound HOV, but does not lose capacity during the AM peak period.	I-95, I-395 Inbound LOV lanes
8	Outbound LOV link, which operates adjacent to an outbound HOV link, but does lose any capacity during the PM peak period.	I-95, I-395 Outbound LOV lanes
9	Bi-directional HOV link which operates during the AM and PM peak periods and which partially, or totally, removes capacity from LOV use.	Capital Beltway (planned) HOV lanes
10	Bi-directional LOV link which operates adjacent to an HOV link during the AM and PM peak periods, which gains capacity during non-peak periods.	Capital Beltway (planned) LOV lanes
11	Bi-directional 24 hour HOV link, with no change for LOV capacity.	Woodrow Wilson Bridge
21	LOV links to stadium with added capacity (2 lanes) during AM.	JKC Stadium Brightseat Rd. between Sheriff Rd and Stadium
22	LOV links from stadium with added capacity (2 lanes) during AM peak.	FedEx Stadium Arena Br. between Brightseat Rd. and Stadium
23	LOV links to stadium with added capacity (1 lane) during AM.	JKC Stadium Arena Dr. between Landover Rd. and Brightseat Rd.
24	LOV links from stadium with added capacity (1 lane) during AM.	JKC Stadium Arena Dr. between Landover Rd. to Brightseat Rd.
25	LOV links to stadium with decreased capacity (1 lane) midmorning period and 2 lanes added during the late morning period.	JKC Stadium Sheriff Rd. between Landover Rd. and Brightseat Rd.
26	LOV links from stadium with added capacity (2 lanes) midmorning period and decreased capacity (1 lane) during the late morning period.	JKC Stadium Sheriff Rd. between Landover Rd. and Brightseat Rd.
27	Bi-directional HOV links-24 hour operation inbound direction	US 50 Maryland (inbound)
28	Bi-directional HOV links-24 hour operation outbound direction	US 50 Maryland (outbound)

Exhibit 3-3: Version 1 and Version 2.1/TP+ Model Screenlines
Map 1 of 2

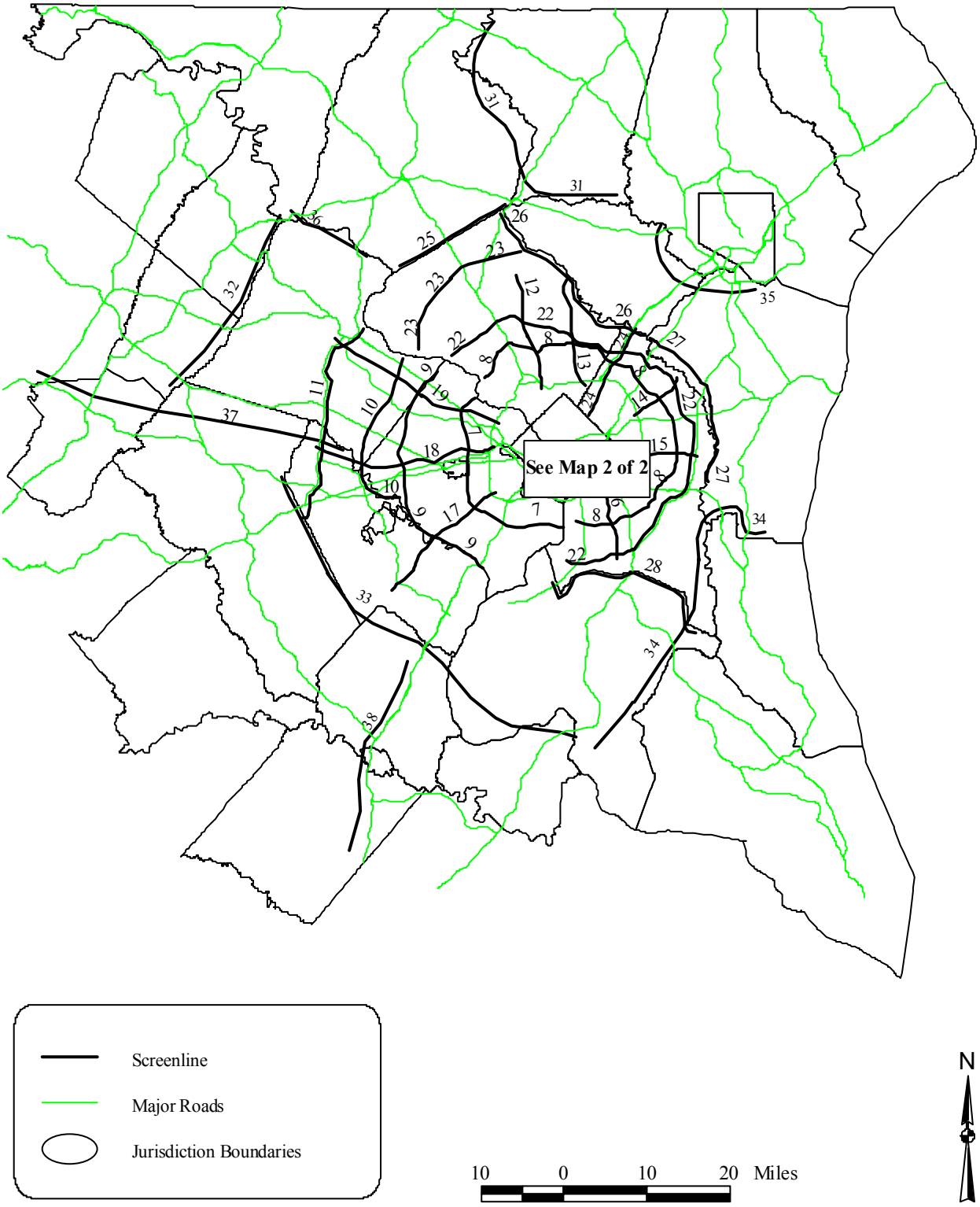

Exhibit 3-3: Version 1 and Version 2.1/TP+ Model Screenlines
(Inside the Capital Beltway)
Map 2 of 2

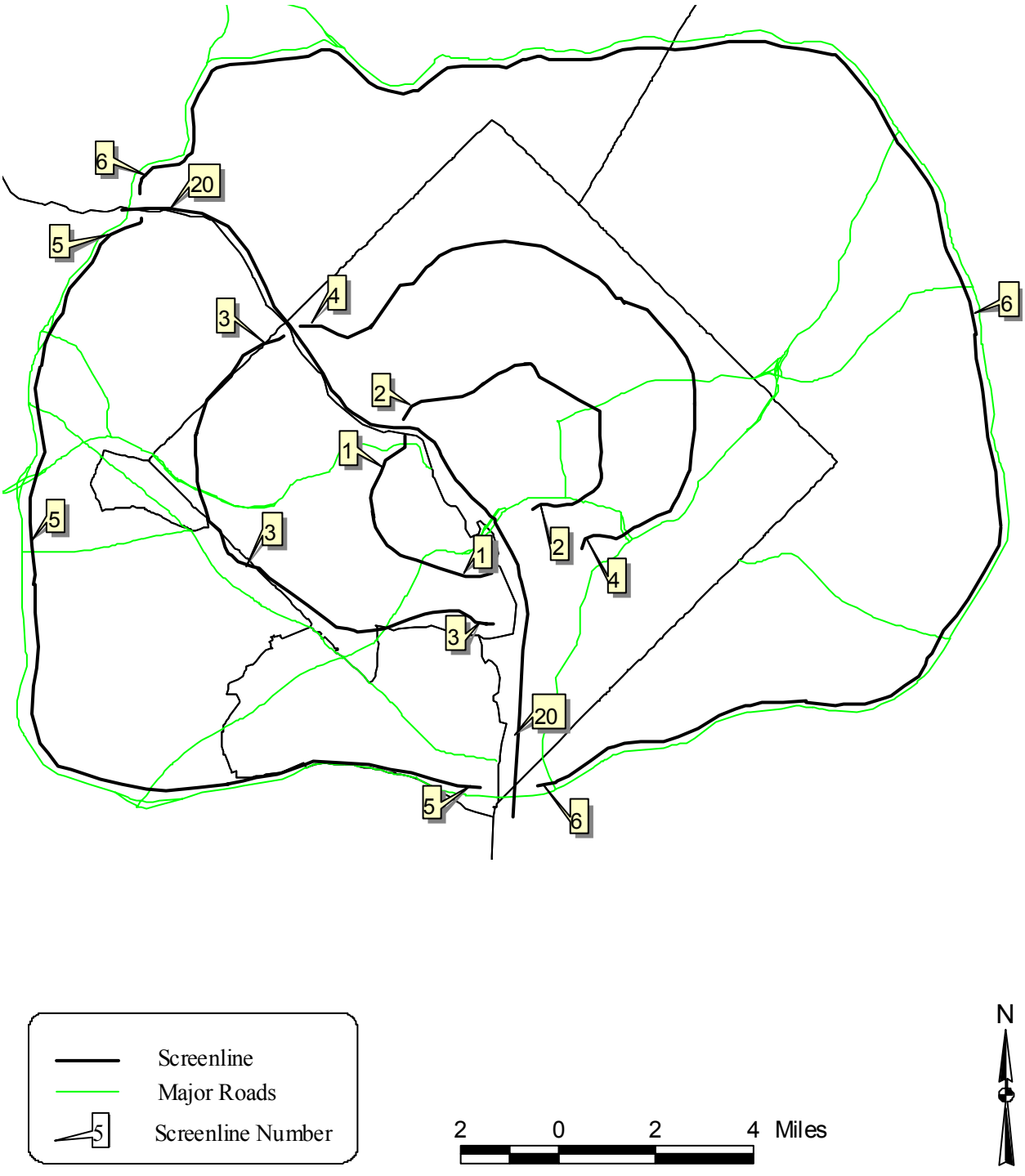

Exhibit 3-4: Summary of Version 1 Model Transit Mode Codes

In-Vehicle Mode Codes		Out-of-Vehicle Mode Codes	
Mode No.	Mode Description	Mode No.	Mode Description
1	Local Metrobus	11	Drive Access Links
2	Express Metrobus	12	Bus-to-Rail Transfer Link
3	Metrorail	13	Walking Link (downtown walk network)
4	Commuter Rail	14	(Unused)
5	(Unused)	15	PNR-to-Bus Stop
6	Other Primary Local Bus (Ride-On, Dash, Fairfax Connector, PG Bus)	16	Zonal Access or Egress (Via walking)
7	Other Primary Express Bus (DASH, Fairfax Connector)		
8	Other Secondary Local Bus (CUE, Laurel Connect-a-Ride, MTA, Omni-Ride, ColumBUS, Arlington Trolley, RIBS, Howard Co. Transit, and Frederick Co. TransIT)		
9	Other Secondary Express Bus (Loudoun Co. Commuter Bus, National Coach, and Quick's Commuter Bus)		

Because of the size and complexity of COG's transit networks, the prospect of manually coding the various access and transfer links associated with transit networks was considered overly onerous. Instead, several automated procedures are used as part of the transit network building process, to enable automatic generation of auxiliary transit links. These types of links include walk-connect links, auto-connect links, transfer links, downtown walk links, etc. The files required for this process are transit line files and a station/PNR file. The station file contains a list of all rail stations and park-and-ride lots (both existing and future) included in the transit network. The station/PNR file contains an array of information that is associated with each station, including bus transfer nodes, the nearest TAZ, etc.

A file containing Metrorail and commuter rail links is required in the transit building process. These link attributes consist of simply the a-node, b-node, distance, and average speed.

Finally, a series of files are needed to support the fare building process. COG's transit fare process consists of two programs known as MFARE1 and MFARE2[3], which operate in sequence to estimate Metrorail station-to-station fares and to estimate total (bus and rail) fares between TAZ. The files include a transit walk percent file, a zonal file indicating the equivalence between each TAZ and its associated bus fare district, a Metrorail network link file and coordinate file, and a bus-fare-zone-to-bus-fare-zone fare matrix.

[3] *User's Guide for the MWCOG Fare Programs, Microcomputer Version* (Final). Originally prepared for the Maryland Department of Transportation by COMSIS Corporation, April 1991. Revised version prepared for the Metropolitan Washington Council of Governments, by William G. Allen, Jr., PE, June 1992.

3.2 File Format Descriptions of the Version 1 Network Files

Exhibit 3-5: File Format Description of the Node Coordinate File

Columns	Format	Field Description
1-6	I6	Highway Node Number
9-14	I6	X-Coordinate (NAD-27)
17- 22	I6	Y-Coordinate (NAD-27)

Exhibit 3-6: File Format Description of Highway Network Link File

Columns	Format	Field Description
1-5	I5	A node
6-10	I5	B node
12	I1	Direction Code
14-17	I4	Link Distance (1/100s of miles)
23-24	I2	Speed Class (1-63) (Initial or blank)
26-27	I2	Capacity Class (1-63) (Initial or blank)
29	I1	Directional Through Lanes (1-7)
30-33	I4	Daily Ground Count in thousands
35-35	I1	Reverse Code
39-40	I2	Jurisdiction Code (0-23)
46-47	I2	Hovflag Code
51-52	I2	Screenline Code
54-55	I2	Link Facility Type Code (0-5)
59-60	I2	Limit Code
60-64	I5	Toll Value (see Note below)
66	I1	IOC 1/inbnd., 2/outbnd., 3/Circum.

Note: The mode choice model requires that all costs be in 1980 dollars.

Exhibit 3-7: Rail Station/PNR Lot File Format Description

Columns	Format	Field Description
1-5	I5	Sequence Number
10	A1	Mode Code (M/Metrorail, C/Commuter rail, B/Bus)
15	A1	Parking Available? (Y/N)
18	A1	Station Active? (Y/N)
21-44	A24	Station Name/PNR lot name
45-50	I6	Network Centroid (2251-2500)
51-55	I5	TAZ location (1-2191)
56-60	I5	Rail Station Node (7301-7399, 7600-7733)
61-65	I5	Parking lot node
66-70	I5	1st Bus Node
71-75	I5	2nd Bus Node
76-80	I5	3rd Bus Node
81-85	I5	4th Bus Node
86-90	I5	X Coordinate of Station / PNR lot (NAD-27)
91-95	I5	Y Coordinate of Station / PNR lot (NAD-27)
96-140		(Unused)
141-145	I5	Year of Station/PNR lot Opening

Exhibit 3-8: Rail Link File Format Description

Columns	Format	Field Description
1-5	I5	A Node
6-10	I5	B Node
15-19	I5	Distance in 1/100ths of miles
21-25	F5.2	Speed (mph)

Exhibit 3-9: MFARE A2 Zone File Format Description

Columns	Format	Field Description
Zonal data		
1-4	I4	TAZ Number (or Station No.)
5-8	I4	Bus fare zone, 1st zone, 1st digit
9-12	I4	Bus fare zone, 1st zone, 2nd digit
13-16	I4	Bus fare zone, 2nd zone, 1st digit
17-20	I4	Bus fare zone, 2nd zone, 2nd digit
45-48	I4	Special transit service fare (cents)
49-50	I2	Jurisdiction code (0/DC, 1/MD, 2/VA Area 1 (Fairfax Co.), 3/VA Area 2 (non-Fairfax Co.)
Station data		
29-32	I4	Station Bus Fare Code 1st zone, 1st digit
33-36	I4	Station Bus Fare Code 1st zone, 2nd digit
37-40	I4	Station Bus Fare Code 2nd zone, 1st digit
41-44	I4	Station Bus Fare Code 2nd zone, 2nd digit

Exhibit 3-10: Metrorail Network Link File

Columns	Format	Field Description
1-5	I5	Station A-node (either dummy station centroid connector or station-to-station link)
6-10	I5	Station B-node (either dummy station centroid connector or station-to-station link)
14-17	I4	Distance in 1/100ths of miles
18-18	A1	T/S -Time or Speed indicator in the TSVA field (See below) - Set to 'T'
19-21	I3	TSVA (Time or Speed Value Field) – Distance has been coded in the field
23-24	I2	Speed Class (dummy value, unused)
26-27	I2	Capacity Class (dummy value, unused)
29-29	I1	Lane (dummy value, unused)

Exhibit 3-11: Metrorail Network Coordinate File Format Description

Columns	Format	Field Description
1-6	I6	Station Node/Network Node Number
7-12	I6	Station Centroid/Station Access Node X Coordinate (NAD-27)
13-18	I6	Station Centroid/Station Access Node Y Coordinate (NAD-27)

Exhibit 3-12: MFARE1 A1 Station File

Columns	Format	Field Description
1-6	I6	Station Number (1-150)
7-12	I6	Station X Coordinate (NAD-27)
13-18	I6	Station Y Coordinate (NAD-27)

Exhibit 3-13: Bus Fare Matrix File Format Description

Columns	Format	Field Description
1-4	I4	Origin Bus Fare zone, 1st zone, 1st digit
5-8	I4	Origin Bus Fare zone, 1st zone, 2nd digit
9-12	I4	Destination Bus Fare zone, 1st zone, 1st digit
13-16	I4	Bus Fare from Origin Bus Fare Zone 11 to Destination zone, 11
17-20	I4	Bus Fare from Origin Bus Fare Zone 11 to Destination Zone 12
…	…	…
37-40	I4	Bus Fare from Origin Bus Fare Zone 11 to Destination Zone 17

Exhibit 3-14: Summary of Version 1 Network Filenames by Year

	Year				
	2002	**2005**	**2015**	**2020**	**2025**
Highway Network					
Zone (2191)	X20222.DAT	X25A22.DAT	X21522.DAT	X22022.DAT	X22522.DAT
Zone XYs	X225.XYS	X25A.XYS	X225.XYS	X225.XYS	X225.XYS
District (487)	X20207D.DAT	X25A07D.DAT	X21507D.DAT	X22007D.DAT	X22507D.DAT
District XYs	X2DST25.XYS	X25ADST25.XYS	X2DST25.XYS	X2DST25.XYS	X2DST25.XYS
Transit Network -					
Line Files (Mode)					
1	X2mo1amp.y02	X2mo1amp.y05	X2mo1amp.y15	X2mo1amp.y20	X2mo1amp.y25
2	X2mo2amp.y02	X2mo2amp.y05	X2mo2amp.y15	X2mo2amp.y20	X2mo2amp.y25
3	X2mo3amp.y02	X2mo3amp.y05	X2mo3amp.y15	X2mo3amp.y20	X2mo3amp.y25
4	X2mo4amp.y02	X2mo4amp.y05	X2mo4amp.y15	X2mo4amp.y20	X2mo4amp.y25
5	X2mo5amp.y02	X2mo5amp.y05	X2mo5amp.y15	X2mo5amp.y20	X2mo5amp.y25
6	X2mo6amp.y02	X2mo6amp.y05	X2mo6amp.y15	X2mo6amp.y20	X2mo6amp.y25
7	X2mo7amp.y02	X2mo7amp.y05	X2mo7amp.y15	X2mo7amp.y20	X2mo7amp.y25
8	X2mo8amp.y02	X2mo8amp.y05	X2mo8amp.y15	X2mo8amp.y20	X2mo8amp.y25
9	X2mo9amp.y02	X2mo9amp.y05	X2mo9amp.y15	X2mo9amp.y20	X2mo9amp.y25
Station File	X2STAT02.DAT	X2STAT05.DAT	X2STAT15.DAT	X2STAT20.DAT	X2STAT25.DAT
Rail Link File	X2RLNK.DAT	X2RLNK.DAT	X2RLNK.DAT	X2RLNK.DAT	X2RLNK.DAT
FARES					
Rail Fares (MFARE1)					
Metro Link File	X2RL07.DAT	X2RL07.DAT	X2RL07.DAT	X2RL07.DAT	X2RL07.DAT
Metro Station XY File	X2RL.XYS	X2RL.XYS	X2RL.XYS	X2RL.XYS	X2RL.XYS
MFARE1 A1 File	X2RL.A1	X2RL.A1	X2RL.A1	X2RL.A1	X2RL.A1
Bus Fares (MFARE2)					
Mfare2 A2 File	MF2X202F.A2	MF2X25AF.A2	MF2X215F.A2	MF2X220F.A2	MF2X225F.A2
Bus Fare Matrix	TAR19BF.MTX	TAR19BF.MTX	TAR19BF.MTX	TAR19BF.MTX	TAR19BF.MTX

4 Version 2.1/TP+ Network Files

This chapter describes the files that support network building and fare development of the Version 2.1/TP+ model in greater detail. The Version 2.1/TP+ model requires the development a single highway networks containing attributes that represent three time periods: the AM peak period (6:00-9:00 AM), the PM peak period (4:00-7:00 PM), and the off-peak period (all remaining hours of the day). The model requires two transit networks representing AM peak hour and off-peak. AM peak hour transit frequencies are based on scheduled service occurring between 7 AM-7:59 AM[1]. The off-peak period frequencies are based on service occurring between 10:00 AM-2:59 PM. The network building process includes the development of zone-level transit fares for both the AM and off-peak time periods.

The network development process supporting the Version 2.1/TP+ model requires 12 ASCII files, which support highway and transit network building/skimming and transit fare development. A list of the files, and their associated network development steps, is shown in Exhibit 4-1. The following section describes an overview of the Version 2.1/TP+ model network building process. The overview is followed by a compilation section of detailed file format descriptions of each file shown in Exhibit 4-1. The format descriptions are shown as Exhibit 4-3 to Exhibit 4-12. Finally, a listing of network files that have been produced this fiscal year in the course of the Version 2.1/TP+ model development is shown as Exhibit 4-13. Note that the filenames on the list are generically named for each year. Therefore, it is the subdirectory, rather than the filename itself, that establishes the year or alternative that a given file represents. The user should reference chapter 1 of the Version 2.1/TP+ User's Guide for more detail on subdirectory and filename specifications required in the model application.

Exhibit 4-1: List of Network Files Prepared for the Version 2.1/TP+ Model

	File	Network Building Step
1	Land Use File	Highway Network Building
2	Node Coordinate File	Highway Network Building
3	Highway Network Link File	Highway Network Building
4	Rail Station/PNR Lot File	Transit Network Building
5	Metrorail/Commuter Rail Link File	Transit Network Building
6	Transit Line Files	Transit Network Building
7	GIS Trn Walk Area Pct. File (peak & off-peak)	Transit Network Building
8	GIS Trn Walk Link File (peak & off-peak)	Transit Network Building
9	River Location File	Transit Network Building
10	MFARE2 A2 File (peak and off peak)	Transit Fare Development
11	MFARE1 A1 (Coordinate) File	Transit Fare Development
12	MFARE2 Bus Fare Matrix (peak and off peak)	Transit Fare Development

[1] In the case of express bus service, which generally originates in the outer reaches of the study area and begins much earlier than 7 AM, the AM peak period definition is relaxed to earlier hourly period for which service is most concentrated.

4.1 Version 2.1/TP+ Model Network Building Overview

The Version 2.1/TP+ network building process begins with the creation of a single binary highway network containing AM, PM, and off-peak highway network attributes. The network building process requires a single highway link attribute file, which includes directional link attributes that vary in accordance with the actual highway operations in effect for each time period.

Highway operations are represented on the basis of lane coding and highway operation (or *limit*) coding. Hence, each link is assigned three lane codes and three limit codes, corresponding to each modeled time period. During network building, each appropriate lane and limit value is selected in the creation of the three files. The operation changes represented in the highway network are those of regional significance. These include facilities that convert from two-way to one-way operations and/or facilities that change in lane configuration during peak traffic periods. Special HOV facilities and truck prohibitions on parkway facilities are also reflected using limit codes. There are numerous cases in the Washington region where through traffic is prohibited from entering into residential neighborhoods during peak periods. These types of prohibitions are typically not of regional significance, and therefore, are not explicitly coded in the highway network.

The highway networks typically include facility type and area type codes upon which free-flow speeds and hourly capacities are established during traffic assignments. Facility type codes are based on 6 categories (0/centroid connectors, 1/freeways, 2/major arterials, 3/minor arterials, 4/ collectors, and 5/expressways), and are manually coded on a link-by-link basis. Area types, however, are assigned during the network building process, on the basis of employment and population density of the TAZ that is nearest to the link. Area type codes range in value from 1 to 7, as indicated in Exhibit 4-2. The determination of the nearest TAZ, the density calculations, and subsequent area type value assignment are undertaken with a series of computer programs. Therefore, a zonal land use file containing land area and land activity information must be provided. A coordinate file is also necessary in order to enable graphical viewing of the network and to perform a number of other modeling tasks, which require information regarding network node positions.

Exhibit 4-2: Version 2.1/TP+ Highway Network Area Type Definitions (the relationship between link area type values and land use density)

One-Mile 'Floating' Pop. Density (Pop/Sq mi.)	One-Mile 'Floating' Employment Density (Emp / Sq mi)						
	0-100	101-500	501-1,500	1,501-5,000	5,001-15,0000	15,001-35,000	35,001+
0-100	7	7	5	5	2	2	2
101-350	7	5	5	5	2	2	2
351-1,500	6	6	5	5	2	2	2
1,501-3,500	6	6	4	3	2	2	2
3,501-6,500	4	4	3	3	2	2	1
6,501-10,000	4	3	3	3	2	2	1
10,0001+	3	3	3	2	2	2	1

The AM and off-peak transit line files are established 'over' the AM and off-peak highway networks, respectively. The highway network contains some links that are coded below the grain of the TAZ system, so that the proximity of transit service to zonal activity centers can be more accurately represented[2]. In accordance with the requirements of the mode choice model, both 'walk access' and 'drive access' versions of both the AM and off-peak networks are prepared. MWCOG transit line files are generally developed using mode codes, which designate a specific provider (or provider group). The in-vehicle and out-of-vehicle mode conventions are the same as those used in the Version 1 model (See Chapter 3, Exhibit 3-4).

Because of the size and complexity of COG's transit networks, the prospect of manually coding the various access and transfer links associated with transit networks is especially onerous. To facilitate coding requirements, several automated procedures are used as part of the transit network building process, to enable automatic generation of auxiliary transit links, including walk-connect links, auto-connect links, transfer links, and downtown walk links. As a result of the automatic link generation, the analyst must develop only two file types, transit line files and a single station/PNR file. The station file contains a list of all rail stations and park-and-ride lots (both existing and future) included in the transit network. The station/PNR file contains an array of information that is associated with each station, including bus transfer nodes and the nearest TAZ.

It is assumed that travelers access the transit system by either walking or driving an auto, so zone centroids are connected to the transit system via a series of walk-access links and drive-access links. If a traveler accesses the transit system by auto, the traveler must go via a designated park-and-ride (PNR) lot, so these drive-access links are also called PNR access links. An automated procedure is used to generate drive-access links for both the peak and off-peak time periods. In the past, such as for the Version 2.0/TP+ model, we generated up to four drive-access links, for each zone, to the four "closest" rail or bus stations (PNRs). However, using such a procedure ("best N stations") can lead to a phenomenon known as the "transit paradox," when one applies the procedure to multiple network scenarios (years). The classic example of the transit paradox is a case where a major rail extension is added to a network, but the extension results in a *loss* in transit trips for some zones, instead of the increase that would be expected. The paradox is caused by inconsistent coding of transit access links, usually drive-access links, where, instead of simply adding new drive-access links that are associated with the rail extension, the modeler both adds some drive-access links and removes some existing drive-access links. The removal of some links usually occurs at end-of-the-line stations that, because of the extension, are no longer end-of-the-line stations. Thus, in adding the new rail extension, some drive-access links that existed in the base scenario were removed by the modeler (or modeler's software) as the rail line is extended, instead of simply adding new drive-access links in addition to the existing ones. The result is that, for some interchanges, the drive-access transit travel time goes up and transit trips drop, despite the addition of the transit service.

To minimize the occurrence of the transit paradox in the Version 2.1 model, we developed a new routine for generating drive-access links that is based on one or more set distances from each zone. Specifically, two conditions apply:

[2] The sub-zonal highway links used to more accurately reflect transit route alignments are disallowed from use during normal highway pathbuilding and highway assignments, however.

1. The straight-line distance from a zone to a PNR lot must be: (1) within 4 miles for DC, Arlington Co., and Alexandria; (2) within 5 miles for Montgomery Co., Fairfax Co., and Prince George's Co.; and (3) within 8 miles for all remaining jurisdictions.
2. Zone to PNR connections will not cross the Potomac River, except for origin zones in Loudoun Co. and Jefferson Co., since the MARC commuter rail system in Maryland does serve commuters from those jurisdictions.

One other enhancement used in automated coding of drive-access links in the Version 2.1 model involves the time and distance coded on drive-access links. Although drive-access links were always coded with a time and distance representing the over-the-road travel between the zone and the PNR, in the past, this time and distance were based on a lookup table of speeds. Now, however, the time and distance values are updated based on the output speeds from the initial "pump prime" traffic assignment. This means that the times and speeds on drive-access links should reflect the fact that they will congest as roadway links congest. Further details can be found in the Version 2.1/TP+ User's Guide, which discusses the automatic generation of both drive-access links and walk-access links.

A file containing Metrorail and commuter rail links is required in the transit building process. These link attributes consist of simply the a-node, b-node, distance and average speed.

Finally, a series of files is needed to support the fare building process. COG's transit fare process consists of two programs known as MFARE1 and MFARE2[3], which operate in sequence to estimate Metrorail station-to-station fares and to estimate total (bus and rail) fares between TAZ. The files include a transit walk percent file, a zonal file indicating the equivalence between each TAZ and its associated bus fare district, a Metrorail network link file and coordinate file, and a bus-fare-zone-to-bus-fare-zone fare matrix.

Automated calculation of transit headways: The "line files" listed in Exhibit 4-16 are text files containing information about transit lines, such as the headway, the run time, and the itinerary (i.e., the sequence of nodes taken by the transit vehicle as it travels its route). Line files are time-of-day specific, so there is one set of line files for the AM peak period and one set for the off-peak period. "Headway" is the time between successive arrivals (or departures) of transit vehicles on a given route. "Run time" is the time in minutes that it takes for the transit vehicle to go from the start to the finish of its route and is a measure of the average speed of the vehicle on that route. In the past headways and run times were calculated manually from the paper timetables put out by the various transit agencies. Since 1999, we have been calculating headways and run times for WMATA bus routes and Ride On bus routes, which represent the lion share of transit routes in a given transit network, in an automated manner using electronic files from the transit agencies and SAS programs developed at COG. The headways and run times for the base-year (1994) network were originally calculated manually, since this was before the automated procedure had been developed. By contrast, the headways and runtimes in all transit networks dated after 1999 were calculated using the automated procedures.

[3] *User's Guide for the MWCOG Fare Programs, Microcomputer Version* (Final). Originally prepared for the Maryland Department of Transportation by COMSIS Corporation, April 1991. Revised version prepared for the Metropolitan Washington Council of Governments, by William G. Allen, Jr., PE, June 1992.

COG staff realized that the two procedures sometimes yielded slightly different values, so, in the summer of 2002, all of the 1994 headways and run times were compared to values from the 2000-year network, where the automated routine was used. In cases where there was no real change in transit service, if a difference was found in the headway or run times, the 1994 values were updated to reflect the revised methodology. This would ensure consistence of transit networks across network years, something that is very important for correct use of travel demand models.

4.2 File Format Descriptions of the Version 2.1/TP+ Network Files

Exhibit 4-3: File Format Description of the Land Use File

Columns	Format	Field Description
1- 4	I4	TAZ (1-2191)
8- 15	I8	Households
16- 23	I8	Household Population
24- 31	I8	Grouped Quarters Population
32- 39	I8	Total Population
40- 47	I8	Total Employment
48- 55	I8	Industrial Employment
56- 63	I8	Retail Employment
64- 71	I8	Office Employment
72- 79	I8	Other Employment
80- 81	I2	Jurisdiction Code (0-23) *0/dc, 1/mtg, 2/pg, 3/alr/, 4/alx,5, ffx, 6/ldn, 7/ pw, 8/(unused), 9/ frd, 10/how, 11/aa, 12/chs, 13/(unused), 14/car, 15/cal, 16/stm, 17/ kg, 18/fbg, 19/stf, 20/spts, 21/fau, 22/clk, 23/jef*
83- 92	F10.4	Gross Land Area (in sq. miles)
94- 95	I2	Ratio of zonal HH median income to regional median HH income in tenths (e.g., a value of *10* indicates a ratio of 1.0), based on the 1990 CTPP.
97- 98	I2	Airline distance from the TAZ centroid to the nearest external station in whole miles.

Exhibit 4-4: File Format Description of the Node Coordinate File

Columns	Format	Field Description
1-6	I6	Highway Node Number
7-14	I8	X-Coordinate (NAD 83) in whole feet
15-22	I8	Y-Coordinate (NAD 83) in whole feet

Exhibit 4-5: File Format Description of Highway Network Link File

Columns	Format	Field Description
1-5	I5	A node
6-10	I5	B node
14-17	I4	Link Distance (1/100s of miles)
30-33	I4	Daily Ground Count in thousands
35-35	I1	Reverse Code
39-40	I2	Jurisdiction Code (0-23)
51-52	I2	Screenline Code
54-55	I2	Link Facility Type Code (0-6)
60-64	I5	Toll Value (In current dollars)
81-82	I2	AM Peak No. of Lanes
84-85	I2	AM Peak Limit Code (0-9)
87-88	I2	PM Peak No. of Lanes
90-91	I2	PM Peak Limit Code (0-9)
93-94	I2	Off-Peak No. of Lanes
96-97	I2	Off-Peak Limit Code (0-9)

Exhibit 4-6: Rail Station/PNR Lot File Format Description

Columns	Format	Field Description
1-5	I5	Sequence Number
10	A1	Mode Code (M/Metrorail, C/Commuter rail, B/Bus)
15	A1	Parking Available? (Y/N)
18	A1	Station Active? (Y/N)
21-44	A24	Station Name/PNR lot name
45-50	I6	Network Centroid (2251-2500)
51-55	I5	TAZ location (1-2191)
56-60	I5	Rail Station Node (7301-7399, 7600-7733)
61-65	I5	Parking lot node
66-70	I5	1st Bus Node
71-75	I5	2nd Bus Node
76-80	I5	3rd Bus Node
81-85	I5	4th Bus Node
94-100	I7	X Coordinate of Station / PNR lot (NAD 83)
105-110	I6	Y Coordinate of Station / PNR lot (NAD 83)
141-145	I5	Year of Station/PNR lot Opening

Exhibit 4-7: Rail Link File Format Description

Columns	Format	Field Description
1-5	I5	A Node
6-10	I5	B Node
15-19	I5	Distance in 1/100ths of miles
21-25	F5.2	Speed (mph)

Exhibit 4-8: Zonal Walk Percentage File Format Description

Columns	Format	Field Description
4-8	I5	TAZ Number
9-17	I9	Total Land Area
24-30	I7	'short' walk area to rail (Metrorail, commuter rail)
36-42	I7	'long' walk area to rail Metrorail, commuter rail
49-55	I7	'short' walk area to non-rail transit
61-67	I7	'long' walk area to non-rail transit
73-81	I9	Non-walking area to ANY transit
85-91	I7	Avg 'Short' Walk Distance to Metrorail (in miles)
95-101	I7	Avg 'Long' Walk Distance to Metrorail (in miles)
106-112	I7	Avg 'Short' Walk Distance to Commuter Rail (in miles)
116-122	I7	Avg 'Long' Walk Distance to Commuter Rail (in miles)
127-133	I7	Avg 'Short' Walk Distance to Bus (in miles)
137-143	I7	Avg 'Long' Walk Distance to Bus (in miles)
149-155	I7	Avg'Short' Walk Distance to ANY Transit (in miles)
161-167	I7	Avg 'Long' Walk Distance to ANY Transit (in miles)
170-174	I5	Nearest Rail Station (Metrorail or Commuter Rail) w/in 1.0 mi
176-180	I5	Nearest Bus Stop Node w/in 1.0 mi

Note: area measurements are in square miles and do not include major bodies of water;
'short' references below are defined as within 1/3 mile;
'long' walk areas are those beyond 1/3 of a mile and within 1.0 mile

Exhibit 4-9: GIS-Walk Link File

Columns	Format	Field Description
1-5	I5	TAZ Number
6-10	I5	Transit Stop nodes within 1.0 mile
11-15	F5.2	Distance from TAZ centroid to stop node in miles

Exhibit 4-10: MFARE A2 Zone File Format Description

Columns	Format	Field Description
Zonal data		
1-4	I4	TAZ Number (or Station No.)
5-8	I4	Bus fare zone, 1st zone, 1st digit
9-12	I4	Bus fare zone, 1st zone, 2nd digit
13-16	I4	Bus fare zone, 2nd zone, 1st digit
17-20	I4	Bus fare zone, 2nd zone, 2nd digit
45-48	I4	Special transit service fare (cents)
49-50	I2	Jurisdiction code (0/DC, 1/MD, 2/VA Area 1 (Fairfax Co.), 3/VA Area 2 (non-Fairfax Co.)
Station data		
29-32	I4	Station Bus Fare Code 1st zone, 1st digit
33-36	I4	Station Bus Fare Code 1st zone, 2nd digit
37-40	I4	Station Bus Fare Code 2nd zone, 1st digit
41-44	I4	Station Bus Fare Code 2nd zone, 2nd digit

Exhibit 4-11: MFARE1 A1 Station File

Columns	Format	Field Description
1-6	I6	Station Number (1-150)
7-12	I6	Station X Coordinate
13-18	I6	Station Y Coordinate

Exhibit 4-12: Bus Fare Matrix File Format Description

Columns	Format	Field Description
1-4	I4	Origin Bus Fare zone, 1st zone, 1st digit
5-8	I4	Origin Bus Fare zone, 1st zone, 2nd digit
9-12	I4	Destination Bus Fare zone, 1st zone, 1st digit
13-16	I4	Bus Fare from Origin Bus Fare Zone 11 to Destination zone, 11
17-20	I4	Bus Fare from Origin Bus Fare Zone 11 to Destination Zone 12
…	….	…
37-40	I4	Bus Fare from Origin Bus Fare Zone 11 to Destination Zone 17

Exhibit 4-13: Summary of Version 2.1/TP+ Network Filenames by Year

	Year	
Directory	**2000**	**2025**
Highway Networks		
Zone Net	Link.Asc	Link.Asc
Land use File	Zone.Asc	Zone.Asc
Zone XYS	Node.Asc	Node.dat
Transit Networks		
GIS Area File	GISWLKAM.ASC GISWLKOP.ASC	GISWLKAM.ASC GISWLKOP.ASC
GIS Link File	GISWKLAM.ASC GISWKLOP.ASC	GISWKLAM.ASC GISWKLOP.ASC
AM Peak Line Files (Mode)		
1	Mode1am.tp	Mode1am.tp
2	Mode2am.tp	Mode2am.tp
3	Mode3am.tp	Mode3am.tp
4	Mode4am.tp	Mode4am.tp
5	Mode5am.tp	Mode5am.tp
6	Mode6am.tp	Mode6am.tp
7	Mode7am.tp	Mode7am.tp
8	Mode8am.tp	Mode8am.tp
9	Mode9am.tp	Mode9am.tp
Off- Peak Line Files (Mode)		
1	Mode1op.tp	Mode1op.tp
2	Mode2op.tp	Mode2op.tp
3	Mode3op.tp	Mode3op.tp
4	Mode4op.tp	Mode4op.tp
5	Mode5op.tp	Mode5op.tp
6	Mode6op.tp	Mode6op.tp
7	Mode7op.tp	Mode7op.tp
8	Mode8op.tp	Mode8op.tp
9	Mode9op.tp	Mode9op.tp
Station File	STAT_TPP.BSE	STAT_TPP.BSE
Rail Link File	RAIL_LNK.BSE	RAIL_LNK.BSE
FARES		
Rail Fares (MFARE1)		
MFARE1 A1 File	MFARE1. A1A	MFARE1. A1A
Bus Fares (MFARE2)		
BUS ZONE FILE	TAZFRZN.ASC	TAZFRZN.ASC
Bus Fare Matrix – AM/PM	BUSFARAM.ASC BUSFAROP.ASC	BUSFARAM.ASC BUSFAROP.ASC

Appendix A 2002 CLRP and FY 2003-2008 TIP Air Quality Conformity Highway / HOV Inputs

Agency	Project ID	Improvement	NEPA Review	Facility	From	TO	Facility Type from / to		No. of Lanes from / to		Under Cons or ROW acquired?	Completion Date or Status	In the TIP?
DC Secondary													
D.C. Dept. of Public V	DS2b	Study		Southern Avenue	Naylor Road	Erie Street						not coded	Yes
MDOT Interstate													
MDOT/State Highwa	MI1a	Study	Pending	I-95/I-495 (Capital Beltway)	American Legion Bridge	Woodrow Wilson Bridge	1	1	0	0	No		Yes
MDOT/State Highwa	MI1e	Construct	Approved	I-95/I-495 (Capital Beltway)	Interchange at Ritchie Marlboro Road		1	1	4	4	Yes	2004	Yes
MDOT/State Highwa	MI1f	Construct	Pending	I-95	Contee Road Relocated w/ CD Roads		1	1	8	8+4	No	2010	Yes
MDOT/State Highwa	MI1k	Construct	Pending	I-95/I-495 (Capital Beltway)	Branch Avenue Metro Access		1	1	4	4	No	2020	Yes
MDOT/State Highwa		Widen	Approved	I-95/I-495 Woodrow Wilson Bridge	MD 210 Interchange	Virginia Line	1	1	6	12	Yes	2007	Yes
MDOT/State Highwa	MI2n	Recon/Const.	Approved	I-270 (East Spur)	Rockledge Dr. Connector and MD 187		1	1	6	6	Yes	2004	Yes
MDOT/State Highwa	MI2l	Recon/Const.	Approved	I-270 (West Spur)	Interchanges at Democracy Blvd and Westlake Terrace (formerly Fernwood Road)		1	1	6	6	No	2004	Yes
MDOT/State Highwa	MI2s	Study	MI2s	I-270/US 15 Corridor	Shady Grove Metro	Biggs Ford Road	1	1	0	0		not coded	Yes
MDOT/State Highwa	MI2p	Reconstruct	Approved	I-270	Interchange at MD 124		1	1	0	0	No	2002	Yes
MDOT/State Highwa	MI2q	Construct	Pending	I-270	Interchange at Watkins Mill Road Extended		1	1	0	0	No	2010	Yes
MDOT/State Highwa	MI2r	Reconstruct	Pending	I-270	Interchange at MD 117 including park and ride lot		1	1	0	0	No	2003	Yes
MDOT/State Highwa	MI4b	Reconstruct	Approved	I-70 - Phase IA	I-270 Interchange		1	1	0	0	Yes	2003	Yes
MDOT/State Highwa	MI4	Widen	Approved	I-70 - Phases II, III and IV	Mount Phillip Road	MD 144FA	1	1	4	6	No	2010	Yes
MDOT/State Highwa	MI4c	Construct	Approved	I-70 (Phase IIA)	MD 85 Extended/MD 355		2	2	0	4	Yes	2005	Yes
MDOT Primary													
MDOT/State Highwa	MP8a	Upgrade/Widen	Approved	US 301 (Crain Highway)	south of MD 5 at T.B.	US 50	2	5	4-6	6+2	No	2020	Yes
MDOT/State Highwa	MP8e	Upgrade/Widen	Pending	US 301 (Crain Highway)	North of Mount Oak Road	US 50	2	5	4-6	6+2		2020	Yes
MDOT/State Highwa	MP9			MD 2/4	south of MD 765	north of Stoakley Road	2	2	4	6		2010	No
MDOT/State Highwa	MP2c	Study		MD 3 (Robert Crain Highway)	US 50	Anne Arundel County Line	2	2	0	0		not coded	Yes
MDOT/State Highwa	MP3a	Upgrade/Widen	Approved	MD 4 HOV and general use lanes	MD 223	I-95/I-495	5	5	4	6+2	No	2015	No
MDOT/State Highwa	MP4f	Upgrade/Widen	Approved	MD 5 (Branch Avenue)	US 301	North of Capital Beltway	2	5	4	6	No	2010	No
MDOT/State Highwa	MP4j	Widen	Approved	MD 5 southbound	Suitland Parkway	MD 414	2	2	3	4	Yes	2001	No
MDOT/State Highwa	MP4k	Construct		MD 5 Relocated at Hughesville	End of divided highway south of Hughesville	End of divided highway north of Hughesville	0	5	0	4		2005	No

Agency	Project ID	Improvement	NEPA Review	Facility	From	TO	Facility Type from / to		No. of Lanes from / to		Under Cons or ROW acquired?	Completion Date or Status	In the TIP?
MDOT/State Highwa	MP5a	Upgrade	Approved	US 29, Columbia Pike	Sligo Creek Parkway	south of MD 193	2	5	6	6	No	2020	No
MDOT/State Highwa	MP5c	Upgrade	Approved	US 29, Columbia Pike	north of MD 193	south of MD 650	2	5	6	6	No	2020	No
MDOT/State Highwa	MP5e	Upgrade	Approved	US 29, Columbia Pike	north of MD 650	Howard County Line	2	5	6	6	No	2020	No
MDOT/State Highwa	MP5i	Reconstruct	Approved	US 50 (John Hanson Highway)	Columbia Park Road		1	1	3	3	Yes	2004	Yes
MDOT/State Highwa	MP5j	Widen	Approved	US 50 (John Hanson Highway) HOV	East of US 301/MD 3	East of I-95/I-495	1	1	6	6+2	Yes	2004	Yes
MDOT/State Highwa	MP6d	Widen	Pending	MD 210 (Indian Head Highway)	MD 228	Capital Beltway	2	2	6	6+2	No	2007	Yes
MDOT/State Highwa	MP7c	Widen	Approved	MD 228 (Berry Road)	w. of Mattawoman Creek	MD 210	2	2	2	4	Yes	2000	Yes
MDOT/State Highwa	MP11a	study	Pending	East-West Link Improvements	I-370	US 1	0	0	0	0		not coded	Yes
MDOT Secondary													
MDOT/State Highwa	MP10a	Reconstruct	pending	US 1 (Baltimore Avenue)	College Avenue	Sunnyside Avenue	2	2	4	4	No	2025	Yes
MDOT/State Highwa	MP10b	Widen	N/A	US 1, Baltimore Avenue	Cherry Hill Road	Sunnyside Avenue	2	2	4	6	No	2010	Yes
MDOT/State Highwa	MS2f	Study		MD 28 (Norbeck Road) / MD 198 (Spencerville Road)	MD 97	US 29 / I-95 Corridor	0	0	0	0		not coded	Yes
MDOT/State Highwa	MS3d	Widen	Approved	MD 28 (Darnestown Road)	Riffle Ford Road	Great Seneca Highway (MD 119)	3	3	2	4-6	No	2004	Yes
MDOT/State Highwa	FP1	Construct	Approved	MD 80	I-270	East of MD 355	2	2	0	4	Yes	2000	Yes
MDOT/State Highwa	FP2	Widen	pending	MD 85 (Buckeystown Pike)	English Muffin Way	Spectrum Drive	2	2	2	4	No	2025	Yes
MDOT/State Highwa	MP12c	Study	pending	MD 97 (Brookville Bypass)	South of Brookville	North of Brookville	0	2	0	2	No	not coded	Yes
MDOT/State Highwa	MS6b	Widen	Pending	MD 124 (Woodfield Road)	Midcounty Highway	Warfield Road	2	2	2	6	No	2010	Yes
MDOT/State Highwa	MS29a	Widen	N/A	University of Maryland (MD 193 WB)	Farm Road	Azelea Road	2	2	4	5	No	2005	Yes
MDOT/State Highwa	MS29b	Widen	N/A	University of Maryland (MD 193 EB)	US 1	Azelea Road	2	2	4	5	No	2005	Yes
MDOT/State Highwa	MS10a	Construct	Pending	MD 201 Extended/US 1	Sunnyside Avenue	MD 198	0	2	0	4	No	2020	Yes
MDOT/State Highwa	MS10d	Widen	Approved	MD 201 (Kenilworth Avenue)	Cherrywood Lane	Sunnyside Avenue	2	2	2	4		2005	Yes
MDOT/State Highwa	MS10b	Widen	Pending	MD 201 (Kenliworth Avenue)	Rittenhouse Road	Pontiac Street	2	2	4	6	No	2005	Yes
MDOT/State Highwa	PGS6	Construct	Pending	MD 212 Relocated (Ammendale/Virginia Manor Roads)	US 1	I-95	3	2	2	4	No	2005	Yes
MDOT/State Highwa	FP1	Construct	N/A	MD 355 Relocated	South of Urbana	North of Urbana	0	2	0	4	No	2004	Yes
MDOT/State Highwa	MS16d	Construct	pending	MD 355 (Rockville Pike)	CSX RR & Interchange @Montrose/Randolph Rd.		2	2	0	0	No	2025	Yes
MDOT/State Highwa	MS30	Widen/Construc	Pending	MD 414 Extended	MD 210	I-295	0	2	0	4		2006	Yes

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MDOT/State Highwa	MS18i	Widen	Approved	MD 450 (Annapolis Road)	East of Whitfield Chapel Road	Greenwood Lane	2	2	2	5	Yes	2007	Yes
MDOT/State Highwa	MS18g	Widen	Approved	MD 450 (Annapolis Road)	Greenwood Lane	Seabrook Road	2	2	2	4	Yes	2007	Yes
MDOT/State Highwa	MS18c	Widen	Approved	MD 450 (Annapolis Road)	MD 193	Bell Station Road	2	2	2	6	No	2006	Yes
MDOT/State Highwa	MS18h	Widen	Approved	MD 450 (Annapolis Road)	Bell Station Road	Stonybrook Drive	2	2	2	4	No	2006	Yes
MDOT/State Highwa	MS18d	Widen	Approved	MD 450 (Annapolis Road)	Stonybrook Drive	West of MD 3	2	2	2	4	No	2010	No
MDOT/State Highwa	MS20c	Construct	Approved	MD 475 (East Street/East Street Extended)	South Street	Walser Drive	0	3	0	4	No	2010	Yes
MDOT/State Highwa	MS20b	Construct	Approved	MD 475 (East Street/East Street Extended)	E. Patrick Street	South Street	0	3	0	4	Yes	2002	Yes
Frederick County													
Private developers		Construct	N/A	MD 28	US 15	MD 28	3	3	2	2	No	2005	No
City of Frederick	FS2	Construct	N/A	Monocacy Blvd	Hughes Ford Rd.	Riverbend Way	0	3	0	4	Yes	2003	No
Frederick County DP	FS1	Widen	N/A	New Design Rd.	Elmer Derr Rd.	Adventist Dr.	2	2	2	4	Yes	2002	No
Montgomery County													
Montgomery County	MC11a	Construct		M-83 - Mid County Highway Extended	MD 27 (Ridge Road)	Montgomery Village Avenue	0	2	0	4/6	No	2025	No
Montgomery County	MC12e	Construct		MD 118 Ext (Germantown. Rd.)	Scenery Dr.	M-83/Watkins Mill Rd.	2	2	2	3	no	2004	Yes
Montgomery County	MC12f	Widen		MD 118 Ext (Grmntwn. Rd.)	MD 355	M-83/Watkins Mill Rd.	2	2	3	6		2020	No
Montgomery County	MC13	Construct		MD 124 Ext. (Woodfield Rd.) Fac.Pln.	MD 108	MD 27	0	2	0	2		2005	No
Montgomery County	MC11c	Construct	N/A	A-305 - MidCounty Highway Extended	MD 355	Stringtown Road	0	3	0	2	No	2015	No
Montgomery County	MC11b	Construct	N/A	A-305 - MidCounty Highway Extended	Stringtown Road	MD 27 (Ridge Road)	0	3	0	4	No	2015	No
Montgomery County	MC26	Construct		Bordly Dr.	MD 97 east to	1800' to existing Bordly Dr.	0	4	0	2		2002	Yes
Montgomery County	MC1c	Widen		Briggs Chaney Rd.	Automobile Blvd.	Gentry Ridge Ct.	3	3	2	4	no	2004	Yes
Montgomery County	MC1f	widen	N/A	Briggs Chaney Rd.	Gateshead Manor Way	PG Co. Line	3	3	2	4	no	2020	No
Montgomery County	MC31	widen		Brink/Wightman Rd. Fac. Planning	MD 27	Goshen Rd.	3	3	3	4		2025	No
Montgomery County	MC38	Construct	N/A	Citadel Avenue	Nicholson Lane	E. Randolph Road	0	3	0	4	No	2010	No
Montgomery County	MC27	Widen		Fairland Rd. Fac. Planning	US 29	Briggs Chaney Rd.	3	3	2	4		2015	No
Montgomery County	MC5d	Construct		Father Hurley Blvd.	Wisteria	MD 118 Relocated	0	2	0	4	no	2020	No
Montgomery County	MC5c	Widen		Father Hurley/ Ridge Rd.	I-270	existing MD 27	0	2	4	6	no	2020	No
Montgomery County	MC7a	Widen		Goshen Rd. Fac. Planning	Girard St.	Warfield Rd.	0	3	2	4	no	2015	No
Montgomery County	MC7b	Construct		Goshen Rd. Fac. Planning	Warfield Rd.	Brink Rd.	0	3	0	2	no	2015	No
Montgomery County	MC14b	Widen		Middlebrook Road	Great Seneca Highway	I-270	2	2	3	6		2000	No
Montgomery County	MC14g	Widen		Middlebrook Road Ext. Widening	MD 355	M-83	2	2	3	6		2020	No
Montgomery County	MC15b	Construct		Montrose Parkway East Fac. Planning	Parklawn Drive	MD 586 - Veirs Mill Road	0	2	0	4	No	2015	No
Montgomery County	MC15	Construct	N/A	Montrose Parkway Fac. Pl.	E. of I-270	E. of MD 355	0	2	0	4	No	2010	No
Montgomery County	MC30	Construct		Nebel St Ext Facility Planning	Randolph Rd	Bou Ave/Chapman Ave	0	3	0	4		2015	No
Montgomery County	MC18a	Construct		Norbeck Rd. Ext.	MD 28	MD 198	0	3	0	2		2003	Yes
Montgomery County	MC18b	Widen		Norbeck Rd. Ext.	MD 28	MD 198	3	3	2	4		2020	No
Montgomery County	MC4b	Widen		E. Randolph Road	Burkhart St.	Old Columbia Pike	0	3	2	5	yes	2000	No
Montgomery County	MC39a	Construct	N/A	Richter Farm Road	Schaeffer Rd.	Great Seneca Highway	0	3	0	4	Yes	2000	Yes
Montgomery County	MC39b	Construct	N/A	Richter Farm Road	MD 117	Schaeffer Rd.	0	3	0	4	Yes	2005	Yes
Montgomery County	MC20	Widen		Shady Grove Rd.	Briardale Rd.	MD 115	3	3	4	6		2003	Yes
Montgomery County	MC34	Widen		Snouffer School Rd. Fac. Planning	Goshen Rd.	Centerway Rd.	3	3	2	4		2020	No

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Montgomery County	MC28	Widen	N/A	Stringtown Rd Ext Facility Panning	I270/ MD 121 int.	400 ft east of MD 355	3	3	2	4	No	2015	No
Montgomery County	MC23a			Watkins Mill Rd. ext.	Md 117	MD 355	0	3	0	4		2010	No
Prince George's County													
Prince George's Cou	PGP5b	Construct	N/A	US 50/Columbia Park Road Ramp	eastbound ramp Cheverly vicinity		0	5	0	1	No	2025	No
Prince George's Cou	PGP5a	Construct	N/A	US 50/Columbia Park Road Ramp	westbound ramp to Columbia Park Road		0	5	0	1	No	2010	No
Prince George's Cou	PGS3a	Widen	N/A	Addison Road	MD 214	Walker Mill Road	3	3	2	4	Yes	2004	Yes
Prince George's Cou	PGS3b	Widen	N/A	Addison Road	Seat Pleasant	MD 704	4	4	2	4	Yes	2003	Yes
Prince George's Cou	PGS5	Construct	N/A	Allentown Road Relocated	Indian Head Highway (MD 210)	Brinkley Road	0	3	0	4	No	2025	No
Prince George's Cou	PGS6	Widen	N/A	Ammendale/Virginia Manor Road	I-95	west of US 1	3	3	2	6	Yes	2003	Yes
Prince George's Cou	PGP4a	Construct	N/A	Baltimore Washington Pkwy/Greenbelt Rd (MD 193)	ramp to southbound Baltimore Washington Pkwy		0	5	0	4	No	2020	No
Prince George's Cou	PGS74a	Widen	N/A	Bell Station Road	Glenn Dale Road (MD 193)	Annapolis Road (MD 450)	4	4	2	4	Yes	2002	Yes
Prince George's Cou	PGS74b	Construct	N/A	Bell Station Road	Annapolis Road (MD 450)	Church Road	0	4	0	4	Yes	2002	No
Prince George's Cou	PGS75	Widen	N/A	Berry Road	Livingston Road	Accokeek Road (MD 373)	4	4	2	4	No	2005	No
Prince George's Cou	PGS9b	Widen	N/A	Bowie Race Track Road	Laurel-Bowie Road (MD 197)	Old Chapel Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS9a	Widen	N/A	Bowie Race Track Road	Annapolis Road (MD 450)	Old Chapel Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS10	Widen	N/A	Brandywine Road	north of Piscataway Road (MD 223)	Thrift Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS76	Widen	N/A	Briggs Chaney Road	Montgomery County line	Old Gunpowder Road	4	4	2	4	Yes	2001	Yes
Prince George's Cou	PGS11	Widen	N/A	Brightseat Road	Sheriff road	Arena Drive	4	4	2	4	No	2002	Yes
Prince George's Cou	PGS12	Widen	N/A	Brinkley Road	St. Barnabas Road (MD 414)	Allentown Road (MD 337)	3	3	4	6	No	2008	Yes
Prince George's Cou	PGS13	Construct	N/A	Brooks Drive Extended	Marlboro Pike	Rollins Avenue	0	3	0	4	No	2015	No
Prince George's Cou	PGS14	Widen	N/A	Cabin Branch Drive	Columbia Park Road	north of Sheriff Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS16a	Construct	N/A	Campus Way North	Lake Arbor Way	south of Lottsford Road	0	4	0	4	No	2001	No
Prince George's Cou	PGS16b	Construct	N/A	Campus Way North Extended	south of Lottsford Road	Evarts Drive	0	4	0	4	No	2010	No
Prince George's Cou	PGS17	Widen	N/A	Cherry Hill Road	Montgomery County line	Baltimore Avenue (US 1)	3	3	2	4	No	2005	Yes
Prince George's Cou	PGS18	Widen	N/A	Church Road	Oak Grove Road	Annapolis Road (MD 450)	4	4	2	4	No	2005	No
Prince George's Cou	PGS20a	Widen	N/A	Columbia Park Road	Cabin Branch Road	Columbia Terrace	4	4	2	4	No	2010	No
Prince George's Cou	PGS20b	Widen	N/A	Columbia Park Road	US 50	Cabin Branch Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS21b	Widen	N/A	Contee Road	Briarwood Drive	US 1	4	4	2	4	No	2000	Yes

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Prince George's Cou	PGS21a	widen/construct	N/A	Contee Road	US 1	Van Dusen Road	3	3	2	4	Yes	2002	Yes
Prince George's Cou	PGS22	Widen	N/A	Dangerfield Road	Cheltenham Avenue	Woodyard Road (MD 223)	4	4	2	4	No	2010	No
Prince George's Cou	PGS24a	Widen	N/A	Dower House Road	Woodyard Road (MD 223)	Foxley Road	4	4	2	4	No	2020	No
Prince George's Cou	PGS24b	Widen	N/A	Dower House Road	Foxley Road	Pennsylvania Avenue (MD 4)	4	4	2	6	No	2010	No
Prince George's Cou	PGS25	Widen	N/A	Fisher road	Brinkley Road	Holton Lane	4	4	2	4	No	2010	No
Prince George's Cou	PGS26	Construct	N/A	Forbes Boulevard Extended	south of Amtrak	Greenbelt Road (MD 193)	0	4	0	4	No	2010	No
Prince George's Cou	PGS27	Widen	N/A	Forestville Road	Allentown Road (MD 337)	Pennsylvania Avenue (MD 4)	4	4	2	4	No	2006	Yes
Prince George's Cou	PGS29	Widen	N/A	Fort Washington Road	Riverview road	Indian Head Highway (MD 210)	4	4	2	4	No	2010	No
Prince George's Cou	PGS30a	Widen	N/A	Good Luck Road	east of Kenliworth Avenue (MD 201)	Cipriano Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS30b	Widen	N/A	Good Luck Road	Cipriano Road	Greenbelt Road (MD 193)	4	4	2	4	No	2010	No
Prince George's Cou	PGS87	Widen	N/A	Governor Bridge Road	US301	Anne Arundel County	4	4	2	4	No	2008	Yes
Prince George's Cou	PGS32	Construct	N/A	Harry S Truman Drive Extended	Ritchie-Marlboro Road	existing Harry S Truman Drive	0	4	0	4	Complete	1997	No
Prince George's Cou	PGS33	Widen	N/A	Highbridge Road	Annapolis Road (MD 450)	Fletchertown Road	4	4	2	4	No	2007	Yes
Prince George's Cou	PGS34a	Widen	N/A	Hill Road	Central Avenue (MD 214)	ML King Jr Highway (MD 704)	4	4	2	4	No	2004	Yes
Prince George's Cou	PGS34b	Construct	N/A	Hill Road	ML King Jr Highway (MD 704)	Sheriff Road	0	4	0	2	No	2010	No
Prince George's Cou	PGS88	Construct	N/A	Iverson St. Extended	Wheeler Road	19th Avenue	0	4	0	4	No	2008	Yes
Prince George's Cou	PGS35	Widen	N/A	Karen Boulevard	Walker Mill Road	Central Avenue (MD 214)	4	4	2	4	No	2010	No
Prince George's Cou	PGS38a	Widen	N/A	Livingston Road	Indian Head Highway (MD 210) at Eastover	Indian Head Highway (MD 210) at Kerby Hill Road	4	4	2	4	No	2008	Yes
Prince George's Cou	PGS38b	Widen	N/A	Livingston Road	Piscataway Creek	Farmington Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS40a	Widen	N/A	Lottsford Road	Landover Road (MD202)	Enterprise Road (MD 193)	3	3	2	4	No	2004	Yes
Prince George's Cou	PGS39b	Widen	N/A	Lottsford Vista Road	ML King Jr Highway (MD 704)	Ardwick-Ardmore Road/Relocated	4	4	2	4	No	2010	No
Prince George's Cou	PGS39a	Widen	N/A	Lottsford Vista Road	ML King Jr Highway (MD 704)	Lottsford Road	4	4	2	2	No	2006	Yes
Prince George's Cou	PGS44a	Widen	N/A	Metzerott Road	New Hampshire Avenue (MD 650)	Adelphi Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS44b	Widen	N/A	Metzerott Road	Adelphi Road	University Boulevard (MD 193)	4	4	2	4	No	2010	No
Prince George's Cou	PGS45	Widen	N/A	Mitchellville Road	Mount Oak Road	Collington Road (MD 197)	4	4	2	6	Yes	2000	No
Prince George's Cou	PGS45b	Widen	N/A	Mitchellville Road	US 301	Mount Oak Road	4	4	2	4	No	2006	Yes
Prince George's Cou	PGS46	Widen	N/A	Murkirk Road	west of Baltimore Avenue (US 1)	Odell Road	4	4	2	4	No	2010	No

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Prince George's Cou	PGS47	Widen	N/A	Oak Grove and Leeland Roads	Watkins Park Road (MD 193)	Robert Crain Highway (US 301)	4	4	2	4	No	2005	No
Prince George's Cou	PGS49	replace	N/A	Odell Road Bridge Replacement	Indian Creek		4	4	0	2	Yes	1999	No
Prince George's Cou	PGS48	Widen	N/A	Old Alexandria Ferry Road	Woodyard Road (MD 223)	Branch Avenue (MD 5)	4	4	2	4	No	2010	No
Prince George's Cou	PGS80	Construct	N/A	Old Baltimore Pike Extended	Muirkirk Road	Contee Road	4	4	0	2	Yes	2010	No
Prince George's Cou	PGS50	Widen	N/A	Old Branch Avenue	north of Piscataway Road (MD 223)	Allentown Road (MD 337)	4	4	2	4	Yes	2008	Yes
Prince George's Cou	PGS51a	Rehabilitate	N/A	Old Gunpowder Road	Powder Mill Road	Greencastle Road	4	3	2	2	No	2007	Yes
Prince George's Cou	PGS51c	Widen	N/A	Old Gunpowder Road	Greencastle Road	Sandy Springs Road (MD 198)	4	3	2	4	No	2008	Yes
Prince George's Cou	PGS51b	Widen	N/A	Old Gunpowder Road	Powder Mill Road	Greencastle Road	4	3	2	4	No	2010	No
Prince George's Cou	PGS52	Widen	N/A	Oxon Hill Road	MD210/ Old Fort Rd	south of Bald Eagle Road	4	4	2	4	No	2005	Yes
Prince George's Cou	PGS89a	Construct	N/A	Piscataway Creek Relocated	Piscataway Creek	Livingston Road	0	3	0	2	No	2010	No
Prince George's Cou	PGS89b	Widen	N/A	Piscataway Creek Relocated	Piscataway Creek	Livingston Road	3	3	2	4	No	2020	No
Prince George's Cou	PGS81	Construct	N/A	Presidential Parkway	Suitland Parkway	Melwood Road	0	3	0	6	No	2020	No
Prince George's Cou	PGS54	Widen	N/A	Rhode Island Avenue	University Boulevard (MD 193)	Baltimore Avenue (US 1)	4	4	2	4	No	2010	No
Prince George's Cou	PGS55	Widen	N/A	Ritchie Marlboro Road	Ritchie Rd	White House Road	3	3	2	4	No	2015	No
Prince George's Cou	PGS56a	Widen	Approved	Ritchie Road/Forestville Road	Alberta Drive	MD 4 Pennsylvania Avenue	4	4	2	4	Yes	2006	Yes
Prince George's Cou	PGS56e	Widen	N/A	Ritchie Road/Forestville Road	Alberta Drive	Ritchie Marboro Rd	4	4	2	4	No	2010	No
Prince George's Cou	PGS57	Widen	N/A	Rollins Avenue	Central Avenue (MD 214)	Walker Mill Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS58	Widen	N/A	Rosaryville Road	Robert Crain Highway (US 301)	Woodyard Road (MD 223)	4	4	2	4	No	2010	No
Prince George's Cou	PGS60b	Widen	N/A	Spine Road	Branch Avenue (MD 5)/US 301	Brandywine Road (MD 381)	3	3	2	6	No	2015	No
Prince George's Cou	PGS61	Widen	N/A	Springfield Road	Lanham-Severn Road (MD 546)	Good Luck Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS82	Construct	N/A	St. Joseph's Drive	MD 202	Ardwick-Ardmore Road	0	4	0	4	No	2015	No
Prince George's Cou	PGP2	Construct	N/A	Suitland Parkway	interchange at Rena/Forestville Roads		0	5	0	1	No	2020	No
Prince George's Cou	PGS62a	Widen	N/A	Suitland Road	Allentown Road (MD 337)	Suitland Parkway	3	3	2	4	No	2003	Yes
Prince George's Cou	PGS62b	Widen	N/A	Suitland Road	Suitland Parkway	Silver Hill Road (MD 458)	3	3	2	4	No	2010	No
Prince George's Cou	PGS63	Widen	N/A	Sunnyside Avenue	Baltimore Avenue (US 1)	Kenliworth Avenue (MD 201)	4	4	2	4	No	2010	No
Prince George's Cou	PGS64	Widen	N/A	Surratts Road	Beverly Avenue	Brandywine Road	4	4	2	4	No	2004	Yes
Prince George's Cou	PGS65	Widen	N/A	Temple Hill Road	Piscataway Road (MD 223)	St. Barnabas Road (MD 414)	4	4	2	4	No	2010	No

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Prince George's Cou	PGS67b	Construct	N/A	Van Dusen Road Interchange	@Contee Road		0	3	0	0	No	2020	No
Prince George's Cou	PGS67a	Widen	N/A	Van Dusen Road	Contee Road	Sandy Springs Road (MD 198)	3	3	2	4	No	2010	No
Prince George's Cou	PGS68	Widen	N/A	Virginia Manor Road	Muirkirk Road	Contee Road	4	4	2	4	No	2010	No
Prince George's Cou	PGS69a	Widen	N/A	Walker Mill Road	Silver Hill Road	Ritchie Road	3	3	2	4	No	2007	Yes
Prince George's Cou	PGS69b	Construct	N/A	Walker Mill Road Extended	Ritchie Road	I-95	0	3	0	6	Yes	2002	Yes
Prince George's Cou	PGS86	Realign		Watkins Park Drive (MD 193)	Keverton Drive	MD 202	4	4	0	2	Yes	2001	No
Prince George's Cou	PGS70	Widen	N/A	Wheeler Road	St. Barnabas Road (MD 414)	District of Columbia limits	4	4	2	4	No	2010	No
Prince George's Cou	PGS71	Widen	N/A	White House Road	Ritchie-Marlboro Road	Largo-Landover Road (MD 202)	3	3	2	6	Yes	2006	Yes
Prince George's Cou	PGS72	Widen	N/A	Whitfield Chapel Road	Annapolis Road (MD 450)	Ardwick-Ardmore Road	4	4	2	4	No	2010	No
Prince George's Cou	PGP3	Construct	N/A	Willowbrook Parkway	Central Avenue (MD 214)	Robert Crain Highway (US 301)	0	2	0	4	No	2010	No
Prince George's Cou	PGS40b	Construct	N/A	Woodmore Road	Enterprise Road (MD 193)	Church Road	0	3	0	4	No	2008	Yes
Prince George's Cou	PGS42	Widen	N/A	Woodyard Road (MD 223)	Rosaryville Road	Dower House Road	3	2	2	4	No	2010	No
Prince George's Cou	PGS42b	Construct	N/A	Woodyard Road Relocated (MD 223)	Piscataway Creek	Livingston Road	0	3	0	2	No	2010	No
Prince George's Cou	PGS42c	Widen	N/A	Woodyard Road Relocated (MD 223)	Piscataway Creek	Livingston Road	3	3	2	4	No	2020	No
VDOT Interstate													
VDOT	VI1aa	Reconstruct	Pending	I-66 Interchange	@ I-495 (Capital Beltway)		1	1	0	0	No	2010	Yes
VDOT	VI1ab	Study	Pending	I-66	I-495 (Capital Beltway)	DC Line	1	1	4	6	No	2005	Yes
VDOT	VI1w	Widen	CE-1	I-66 HOV during peak	US 15 (includes intch. reconst.)	US 29 (Gainesville)	1	1	4	6	No	2015	No
VDOT	VI1c	Widen	CE-4	I-66 HOV during peak	US 29 (Gainesville)	VA 234	1	1	4	8	no	2010	Yes
VDOT	VI1z	Reconstruct	Pending	I-66 Interchange	@ US 29 (Gainesville)		1	1	0	0	No	2011	Yes
VDOT	VI1l	Study	PCE-1	I-66 ramp	EB on-ramp from US 29 (Arlington)		1	1	0	0	no		No
VDOT	VI2i	Construct	CE-1	I-95 HOV (peak)	Stafford Co./PW Line to	Quantico Cr.	0	1	0	2	No	2015	No
VDOT	VI2l	Restripe	PCE-1	I-95 HOV (3 total)	Quantico Creek	I-495	1	1	2	3	no	2010	No
VDOT	VI2z	Reconstruct	CE-4	I-95	bridges over Quantico Creek		1	1	6	6	Yes	2001	No
VDOT	VI2j	Reconstruct	Approved	I-95 interchange (see also VP12d)	@ VA 234		1	1	0	0	Yes	2002	No
VDOT	VI2p	Widen	CE-1	I-95 (provide 4th lane)	Newington	VA 123	1	1	6	8	No	2010	Yes
VDOT	VI2ab	Reconstruct	Pending	I-95 Interchange	@ VA 642 (Lorton Road)		1	1	0	0	No	2010	No
VDOT	VI2d	Construct	Pending	I-95 Interchange	@ VA 7900 (Franconia-Springfield Parkway)	LOV Access to & from West/from & to North	0	1	0	0	No	2010	Yes
VDOT	VI2ac	Reconstruct	Pending	I-95 Interchange	@ VA 613 (Van Dorn Street)		1	1	0	0	No	2015	No
VDOT	VI2c	Reconstruct	Approved	I-95/395/495 Interchange			1	1	0	0	Yes	2007	No
VDOT	VI2k	Widen	SEIS-2	I-95 (Wilson Bridge and approaches)	VA 241 (Telegraph Rd.)	MD 210	1	1	6-8	12	No	2007	Yes
VDOT	VI3b	Restripe	PCE-1	I-395 HOV (3 lanes total)	I-95	DC	1	1	2	3	No	2010	No
VDOT	VI3c	Study	PCE-1	I-395 HOV ramp connections	HOV access in Alexandria		1	1	0	0	No	not coded	No
VDOT	VI3d	Construct	Pending	I-395 HOV connection	@ Seminary Rd.	to & from the south	0	1	0	0	No	2015	No

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VDOT	VI4r	Study	Pending	I-495 5th lane (HOV peak)	I-395	American Legion Bridge	1	1	8	10	Yes	2002	No
VDOT	VI4i	Construct	EA-2	I-495 HOV (peak)	I-395	I-66	1	1	8	10	No	2012	No
VDOT	VI4j	Construct	EA-2	I-495 HOV (peak)	I-66	Dulles Toll Rd.	1	1	8	10	No	2011	No
VDOT	VI4k	Construct	EA-2	I-495 HOV (peak)	Dulles Toll Rd	Am. Leg. Bridge	1	1	8	10	No	2013	No
VDOT Primary													
VDOT	VP1t	Widen	Pending	US 1 (HOV lanes)	VA 235 North	Beltway)	2	2	6	8	No	2025	No
VDOT	VP1u	Widen	Pending	US 1	VA 235 South	VA 235 North	2	2	4	6	No	2012	Yes
VDOT	VP1fb	Widen	Approved	US 1 (as part of VP1f)	Armistead Rd.	Lorton Rd.	2	2	4	6	No	2004	No
VDOT	VP1f	Widen	Approved	US 1 (3la. NB - 4 la. SB)	Lorton Rd.	Telegraph Rd.	2	2	4	7	No	2004	Yes
VDOT	VP1a	Widen	Pending	US 1	Stafford County Line	VA 235 South	2	2	4	6	No	2015	No
VDOT	VP1p	Widen	Pending	US 1 (part of 1/123 interchange)	Occoquan Rd.	Annapolis Way	2	2	4	6	No	2010	No
VDOT	VP1o	Widen	Approved	US 1 (Neabsco Creek Bridge)	VA 610 (Neabsco Road)	VA 638 (Neabsco Mills Road)	2	2	4	6	No	2010	Yes
VDOT	VP2r	Widen	Approved	VA 7	Lakeland Dr.	VA 228	2	2	4	6	Yes	2001	No
VDOT	VP2g	Upgrade	Pending	VA 7 (new interchanges)	VA 7/15 (Leesburg Bypass)	VA 28	2	1	6	6	No	2015	No
VDOT	VP2j	Widen	Pending	VA 7 Bypass	VA 7 West	VA 7/US 15 East	5	1	4	6	No	2015	Yes
VDOT	VP2m	Widen	Pending	VA 7	Rolling Holly Drive	Dulles Toll Rd.	2	2	4	6	No	2012	Yes
VDOT	VP2l	Widen	Pending	VA 7	Dulles Toll Rd.	I-495	2	2	6	8	No	2013	No
VDOT	VP2b	Widen	Pending	VA 7	Seven Corners	Bailey's Crossroads	2	2	4	6	No	2020	No
VDOT	VP2q	Upgrade	Pending	VA 7	VA 28	Algonkian Parkway	2	1	6	6	No	2002	No
VDOT	VP3b	Study	Pending	VA 9	West Virginia State Line	VA 7	2	2	2	4	No	not coded	No
VDOT	VP4e	Widen	Pending	US 15 (James Madison Highway)	US 29	I-66	2	2	2	4	No	2020	No
VDOT	VP4fa	Widen	Pending	US 15 (James Madison Highway)	I-66	Lightner Road (north)	2	2	2	4	No	2006	No
VDOT	VP4fb	Widen	N/A	US 15 (James Madison Highway)	Lightner Road (north)	Loudon County Line	2	2	2	4	No	2020	No
VDOT	VP6b	Widen	Pending	VA 28 (Centreville Road)	N. City Limits of Manassas Park	Old Centreville Rd.	2	2	4	6	No	2025	No
VDOT	VP6c	Construct	Approved	VA 28 partial interchange	@ VA 763 (Barnsfield Rd.)	Smithsonian Air & Space Museum	0	0	0	0	No	2003	No
VDOT	VP6p	Widen	Approved	VA 28 (as part of 28/29 interchange)	Old Centreville Rd.	US 29 (4 lanes SB; 3 lanes NB)	2	2	4	7	Yes	2001	No
VDOT	VP6q	Widen	Approved	VA 28 (as part of 28/29 interchange)	Machen Road	Old Centreville Rd. (3 lanes SB)	2	2	4	5	Yes	2001	No
VDOT	VP6d	Widen	Approved	VA 28 (as part of 28/29 interchange)	US 29	I-66 (add NB lane)	2	2	6	7	Yes	2001	No
VDOT	VP6h	Widen	Pending	VA 28	Fauquier County Line	VA 215 (Vint Hill Road)	2	2	2	4	No	2012	Yes
VDOT	VP6k	Widen	Pending	VA 28	VA 215 (Vint Hill Road)	VA 234 Bypass	2	2	2	6	No	2010	Yes
VDOT	VP6t	Reconstruct	Approved	VA 28 SB	VA 619	VA 215	2	2	2	3	Yes	2001	No
VDOT	VP6e	Widen	Pending	VA 28 (8-lane widen & interchanges)	I-66	VA 7	2	1	6	8	No	2015	Yes
VDOT	VP6f	Construct	Pending	VA 28 Bypass (Tri-County Parkway)	VA 234 (Sudley Road) @ Godwin Drive	I-66	0	5	0	6	No	2015	No
VDOT	VP6i	Study	Pending	VA 28 Bypass (Tri-County Parkway)	VA 234 (Sudley Road) @ Godwin Drive	VA 620	0	5	0	4-6	No	Not Coded	No
VDOT	VP6	Construct	N/A	VA 28 Bypass (Tri-County Parkway)	VA 620 (Braddock Road)	US 50	0	2	0	4	No	2004	No
VDOT	VP6j	Study	Pending	VA 28 Bypass (Tri-County Parkway)	US 50	Dulles Greenway/VA 607	0	2	0	4	No	Not Coded	No
VDOT	VP7r	Widen	Pending	US 29	Virginia Oaks Drive	I-66	2	5	4	6	No	2011	No
VDOT	VP7aa	Widen	Pending	US 29	ECL City of Fairfax (vic. Nutley St.)	Cedar Lane	2	2	4	6	No	2015	No
VDOT	VP7ab	Widen	Pending	US 29	Cedar Lane	I-495	2	2	4	6	No	2012	Yes
VDOT	VP7k	Widen	Approved	US 29 (as part of 28/29 interchange)	Trinity Pkwy.	VA 28 (add 3rd lane)	2	2	5	6	Yes	2001	No
VDOT	VP7j	Widen	Approved	US 29	VA 28 Centreville Road	Old Braddock Rd.	2	2	4	6	Yes	2001	No
VDOT	VP7g	Study	Pending	US 29	Fauquier County Line	I-66 (Gainesville)	2	2	4	6	No	not coded	Yes
VDOT	VP7n	Study	Pending	US 29	Pleasant Valley Drive	WCL of Fairfax	2	2	4	6	No	not coded	No

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VDOT	VP7s	Widen	Pending	US 29 (add NB lane)	I-66	Entrance to Conway Robinson MSF	3	2	4	5	No	2011	No
VDOT	VP8a	Construct	Pending	US 50 (Middleburg Bypass)	0.4 miles west of Middleburg WCL	US 50	0	2	0	2	No	2015	No
VDOT	VP8k	Widen	Pending	US 50	Middleburg Bypass	US 15	2	2	2	4	No	2015	No
VDOT	VP8ba	Widen	Pending	US 50	US 15	VA 860	2	2	2	4	No	2015	No
VDOT	VP8bb	Widen	Pending	US 50	VA 860 (Watson Road) (0.4 mi. East of US 15)	VA 616 (Goshen Road) (5.9 mi West of FXC Line)	2	2	2	4	No	2015	No
VDOT	VP8c	Widen	Pending	US 50	Loudoun Co. Line	VA 661 (Lee Rd.)	2	2	4	6	No	2020	No
VDOT	VP8n	Widen	Pending	US 50 (WBL)	I-66	Waples Mill Road	2	2	2	3	No	2020	No
VDOT	VP8g	Widen	Pending	US 50	I-66	WCL Fairfax City	2	2	4-6	8	No	2020	No
VDOT	VP8o	Reconstruct	Pending	US 50 Interchange	@ Courthouse Rd.		0	0	0	0	No	2005	Yes
VDOT	VP8h	Widen	Pending	US 50	ECL City of Fairfax	Arlington County Line	2	2	4	6	No	2020	No
VDOT	AR2e	Upgrade	Pending	US 50 (Arlington Blvd.)	ARC/FFX Line	Washington Blvd.	2	1	6	6	No	2020	No
VDOT	AR2f	Upgrade	Pending	US 50 (Arlington Blvd.)	Pershing Dr.	Ft. Myer Dr.	2	1	6	6	No	2020	No
VDOT	VP23a	Widen	Pending	VA 55 (John Marshall Highway)	Gainesville UM Church	US 29 @ VA 619	3	3	2	4	No	2011	No
VDOT	VP10j	Widen	Pending	VA 123	VA 7	I-495	2	2	6	8	No	2010	No
VDOT	VP10o	Widen	N/A	VA 123 (Dolley Madison Blvd.)	I-495 (inner loop ramps)	DTR Ramps	2	2	4	8	No	2002	Yes
VDOT	VP10ob	Widen	Pending	VA 123 (Dolley Madison Blvd.)	DTR Ramps	VA 694 (Great Falls St.)	2	2	4	6	No	2010	No
VDOT	VP10g	Widen	Pending	VA 123	Route 1	Horner Road	2	2	4	6	No	2010	No
VDOT	VP10s	Widen	Approved	VA 123	Horner Road	Devil's Reach Road	2	2	4	6	No	2015	No
VDOT	VP10ea	Widen	Pending	VA 123 (Ox Road)	FFX/PW Co Line	Hooes Rd.	2	2	2	6	No	2005	Yes
VDOT	VP10eb	Widen	Approved	VA 123 (Ox Road)	Hooes Rd.	Lee Chapel Rd.	2	2	2	6	No	2004	Yes
VDOT	VP10h	Widen	Approved	VA 123 (Ox Road)	Lee Chapel Rd.	Fairfax Co. Parkway	2	2	4	6	No	2015	No
VDOT	VP10q	Widen	Approved	VA 123 (Ox Road)	Lee Chapel Rd.	Burke Lake Rd.	2	2	2	4	No	2003	Yes
VDOT	VP10f	Widen	Pending	VA 123 (Ox Road)	Fairfax Co. Parkway	Burke Center Parkway	2	2	4	6	No	2015	No
VDOT	VP10r	Widen	Pending	VA 123	Burke Center Parkway	Braddock Road	2	2	4	6	No	2020	No
VDOT	VP10l	Widen	Approved	VA 123 (Ox Road)	Occoquan River Bridge		2	2	2	6	No	2006	No
VDOT	VP24a	Relocate	Approved	VA 215	0.5 mi. west of VA 28 intersection	VA 28	3	3	2	2	No	2010	Yes
VDOT	VP12d	Widen	Pending	VA 234 (Dumfries Road) (see also VI2j)	I-95	US 1	2	5	2	6	No	2011	Yes
VDOT	VP12b	Widen	Approved	VA 234 (Dumfries Road)	Waterway	Eclipse Dr.	2	2	2	4	No	2005	Yes
VDOT	VP12a	Widen	Pending	VA 234 (Dumfries Road)	Eclipse Dr.	Snowfall Dr.	2	2	2	4	No	2005	Yes
VDOT	VP12ea	Widen	Approved	VA 234 (Dumfries Road)	Snowfall Dr.	Purcell Rd.	2	2	2	4	No	2003	Yes
VDOT	VP12eb	Widen	Approved	VA 234 (Dumfries Road)	Purcell Rd.	649)	2	2	2	4	No	2003	Yes
VDOT	VP12l	Widen	Approved	VA 234 (Dumfries Road)	VA 234 Bypass (at Limstrong, VA 649)	SCL of Manassas	2	2	2	4	No	2010	No
VDOT	VP12j	Construct	Approved	VA 234 (Manassas Bypass)	VA 28	VA 234/649 S. of Manassas	0	5	0	4	Yes	2001	No
VDOT	VP12k	Widen/upgrade	Approved	VA 234 (Manassas Bypass)	VA 234 S. of Manassas	I-66	5	1	4	6	No	2020	No
VDOT	VP12o	Construct	Pending	VA 234 (Manassas Bypass)	I-66	Loudoun County Line	0	2	0	4	No	2010	Yes
VDOT	VP13c	Widen	Pending	VA 236 EB	Pickett Road	Olley Lane	2	2	4	5	No	2001	No
VDOT	VP13a	Widen	Pending	VA 236	Pickett Road	I-395	2	2	4	6	No	2020	No
VDOT	VP15g	Reconstruct		VA 267 (Dulles Toll Road)	@ I-495 Interchange		1	1	0	0	No	2003	Yes
VDOT	VP15f	Construct	Approved	VA 267 (Dulles Toll Road)	@ VA 634 (Moran Road)	Western Regional Park and Ride Lot	0	0	0	0	Yes	2001	No
VDOT	VP15d	Construct	Approved	VA 267 (Dulles Toll Road) EB	@ West Falls Church Metro Station	Transit Bus Bypass Lane	0	9	0	1	Complete	2000	No
VDOT	MW1	Widen	Pending	Dulles Airport Access Road	Dulles Airport	VA 123	1	1	4	6	No	2010	No
VDOT	VP21ca	Widen	N/A	Dulles Greenway Eastbound	VA 772 (Exit 6)	VA 28	1	1	4	5	Yes	2000	No
VDOT	VP21cb	Widen	N/A	Dulles Greenway Westbound	VA 28	VA 772 (Exit 6)	1	1	5	6	No	2001	No
VDOT	VP21b	Construct	N/A	Dulles Greenway Interchanges	@ VA 653 & @ VA 654		1	1	0	0	No	2004	No
VDOT	VP26	Study	N/A	Techway	Dulles Toll Road	MD State Line	0	0	0	0	No	not coded	Yes

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VDOT	VP18	Study	Pending	Western Transportation Corridor Study	I-95 in Stafford County	Maryland State Line	0	1	0	4	No	not coded	Yes
VDOT Urban													
VDOT	VU1a	Widen	Pending	VA 7 (King Street) - RR underpass	Commonwealth Ave.	Russell Rd.	2	2	3	4	No	2015	No
VDOT	VU1b	Widen	Pending	VA 7 (King Street)	I-395	Western City Limit of Alexandria	2	2	4	6	No	2011	Yes
VDOT	VU31	Widen	Approved	VA 7 (East Market Street)	Loudoun Street	Sycolin Road	3	3	2	4	No	2003	Yes
VDOT	VU32	Widen	Pending	US 15 (South King Street)	Evergreen Mill Road	SCL of Leesburg	3	2	2	4	No	2005	Yes
VDOT	VU40	Widen	Pending	US 29 (Lee Highway)	WCL of City of Fairfax	Chain Bridge Road	2	2	4	6	No	2012	Yes
VDOT	VU6b	Widen	Pending	US 29 (Lee Highway)	Chain Bridge Road	Eaton Place	2	2	4	6	No	2010	Yes
VDOT	VU21	Widen	Pending	VA 28 (Centreville Road)	SCL Manassas Park	NCL Manassas Park	2	2	4	6	Complete	1999	No
VDOT	VU29	Construct	Approved	VA 123 (Chain Bridge Road)	US 50	I-66	2	2	5	6	No	2010	Yes
VDOT	VU45	Widen	Approved	VA 234 (Dumfries Road)	South Corporate Limits	Hastings Drive	3	3	2	4	No	2010	Yes
VDOT	VU41	Reconstruct	N/A	VA 401 (South Van Dorn St.)	Edsall Rd.	Pickett Rd.	2	2	4	4	No	2003	Yes
VDOT	VU43	Reconstruct	Pending	Alabama Drive	South Elden Street	Van Buren Street	4	4	2	2	No	2003	No
VDOT	VU28a	Study	Pending	Battlefield Parkway	US 15 south of Leesburg	US 15 Bypass North	0	2	0	4-6	No	Not Coded	No
VDOT	VU28g	Construct	N/A	Battlefield Parkway	Edwards Ferry Raod	Catoctin Branch	0	2	0	4	No	2003	No
VDOT	VU28f	Construct	Pending	Battlefield Parkway	Fort Evans Road	Edwards Ferry Road	0	2	0	4	No	2010	No
VDOT	VU28b	Construct	Developer	Battlefield Parkway	US 15 south of Leesburg	Dulles Greenway	0	2	0	4	No	2005	No
VDOT	VU28e	Construct	Developer	Battlefield Parkway	Route 7	Fort Evans Road	0	2	0	4	No	2005	No
VDOT	VU28d	Construct	Pending	Battlefield Parkway	Sycolin Road	Route 7	0	2	0	4	No	2009	Yes
VDOT	VU28c	Construct	Developer	Battlefield Parkway	Dulles Greenway	Sycolin Road	0	2	0	4	No	2006	No
VDOT	VU46	Reconstruct	Pending	Beulah Road	Maple Avenue	NCL of Vienna	3	3	2	2	No	2005	Yes
City of Alexandria	VU3	Widen	Approved	Braddock Road	West Street	Mount Vernon Ave.	3	3	2	4	Yes	2001	No
VDOT	VU13a	Widen	Approved	Catoctin Circle	South Street	King Street	4	4	2	4	No	2002	Yes
City of Alexandria	VU2b	Construct	Approved	Clermont Ave.	Eisenhower Ave.	Duke St.	0	3	0	4	No	2011	Yes
VDOT	VU34b	Reconstruct	N/A	Cottage Street	Moore Avenue	Cedar Lane	4	4	2	2	No	2010	Yes
Town of Manassas P	VU52	Construct	N/A	Digital Drive/West Carondelet Drive	Manassas Drive	Blackhawk Court	0	3	0	2	No	2003	Yes
VDOT	VU30e	Reconstruct	Pending	East Elden Street	Monroe Street	Herndon Parkway East	3	3	4	4	No	2012	Yes
VDOT	VU30f	Widen	Pending	East Elden Street	Herndon Parkway East	Fairfax County Parkway	3	3	4	6	No	2012	Yes
VDOT	VU30d	Reconstruct	Pending	Elden Street	Sterling Road	Monroe Street	3	3	2	2	No	2020	No
VDOT	VU30a	Widen	Pending	Elden Street/Centreville Road	Worldgate Drive	Herndon Parkway	2	2	4	6	No	2007	Yes
VDOT	VSP26	Widen	Approved	Fairview Ave.	Nagle Street	Liberia Avenue	3	3	2	4	No	2004	Yes
City of Alexandria	VU35b	Construct	N/A	Mill Road Extension	Telegraph Rd.	DMV complex	0	3	0	2	No	2005	Yes
City of Alexandria	VU35a	Relocate	N/A	Mill Road Realignment	Stovall St.	Telegraph Rd.	3	3	4	4	No	2002	Yes
City of Alexandria	VU51a	Study	Pending	Potomac Yard Spine Road	US Route 1	G.W. Parkway	4	4	4	4	No	Not Coded	No
VDOT	VSP26b	Widen	Approved	Richmond Ave.	Dumfries Road	Ellicott Lane	3	3	2	4	No	2006	Yes
VDOT	VU10b	Widen	Pending	Spring Street	Herndon Parkway East	Fairfax County Parkway	3	3	4	6	No	2010	No
VDOT	VU33	Widen	Pending	Sycolin Road	VA 7/US 15 Bypass	SCL of Leesburg	3	3	2	4	No	2010	No
VDOT	VU48b	Widen	Pending	Wellington Road	Godwin Drive	VA 28 (Nokesville Road)	3	3	2	4	No	2007	Yes
Arlington County Secondary System													
Arlington Co. DPW	AR1b	Widen	Pending	US 29 (Lee Highway)	N. Quincy	N. Kenmore	2	2	4	6	No	2015	No
Arlington Co. DPW	AR3d	Widen	Pending	VA 120 (Glebe Road)	US 50	Henderson Rd.	2	2	4	6	No	2010	No
Arlington Co. DPW	AR17a	Widen	Pending	VA 237 (Washington Blvd.)	Wilson	Kirkwood	3	3	3	4	No	2010	No
Arlington Co. DPW	AR5a	Reconstruct	Pending	VA 244 (Columbia Pike)	Oakland St.	Washington Blvd.	2	2	4	5	No	2010	No
Arlington Co. DPW	AR8	Widen	Pending	Clark St.	12th St.	I-395	4	4	2	3	No	2010	No
Arlington Co. DPW	AR9	Construct	Pending	Crystal Dr. (northbound)	S. 12 St.	I-395	0	4	0	3	No	2010	No

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Arlington Co. DPW	AR26	Widen	Pending	N. Pershing Dr.	George Mason Dr.	VA 120	3	3	2	4	No	2010	No
Arlington Co. DPW	AR28b	Widen	Pending	N. Quincy St.	Wilson Blvd.	VA 237	3	3	2	4	No	2008	No
Arlington Co. DPW	AR29	Study	Pending	Study	Four Mile Run Drive	S. Glebe Rd.	0	2	0	4	No	Not Coded	Yes
Arlington Co. DPW	AR13	Widen	Pending	S. Joyce St.	15th St.	Army-Navy Drive	3	3	2	4	No	2002	Yes
Arlington Co. DPW	AR26	Widen	Pending	N. Pershing Dr.	George Mason Dr.	VA 120	3	3	2	4	No	2010	No
Arlington Co. DPW	AR28b	Widen	Pending	N. Quincy St.	Wilson Blvd.	VA 237	3	3	2	4	No	2008	No
Arlington Co. DPW	AR19a	Widen	Pending	Wilson Blvd.	N. Frederick	George Mason Dr.	2	2	4	6	No	2010	No
Arlington Co. DPW	AR19c	Widen	Pending	Wilson Blvd.	N. Quincy	Washington Blvd.	2	2	4	6	No	2020	No
Fairfax County Secondary System													
VDOT	FFX2a	Study	Pending	VA 602 (Reston Pkwy.)	VA 5320 (Sunrise Valley Dr.)	VA 606 (Baron Cameron Avenue)	3	3	4	6	No	Not Coded	No
VDOT	VSF2c	Widen	Pending	VA 608 (West Ox Road)	VA 6985 (Ox Trail)	VA 602 (Lawyers Road)	3	3	2	4	No	2004	Yes
VDOT	VSF2a	Widen	Pending	VA 608 (West Ox Road)	VA 6558 (Penderbrook Drive)	VA 6985 (Ox Trail)	3	3	2	4	No	2006	Yes
VDOT	VSF4h	Widen	Pending	VA 611 (Telegraph Road)	VA 633 (S. Kings Hwy.)	VA 644 (Franconia Road)	3	3	2	4	No	2015	Yes
VDOT	VSF4i	Widen	Pending	VA 611 (Telegraph Road)	VA 635 (Hayfield Road)	VA 633 (S. Kings Hwy.)	3	3	2	4	No	2010	Yes
VDOT	VSF4f	Study	Pending	VA 611 (Furnace Road)	VA 123 (Ox Road)	VA 642 (Lorton Road)	3	3	2	4	No	Not Coded	No
VDOT	VSF4a	Widen	Approved	VA 611 (Telegraph Road)	US 1	VA 7100 (Fairfax Co. Pkwy)	3	3	2	4	Yes	2002	No
VDOT	VSF4b	Widen	Approved	VA 611 (Telegraph Road)	VA 7100 (Fairfax Co. Pkwy)	VA 613 (Beulah St.)	3	3	2	4	Yes	2002	No
VDOT	VSF4c	Widen	Pending	VA 611 (Telegraph Road)	VA 613 (Beulah St.)	VA 635 (Hayfield Road)	3	3	2	4	No	2015	Yes
VDOT	VSF5a	Widen	Approved	VA 613 (Beulah Street)	VA 644 (Franconia Road)	Pkwy)	3	3	2	4	No	2004	Yes
VDOT	FFX5c	Study	Approved	VA 613 (S. Van Dorn St.)	VA 644	Kingstowne Village Pkwy.	3	3	4	6	No	Not Coded	No
VDOT	VSF7	Widen	Pending	VA 618 (Woodlawn Road)	US 1 (Richmond Highway)	VA 613 (Beulah Road)	3	3	2	4	No	2015	Yes
VDOT	VSF8g	Widen	Pending	VA 620 (Braddock Rd)	VA 7100 (Fairfax Co. Pkwy.)	VA 123 (Ox Road)	3	3	4	6	No	2011	No
VDOT	VSF8l	Study	Pending	VA 620 (Braddock Road)	VA 609 (Pleasant Valley Road)	Flat Lick Branch	4	3	2	2	No	Not Coded	No
VDOT	VSF8d	Study	Pending	VA 620 (Braddock Road)	VA 645 (Burke Lake Road)	VA 651 (Guinea Road)	3	3	4	6	No	Not Coded	No
VDOT	VSF8c	Study	Pending	VA 620 (Braddock Road) (HOV)	I-495	VA 645 (Burke Lake Road)	3	3	0	2	No	Not Coded	No
VDOT	VSF10e	Widen	Pending	VA 638 (Rolling Road)	VA 5297 (Delong Dr.)	VA 6922 (Odell Street) / Fairfax County Parkway	3	3	2	4	No	2010	Yes
VDOT	VSF10f	Widen	Pending	VA 638 (Rolling Road)	I-95	VA 5297 (Delong Dr.)	3	3	2	4	Yes	2000	No
VDOT	VSF10c	Widen	Pending	VA 638 (Pohick Road)	US 1	I-95	3	3	2	4	No	2015	Yes
VDOT	VSF10g	Construct	Pending	VA 638 (Rolling Road)	Connection to VA 4600 (Fullerton Road)		0	3	0	2	No	2004	Yes
VDOT	VSF10a	Widen	Approved	VA 638 (Rolling Road)	VA 7100 (Fairfax County Parkway)	VA 644 (Old Keene Mill Road)	3	3	2	4	No	2009	Yes
VDOT	VSF12a	Relocate	Approved	VA 641 (Pohick Road)	VA 638 (Rolling Road)/VA 790	VA 6070 (South Run Road)	3	3	2	2	Yes	2000	No
VDOT	VSF13d	Widen	Pending	VA 642 (Lorton Road)	VA 611 (Furnace Road)	VA 600 (Silverbrook Road)	3	3	2	4	No	2011	No
VDOT	VSF13e	Widen	Pending	VA 642 (Lorton Road)	VA 600 (Silverbrook Road)	US 1 (Richmond Highway)	3	3	2	6	No	2005	Yes
VDOT	VSF14c	Widen	Approved	VA 643 (Burke Center Parkway)	VA 645 (Burke Lake Road)	VA 6440 (Marshall Pond Road)	3	3	2	4	Yes	2001	No
VDOT	VSF14b	Widen	Approved	VA 643 (Lee Chapel Road)	VA 7100 (Fairfax County Parkway)	VA 644 (Old Keene Mill Road)	3	3	2	4	Yes	2002	No
VDOT	VSF15	Widen	Pending	VA 644 (Franconia Road)	VA 3290 (Craft Road)	VA 611 (Telegraph Road)	3	3	2	4	No	2015	Yes
VDOT	VSF16a	Widen	Approved	VA 645 (Burke Lake Road)	VA 643 (Lee Chapel Road)	VA 7100 (Fairfax County Parkway)	3	3	2	4	No	2005	Yes
VDOT	VSF16g	Widen	Pending	VA 645 (Stringfellow Road)	VA 7735 (Fair Lakes Blvd.)	US 50	3	3	2	4	No	2012	Yes
FFX CO	VSF36	Construct	N/A	VA 645 (Clifton Road)	VA 620 (Braddock Road)	US 29 (Lee Highway)	3	3	2	4	No	2004	No
VDOT	VSF33a	Widen	Pending	VA 651 (Guinea Road)	VA 6197 (Roberts Parkway)	VA 4807 (Pommeroy Drive)	3	3	2	4	No	2015	Yes

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VDOT	VSF33d	Widen	Pending	VA 651 (Guinea Road)	VA 620 (Braddock Road)	VA 2430 (Braeburn Road)	3	3	2	4	No	2015	Yes
VDOT	VSF17b	Construct	Pending	VA 655 (Shirley Gate Road)	VA 7100 (Fairfax County Parkway)	VA 620 (Braddock Road)	0	3	0	4	No	2015	Yes
VDOT	VSF18c	Widen	N/A	VA 657 (Centreville Road)	VA 8390 (Metrotech Dr.)	VA 668 (McLearen Road)	3	3	4	6	No	2020	No
VDOT	VSF18b	Widen	N/A	VA 657 (Centreville Road)	VA 8390 (Metrotech Dr.)	VA 668 (McLearen Road)	3	3	2	4	No	2013	Yes
VDOT	VSF18e	Study	Pending	VA 657 (Centreville Road)	VA 668 (McLearen Rd)	VA 608 (Frying Pan Rd)	3	3	4	6	No	Not Coded	No
VDOT	VSF18h	Widen	Pending	VA 657 (Centreville Road)	VA 608 (West Ox Rd)	VA 608 (Frying Pan Rd)	3	3	2	4	No	2008	Yes
VDOT	VSF35b	Study	Pending	VA 662 (Stone Rd/Poplar Tree Rd)	US 29	VA 8460 (Stonecroft Blvd.)	3	3		4	No	Not Coded	No
VDOT	VSF35	Widen	Pending	VA 662 (Poplar Tree Road)	VA 620 (Braddock Road)	VA 7022 (Braddock Ridge Road)	3	3	2	4	Yes	2000	No
VDOT	VSf21c	Construct	Approved	VA 673 (McLearen Rd)	VA 608	VA 602/Interchange at Fairfax Co. Parkway	0	3	0	4	No	2015	No
VDOT	VSF21b	Widen	Approved	VA 673 (McLearen Rd)	VA 657 (Centreville Road)	VA 608	3	3	2	4	No	2015	No
VDOT	VSF22a	Reconstruct	N/A	VA 674 (Spring Vale Road)	Bridge and Approaches at Piney Run		4	4	1	2	No	2015	Yes
VDOT	VSF22e	Widen	N/A	VA 674 (Hunter Mill Road)	VA 267 (Dulles Toll Road)	Crowell Road	3	3	2	4	No	2010	No
VDOT	VSF36	Relocate		VA 675 (Sunset Hills Road)	West of Edlin School	VA 675 (Crowell Road)	3	3	4	4	No	2010	No
VDOT	VSF24	Widen	N/A	VA 684 (Spring Hill Road)	VA 7 (Leesburg Pike)	VA 6034 (International Drive)	3	3	2	4	No	2007	Yes
VDOT	VSF33b	Widen	Approved	VA 6197 (Roberts Parkway)	VA 643 (Burke Centre Parkway)	VA 7137 (New Guinea Rd)	3	3	2	4	Yes	2001	No
VDOT	VSF25a	Construct	Approved	VA 7100 (Fairfax County Parkway)	VA 606 (Baron Cameron Avenue)	VA 7 (Leesburg Pike)	0	5	0	4	Yes	2001	No
VDOT	VSF25u	Construct	Approved	VA 7100 Interchange	@ VA 606 (Baron Cameron Ave.)		0	0	0	0	Yes	2001	No
VDOT	VSF25c	Construct	Approved	VA 7100 (Fairfax County Parkway)	VA 675 (Sunset Hills Road)	VA 606 (Baron Cameron Ave.)	0	5	0	6	Yes	2001	No
VDOT	VSF25z	Upgrade	Pending	VA 7100 (Fairfax County Parkway)	I-66	VA 7735 (Fair Lakes Pkwy)	2	5	6	6	No	2010	No
VDOT	VSF25y	Widen	Pending	VA 7100 with interchanges	VA 7735 (Fair Lakes Pkwy)	US 50	2	5	4	6	No	2010	Yes
VDOT	VSF25g	Widen	Approved	VA 7100 (Fairfax County Parkway)	VA 123 (Ox Road)	I-66	5	5	4	6	No	2015	No
VDOT	VSF25e	Widen	Approved	VA 7100 (Fairfax County Parkway)	I-66	VA 5320 (Sunrise Valley Dr.)	5	5	4	6	No	2015	No
VDOT	VSF25w	Widen	Approved	VA 7100 (Fairfax County Parkway)	VA 620 (Braddock Rd)	US 29/VA 608 (West Ox Rd)	5	5	4	5	Yes	2001	No
VDOT	VSF25j	Widen	Approved	VA 7100 (Fairfax County Parkway)	VA 636 (Hooes Road)	VA 640 (Sydenstricker Road)	2	2	4	6	No	2015	No
VDOT	VSF25l	Construct	Pending	VA 7100 (Fairfax County Parkway)	VA 640 (Sydenstricker Road)	Parkway)	0	2	0	2	No	2015	No
VDOT	VSF25n	Construct	Approved	VA 7100 (Fairfax County Parkway)	VA 4600 (Fullerton Road)	VA 7900 (Fran.-Spring. Pkwy)	0	1	0	6	No	2006	Yes
VDOT	VSF25s	Construct	Pending	VA 7100 Fairfax County Parkway	Interchange at VA 641 (Pohick Road)		0	0	0	0	No	2002	No
VDOT	VSF26	Construct	Pending	Parkway)	VA 7100 (Fairfax County Parkway)	VA 2677 (Frontier Drive)	5	5	4	4+2	No	2010	No
Fairfax County Secondary System													
FFX CO	FFX3c	Study	Pending	VA 608 (Frying Pan Rd.)	VA 28	VA 657 (Centreville Rd.)	3	3	2/4	6	No	Not Coded	No
FFX CO	FFX4	Study	Pending	VA 609 (Pleasant Valley Road)	US 29	US 50	3	3	2/4	4	No	Not Coded	No
FFX CO	FFX5d	Construct	Pending	VA 613 (S. Van Dorn St.)	Kingstowne Blvd.	VA 611	0	3	0	4	No	2003	No
FFX CO	FFX5e	Widen	Pending	VA 613 (S. Van Dorn St.)	Kingstowne Blvd.	VA 611	3	3	4	6	No	2015	No
FFX CO	FFX6	Study	Pending	VA 620 (Braddock Rd.)	VA 662 (Stone Rd.)	Flatlick Branch	3	3	2	4	No	Not Coded	No
FFX CO	FFX8	Study	Pending	VA 640 (Sydenstricker Rd.)	VA 644 (Old Keene Mill Rd)	VA 7100 (Fairfax County Parkway)	3	3	2	4	No	Not Coded	No
FFX CO	FFX9a	Study	Pending	VA 643 (Lee Chapel Rd.)	VA 123 (Ox Road)	VA 7100 (Fairfax County Parkway)	3	3	2	4	No	Not Coded	No
FFX CO	FFX10	Study	Pending	VA 644 (Old Keene Mill)	VA 643	VA 7100 (Fairfax County Parkway)	3	3	2	4	No	Not Coded	No

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FFX CO	FFX11a	Widen	Pending	VA 645 (Stringfellow Rd.)	US 50	VA 7100 (Fairfax County Parkway)	3	3	2	4	No	2010	No
FFX CO	FFX12a	Construct	Pending	VA 651 (New Guinea Rd.)	VA 123 (Ox Road)	Roberts Rd.	0	3	0	4	No	2010	No
FFX CO	FFX14	Study	Pending	VA 657 (Walney Rd.)	VA 662 (Poplar Tree)	Westfields. Blvd.	3	3	2	4	No	Not Coded	No
FFX CO	FFX15a	Study	Pending	VA 662 (Poplar Tree Rd.)	VA 645 (Stringfellow Rd.)	Westfields. Blvd.	3	3	2	4	No	Not Coded	No
FFX CO	FFX16a	Study	Pending	VA 665 (Fox Mill Rd.)	VA 602 (Reston Pkwy)	VA 7100 (Fairfax County Parkway)	3	3	2	4	No	Not Coded	No
FFX CO	FFX17a	Study	Pending	VA 666 (Monroe St.)	VA 608 (W. Ox Rd.)	VA 665 (Fox Mill)	3	3	2	4	No	Not Coded	No
FFX CO	FFX17b	Widen	Pending	VA 666 (Monroe St.)	VA 665 (Fox Mill)	Herndon	3	3	2	6	No	2010	No
FFX CO	FFX18	Widen	Pending	VA 668 (McLearen Rd.)	VA 28	VA 657 (Centreville Rd.)	3	3	2	6	No	2010	No
FFX CO	FFX20b	Widen	Pending	VA 674 (Hunter Mill Rd.)	VA 673 (Vale Rd.)	VA 123 (Chain Bridge Road)	3	3	2	4	No	2020	No
FFX CO	FFX21b	Study	Pending	VA 675 (Sunset Hills Rd.)	VA 828 (Wiehle Ave.)	VA 7100 (Fairfax County Parkway)	3	3	4	6	No	Not Coded	No
FFX CO	FFX22a	Construct	Pending	VA 828 (Wiehle Ave.)	VA 602 (Reston Pkwy.)	VA 7100 (Fairfax County Parkway)	0	3	0	4	No	2001	No
FFX CO	FFX22b	Construct	Pending	VA 828 (Wiehle Ave.)	VA 7100 (Fairfax County Parkway)	VA 228 (Dranesville Road)	0	3	0	4	No	2002	No
FFX CO	FFX22c	Study	Pending	VA 828 (Wiehle Ave.)	VA 228 (Dranesville Road)	Loudoun Co. Line	0	3	0	4	No	Not Coded	No
FFX CO	VSF39	Construct	N/A	VA 7768 (Potomac Bend Blvd.)	VA 642 (Lorton Road)	VA 638 (Pohick Road)	0	3	0	4	Yes	2000	No
FFX CO	FFX24b	Widen	Pending	VA 8460 (Stonecroft Blvd.)	VA 662 (Poplar Tree Road)	VA 661 (Old Lee Rd.)	3	3	4	6	Yes	2000	No
FFX CO	FFX24c	Construct	Pending	VA 8460 (Stonecroft Blvd.)	VA 661 (Old Lee Rd.)	Willard Rd.	0	3	0	4	Complete	2000	No
FFX CO	FFX24d	Widen	Pending	VA 8460 (Stonecroft Blvd.)	VA 661 (Old Lee Rd.)	Willard Rd.	3	3	4	6	No	2010	No
FFX CO	FFX24e	Construct	Pending	VA 8460 (Stonecroft Blvd.)	Willard Rd.	US 50	0	3	0	4	Complete	2000	No
Loudoun County Secondary System													
VDOT	VSL10bd	Widen	Pending	VA 607 (Loudoun County Pkwy)	Gloucester Parkway	Russell Branch Parkway	4	3	2	4	No	2007	Yes
VDOT	VSL10ba	Widen	Pending	VA 607 (Loudoun County Pkwy)	VA 625 (Waxpool Road)	W&OD Trail	3	3	4	6	No	2010	No
VDOT	VSL10bb	Widen	Pending	VA 607 (Loudoun County Pkwy)	W&OD Trail	Redskin Park Drive	4	3	2	6	No	2010	No
VDOT	VSL10bc	Widen	Pending	road)	Redskin Park Drive	Gloucester Parkway	4	3	2	6	No	2010	Yes
VDOT	VSL1c	Widen	Pending	VA 606 (Old Ox Rd.)	VA 621	US 50	4	3	2	4	No	2004	Yes
VDOT	VSL1b	Widen	Pending	VA 606 (Old Ox Rd.)	VA 634	VA 621	4	3	2	4	No	2015	Yes
VDOT	VSL12	Widen	Pending	VA 625 (Church Rd.)	VA 28	VA 637	3	3	2	4	No	2005	Yes
VDOT	VSL12b	Widen	Pending	VA 625 (Waxpool Rd.)	Panorama Parkway	Broad Run	3	3	4	6	No	2005	Yes
VDOT	VSL12c	Widen	Pending	VA 625 (Waxpool Rd.)	Broad Run	VA 28	3	3	4	6	No	2005	No
VDOT	VSL4c	Construct	Pending	VA 659 Relocated	PWCL	US 50	0	3	0	4	No	2015	No
VDOT	VSL4b	Construct	Pending	VA 659 Relocated	US 50	VA 659 (Belmont Ridge Rd.)	0	3	0	4	No	2012	No
VDOT	VSL4d	Widen	Pending	VA 659 (Belmont RidgeRoad)	VA 659 Relocated	VA 625 (Waxpool Road)	4	3	2	4	No	2010	No
VDOT	VSL4a	Widen	Pending	VA 659 (Belmont Ridge Rd.)	VA 625 (Waxpool Road)	VA 642 (Hearford Lane)	4	3	2	4	No	2010	Yes
VDOT	VSL4ab	Widen	Pending	Relocated	VA 642 (Hearford Lane)	VA 7	4	3	2	4	No	2011	Yes
VDOT	VSL21	Reconstruct	Approved	WRPnR)	VA 789 (Lockridge Road)	Randolph Drive	4	3	2	2	Yes	2001	No
VDOT	VSL42	Widen	Approved	VA 634 (Lockridge/Moran Road)	VA 606 (Old Ox Road)	Randolph Drive	4	3	2	4	Yes	2010	No
VDOT	VSL43	Reconstruct	Approved	VA 789 (Lockridge Road) (associated w/ WRPnR)	VA 1071	0.29 mi. W. of VA 634 (Moran Road)	4	3	2	2	Yes	2001	No
Loudoun Co.	VSL44	Widen	N/A	VA 772 (Ryan Road)	VA 659 (Belmont Ridge Rd.)	Dulles Greenway @ exit #6	4	3	2	6	No	2004	Yes

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VDOT	VSL11b	Construct	Approved	VA 882 (Franklin Park Dr.)	0.3 mi s of VA 7	VA 7	0	4	0	2	?	1998	No
Loudoun Co. DPW	VSL40a	Widen	N/A	VA 901 (Claiborne Parkway)	VA 640 (Ashburn Farm Road)	W&OD Trail	4	3	2	4	No	2007	No
Loudoun Co. DPW	VSL40b	Construct	N/A	VA 901 (Claiborne Parkway)	W&OD Trail	VA 7	0	3	0	4	No	2007	No
Loudoun Co. DPW	VSL41	Construct	N/A	VA 2020 (Ashburn Village Blvd.)	Dulles Greenway @ exit #6	VA 640 (Farmwell Road)	0	4	0	2	No	2000	No
Loudoun Co. DPW	VSL39	Construct	N/A	Broadlands Boulevard (Ryan Bypass)	VA 659	VA 625	0	3	0	4	No	2005	No
Prince William County Secondary System													
Prince William Co. DI	VSP57a	Construct	Pending	Route 29 (Parallel)	US 29 (Lee Highway) (near US 15)	Sommerset Crossing Drive	0	4	0	4	No	2025	No
Prince William Co. DI	VSP1b	Construct	Approved	VA 610 (Cardinal Drive)	VA 2253 (Greenmount Drive)	I-95	3	3	2	4	Yes	2001	No
VDOT	VSP2a	Widen	Approved	VA 619 (Linton Hall Road)	US 29 (Lee Highway)	VA 675 (Glenkirk Road)	4	3	2	6	No	2006	Yes
VDOT	VSP2b	Widen	Approved	VA 619 (Linton Hall Road)	VA 675 (Glenkirk Road)	VA 621 (Devlin Road)	4	3	2	4	No	2006	No
VDOT	VSP2e	Widen	Approved	VA 619 (Linton Hall Road)	VA 621 (Devlin Road)	VA 28 (Nokesville Road)	4	3	2	4	No	2010	Yes
Prince William Co. DI	VSP3a	Widen	N/A	VA 621 (Balls Ford Road)	VA 234 (Sudley Road)	Bethlehem Road	4	3	2	4	No	2010	No
Prince William Co. DI	VSP3b	Widen	N/A	VA 621 (Balls Ford Road)	Bethlehem Road	VA 234 Bypass	4	3	2	4	No	2010	No
VDOT	VSP3d	Widen	Pending	VA 621 (Devlin Road)	Route 674 (Wellington Road)	Route 619 (Linton Hall Road)	3	3	2	4	No	2025	No
VDOT	VSP40a	Construct	Pending	VA 635 (Cherry Hill VRE Access Road)	US 1	Future VRE Station site	0	4	0	2	No	2010	Yes
Prince William Co. DI	VSP5e	Widen	Pending	VA 640 (Minnieville Road)	VA 643 (Spriggs Road)	VA 234	3	3	2	4	No	2020	No
Prince William Co. DI	VSP5d	Widen	Pending	VA 640 (Minnieville Road)	VA 610 (Cardinal Drive)	VA 643 (Spriggs Road)	3	3	2	4	No	2010	No
VDOT	VSP15c	Widen	Pending	VA 640 (Minnieville Road)	VA 639 (Horner Road)	VA 641 (Old Bridge Road)	3	3	2	4	No	2010	Yes
Prince William Co. DI	VSP6	Widen	Pending	VA 641 (Old Bridge Rd.)	VA 3000 (Prince William Parkway)	VA 640 (Minnieville Rd.)	2	2	4	6	No	2020	No
Prince William Co. DI	VSP15d	Widen	N/A	VA 641 (Old Bridge Road)	VA 640 (Minnieville Rd.)	VA 906 (Occoquan Road)	2	2	4	6	No	2000	No
Prince William Co. DI	VSP8a	Widen	Pending	VA 643 (Purcell Rd.)	VA 234 (Dumfries Rd.)	VA 642 (Hoadly Rd.)	3	3	2	4	No	2020	No
Prince William Co. DI	VSP12a	Widen	Pending	VA 643 (Spriggs Rd.)	VA 234 (Dumfries Rd))	VA 642 (Hoadly Road)	3	3	2	4	No	2005	Yes
Prince William Co. DI	VSP9	Widen	Pending	VA 660 (Hornbaker Road - previously Bethlehem Road)	VA 28 (Nokesville Rd.)	VA 840 (University Boulevard Extended)	3	3	2	4	No	2020	No
Prince William Co. DI	VSP17c	Widen	Pending	VA 674 (Wellington Rd.)	VA 619 (Relocated Linton Hall Rd)	VA 621 (Devlin Road)	3	3	2	4	No	2004	Yes
VDOT	VSP17b	Widen	Approved	VA 674 (Wellington Rd.)	VA 621 (Devlin Road)	VA 668 (Rixlew Lane)	3	3	2	4	No	2012	Yes
Prince William Co. DI	VSP18	Widen	Pending	VA 676 (Catharpin Rd.)	VA 55 (John Marshall Highway)	Heathcote Blvd.	3	3	2	4	No	2020	No
Prince William Co. DI	VSP20b	Widen	Pending	VA 784 (Dale Blvd.)	I-95	VA 640 (Minnieville Rd.)	3	3	4	6	No	2020	No
VDOT	VSP 20c	Construct	Pending	VA 784 (Rippon Boulevard Extension)	US 1 (Jefferson Davis Highway)	Rippon VRE Station	0	3	0	4	No	2010	No
Prince William Co. DI	VSP47c	Construct	Pending	VA 840 (University Blvd.)	VA 660 (Hornbaker Rd.)	VA 234 Bypass	0	3	0	4	No	2010	No
Prince William Co. DI	VSP47b	Widen	Pending	VA 840 (University Blvd.)	VA 234 Bypass	Godwin Drive (vic. Manassas City Line)	3	3	2	4	No	2010	No
Prince William Co. DI	VSP47d	Construct	Pending	VA 840 (University Blvd.)	Route 660 (Hornbaker Road)	US 29 (Lee Highway)	0	3	0	4	No	2025	No
Prince William Co. DI	VSP46b	Construct	Pending	VA 1566 (Sudley Manor Drive Extension)	VA 619 (Linton Hall Road)	VA 234 Bypass	0	4	0	4	No	2020	No
Prince William Co. DI	VSP46	Construct	Pending	VA 1566 (Sudley Manor Drive Extension)	VA 234 Bypass	Rodes Drive	0	4	0	4	No	2020	No
Prince William Co. DI	VSP24	Construct	Pending	VA 1596 (Williamson Blvd)	Sudley Manor Dr.	Portsmouth Rd.	0	4	0	4	No	2020	No
Prince William Co. DI	VSP21c	Widen	N/A	VA 1600 (Ashton Ave.)	Coverstone Dr.	VA 621 (Balls Ford Rd.)	3	3	2	4	Yes	2005	No

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Prince William Co. DI	VSP25c	Widen	Pending	VA 1781 (Telegraph Rd.)	VA 3000 (Prince William Parkway)	VA 639 (Horner Rd.)	4	4	2	4	No	2015	No
Prince William Co. DI	VSP25b	Widen	Pending	VA 1781 (NewTelegraph Rd/Summit School Road)	VA 639 (Horner Rd.)	VA 640 (Minnieville Rd.)	4	4	2	4	No	2015	No
Prince William Co. DI	VSP25d	Construct	Pending	Extended)	VA 610 (Cardinal Drive)	VA 2480 (Benita Fitzgerald Drive)	0	3	0	4	No	2015	No
Prince William Co.	VSP23d	Widen	Pending	VA 3000 (Prince William Pkwy.)	VA 776 (Liberia Ave.)	VA 640 (Minnieville Rd.)	2	2	4	6	No	2025	No
Prince William Co. DI	VSP23f	Construct	Pending	VA 3000 (Prince William Parkway)	I-95	US 1 at Longview Drive	0	2	0	4	No	2004	Yes
Prince William Co.	VSP45	Construct	N/A	VA 861 (Clover Hill Road Extended)	VA 234 Bypass	Manassas Airport	0	4	0	4	No	2003	Yes
VDOT	VSP56a	Construct	Pending	East-West Connector	VA 674 (Wellington Road)	US 29 @ Ent. to Conway Robinson MSF	0	3	0	4	No	2011	No
VDOT	VSP49	Construct	Pending	Heathcote Boulevard	US 29	VA 676 (Catharpin Road)	0	3	0	4	No	2010	No
VDOT	VSP49b	Construct	Pending	Heathcote Boulevard	VA 676 (Catharpin Road)	US 15 (James Madison Highway)	0	3	0	4	No	2020	No
Prince William Co. DI	VSP54	Construct	N/A	North/South Road at Innovation	VA 840 (University Blvd.)	VA 674 (Wellington Road)/VA 660 (Bethlehem Road)	0	3	0	4	No	2005	Yes
Prince William Co. DI	VSP59	Construct	N/A	Peaks Mill (Purcell Road east)	Route 643 (Purcell Road)	Route 3000 (Prince William Parkway)	0	4	0	2	No	2025	No
Prince William Co. DI	VSP53	Construct	N/A	Ridgefield Road	VA 784 (Dale Blvd. - adjacent to Maplewood Plaza)	VA 3000 (Prince William Parkway - opp. Asdee Lane)	0	3	0	4	No	2002	Yes
Prince William Co. DI	VSP39	Widen	Pending	Russell Road	I-95	Dunlap Avenue	4	3	2	4	No	2010	No
Prince William Co. DI	VSP37	Construct	N/A	Somerset Crossing Dr. (Hymt Bypass)	US 29 (Lee Highway)	Old Carolina Road	0	4	0	4	No	2001	No
Prince William Co. DI	VSP58a	Construct	N/A	Wellington Station Road	University Drive	Route 674 (Wellington Road)	0	4	0	2	Yes	2000	No
Prince William Co. DI	VSP58b	Widen	N/A	Wellington Station Road	University Drive	Route 674 (Wellington Road)	4	4	2	4	No	2020	No
Anne Arundel County													
Anne Arundel County	AA3c	Widen		MD 2	Virginia Ave.	Southdown Road	2	2	2	6		2002	No
Anne Arundel County	AA3c	Widen		MD 2	Southdown Road	MD 214	2	2	2	4		2002	No
Anne Arundel County	AA3e	Widen		MD 2	MD 10	US 50/301	2	2	4	6		2005	No
Anne Arundel County	AA4c	Widen		MD 3	Brickhead Road	Stephen's Church Road	3	2	4	6		2002	No
Anne Arundel County	AA4e	Widen		MD 3	MD 32	Prince George's County Line	3	2	4	6		2020	No
Anne Arundel County	AA5b	Widen		MD 32	BW Parkway	East of MD 198 (Interchanges at MD 295, NSA)	2	1	4	4		2015	No
Anne Arundel County	AA5c	Widen		MD 32	BW Parkway	Howard County Line	1	1	4	8		2020	No
Anne Arundel County	AA5d	Widen		MD 32	MD 295	Anne Arundel County Line EB	1	1	2	3		2002	No
Anne Arundel County	AA2b	Widen		I-195	MD 295	BWI Airport	1	1	4	6		2005	No
Anne Arundel County	AA7	Widen		MD 170	MD 175	MD 100	2	2	2	4		2015	No
Anne Arundel County	AA8a	Widen		MD 175	MD 174	BW Parkway	2	2	2	4		2015	No
Anne Arundel County	AA8c	Widen		MD 175	MD 170	Higgins Drive	3	3	4	5		2020	No
Anne Arundel County	AA8b	Widen		MD 175	MD 32	MD 170	3	3	4	5		2015	No
Anne Arundel County	AA15	Widen		MD 295	MD 175	MD 100	1	1	4	8		2002	No
Anne Arundel County	AA11	Widen		College Parkway	Existing 4 lanes	Cape Saint Clair Road	3	3	2	4		2020	No
Anne Arundel County		Construct		Town Center Boulevard/Morgan Road	MD 174	MD 175	0	4	0	4		2005	No
Anne Arundel County	AA16	Widen		Waugh Chapel Road	MD 3	Silver Way	2	2	2	4		2005	No
Carroll County													
Carroll County	CA2	Widen		MD 26	MD 32	MD 97	2	2	2	4		2015	No
Carroll County	CA3A	Construct		MD 30 Hamstead Bypass	Drive	MD 30 North of Hampstead	0	2	0	2		2005	No
Carroll County	CA5	Widen		MD 97	MD 140	MD 496	4	4	2	4		2015	No
Carroll County	CA1B	Widen		MD 140	MD 31	Reese Road	0	2	0	8		2015	No
Carroll County	CA1C	Construct		MD 140 Westminster Bypass	Hughes Shop Road	Reese Road	0	1	0	4		2020	No

Agency	Project ID	Improvement	NEPA Review	Facility	From	TO	Facility Type from / to		No. of Lanes from / to		Under Cons or ROW acquired?	Completion Date or Status	In the TIP?
Carroll County	CA6	Construct		Kate Wagner Road	MD 32	Arnold/Old Westminster Pike	0	4	0	2		2002	No
Howard County													
Howard County	HW9a	Widen		US 1	Ducketts Lane	MD 32	2	2	4	6		2015	No
Howard County	HW10a	Construct		US 29	Full Interchange at MD 216		1	1		1		2001	No
Howard County	Hw10b	Construct		US 29	MD 175	Montgomery County Line	1	1	4	6		2005	No
Howard County	HW10c	Construct		US 29	Full Interchange at Hopkins/Gorman Road		1	1	0	0		2002	No
Howard County	HW10d	Construct		US 29	I-70	MD 100	1	1	6	8		2005	No
Howard County	HW3b	Widen		MD 32	MD 108	I-70	2	1	2	4		2015	No
Howard County	HW3c	Widen		MD 32	Cedar Lane	Anne Arundel County Line	1	1	4/6	8		2015	No
Howard County	HW1b	Widen		I-70	US 29	US 40	1	1	4	6		2020	No
Howard County	HW1a	Improvement		I-70	Full Interchange at Marriotsville Road		1	1	0	0		2020	No
Howard County	HW2	Widen		I-95 (HOV 2+)	Baltimore County Line	Prince George's County Line	1	1	8	8+2		not coded	No
Howard County		Widen		MD 100	Long Gate Parkway	US 29	1	1	4	6		2005	No
Howard County		Widen		MD 104	MD 103	MD 175	3	3	2	3		2015	No
Howard County	HW6b	Widen		MD 108	MD 104	MD 175	2	2	2	4		2020	No
Howard County		Construct		MD 175	Interchange Snowden River Parkway		2	2	0	0		2002	No
Howard County	HW7	Construct		MD 175	Interchange at MD 108		2	2	0	0		2020	No
Howard County	HW8b	Widen		MD 216	US 29	Pindell School Road	3	3	2	4		2015	No
Howard County	HW8a	Construct		MD 216	I-95	US 29	0	2	0	4		2005	No
Howard County	HW8c	Widen		MD 216	I-95	US 29	2	2	4	6		2020	No
Howard County	HW16c	Widen		Gorman Road	Stephens	US 1	3	3	2	4		2005	No
Howard County	HW17a	Widen		Johns Hopkins Road	US 29	Sanner Road	3	3	2	4		2002	No
Howard County	HW18a	Widen		Marriottsville Road	MD 99	MD 144	3	3	2	4		2015	No
Howard County	HW11a	Construct		Rogers Avenue	US 40	Town & Country Boulevard	0	3	0	4		2015	No
Howard County	HW11b	Widen		Rogers Avenue	US 40	Courthouse Drive	3	3	2	4		2015	No
Howard County		Widen		Rogers Avenue	North Ridge Road	US 29	3	3	4	5		2015	No
Howard County	HW13a	Construct		Sanner Road	MD 216	Johns Hopkins Road	0	3	0	4		2105	No
Howard County	HW13b	Widen		Sanner Road	Johns Hopkins Road	Pindell School Road	3	3	2	4		2015	No
FAMPO													
FAMPO	FAI1a	construct		I-95 interchange	at VA 627		1	1	0	0	no	2003	
FAMPO	FAI1c	reconst.		I-95 interchange	at VA 630		1	1	0	0	no	2015	
FAMPO	FAI1d	construct		I-95 interchange	at Spotsy Pkwy / 17 Bypass / US 1		1	1	0	0	no	2015	
FAMPO	FAI1b	study		I-95 HOV Phase I (peak)	PW Co. line	Proposed Outer Conn.	0	1	0	2	no	not coded	
FAMPO	FAP5	Widen		US 1	SCL	VA 3 interchange	3	3	4	6	no	2025	no
FAMPO	FAP6a	Widen		US 17 Bypass	VA 1	VA 2	2	2	2	4	no	2025	
FAMPO	FAP6b	study		US 17	.4 mi. north of VA 2	1.9 mi. south of VA 2	0	3	0	2	no	not coded	
FAMPO	FAP6c	Widen		US 17	I-95	VA 654	2	2	4	6	no	2025	no
FAMPO	FAP2b	Widen		VA 218 (White Oak Rd.)	VA 212 / VA 218 Connection	VA 600	3	3	2	4	no	2015	no
FAMPO	FAP2	realign		VA 218 / VA 212	VA 212	VA 218	0	3	0	4	yes	2002	yes
FAMPO	FAP7	Widen		VA 212 (Butler Rd)	US 1	VA 212 / VA 218 Connection	4	4	2	4	no	2025	no
FAMPO	FAP4a	construct		Outer Connector	US 1 in Stafford	VA 3 (west of Fredericksburg)	0	3	0	4	no	2010	
FAMPO	FAP4c	study		Outer Connector - NE Quadrant	US 1 in Stf.	US 17 Spts. ne of F'burg	0	3	0	4	no	not coded	

Agency	Project ID	Improvement	NEPA Review	Facility	From	TO	Facility Type from	Facility Type to	No. of Lanes from	No. of Lanes to	Under Cons or ROW acquired?	Completion Date or Status	In the TIP?
FAMPO	FAP4d	construct		Outer Connector SWQ (Spotsylvania)	VA 3	US 17 Bypass	0	3	0	4	no	2015	
STAFFORD COUNTY SECONDARY													
FAMPO	FAS7a	widen		VA 607	VA 626	VA 218	4	4	2	4	no	2005	
FAMPO	FAS7b	reconstruct		VA 607	VA 218	VA 3	4	4	2	4	no	2003	
FAMPO	FAS3c	Widen		VA 610 (Garrisonville Rd.)	VA 610 (existing 4 lane section)	VA 643	4	4	2	4	no	2006	yes
FAMPO	FAS3da	Widen		VA 610 (Garrisonville Rd.)	US 1	VA 684 (Mine Rd.)	4	3	6	8	no	2004	no
FAMPO	FAS3d	Widen		VA 610 (Garrisonville Rd.)	VA 684 (Mine Rd.)	VA 641	4	3	6	8	no	2015	no
FAMPO	FAS3e	Widen		VA 610 (Garrisonville Rd.)	VA 641	VA 648	4	3	4	6	no	2025	no
FAMPO	FAS8	reconstruct		VA 624	US 1	VA 626	4	4	2	4	no	2015	no
FAMPO	FAS29	Widen		VA 626 (Leeland Rd.)	new conn. With VA 624	VA 607	4	4	2	4	no	2015	no
FAMPO	FAS9	widen		VA 627	Existing VA 627	proposed I-95/VA 627 int.	4	4	2	4	no	2004	
FAMPO	FAS5b	Widen		VA 630 (Courthouse Rd)	I-95	VA 648	4	4	2	4	no	2015	no
FAMPO	FAS13	reconstruct		VA 648 (Shelton Shop Rd.)	VA 610	VA 627	4	4	2	4	no	2015	no
FAMPO	FAS11	construct		VA 684 Extension	VA 610	US 17	0	4	0	4	no	2015	
CITY OF FREDERICKSBURG													
FAMPO	FAS16	widen		VA 3 (William St.) (fredericksburg)	Mahone Dr.	US 1	3	3	4	6	no	2015	
FAMPO	FAS25	Widen		Princess Anne St.	US 1	Herndon St.	3	3	2	4	no	2015	
SPOTSYLVANIA COUNTY SECONDARY													
FAMPO	FAS22	widen		VA 3 (Spotsylvania)	VA 1112	VA 626	2	2	4	6	no	2005	
FAMPO	FAS23a	construct	pending	VA 208 Bypass (Spotsylvania)	West of Ta River	East of Po River	0	3	0	2	ROW	2006	yes
FAMPO	FAS23b	construct	pending	VA 208 Bypass (Spotsylvania)	West of Po River	West of Ni River	0	3	0	4	ROW	2004	yes
FAMPO	FAS26a	Widen		VA 606 (Mudd Tavern Rd.)	US 1	Caroline County Line	3	3	2	4	no	2025	no
FAMPO	FAS26b	Widen		VA 606 (Morris Rd)	US 1	VA 208	3	3	2	4	no	2025	no
FAMPO	FAS27	Widen		VA 608 (Massaponax Church Rd.)	VA 628	US 1	3	3	2	4	no	2025	no
FAMPO	FAS7a	Widen		VA 607 (Deacon Rd)	VA 218	VA 626	4	4	2	4	row	2004	yes
FAMPO	FAS17	widen		VA 612 (Spotsylvania)	Ni River Reservoir	VA 610	4	4	2	4	no	2025	no
FAMPO	FAS18	Widen		VA 620 (Harrison Rd)	VA 639	US 1	4	4	2	4	no	2006	yes
FAMPO	FAS9b	widen		VA 627 (Gordon Rd.)	VA 628	VA 620	4	4	2	4	no	2015	no
FAMPO	FAS9c	widen		VA 627 (Spotsylvania)	VA 610	VA 620	4	4	2	4	no	2000	yes
FAMPO	FAS28	Widen		VA 628 (Smith Station Rd)	VA 608	VA 627	4	4	2	4	no	2015	no
FAMPO	FAS19	widen		VA 636 (Hood Dr.)	US 1	VA 208	4	4	2	4	no	2005	
FAMPO	FAS19b	Widen		VA 636 (Mine Rd.)	US 1	VA 638	4	4	2	4	no	2015	no
FAMPO	FAS20a	widen	pending	VA 639 (Leavells Rd.)	VA 620	VA 208	4	4	2	4	no	2004	
FAMPO	FAS20b	widen		VA 639 (Leavells Rd.)	VA 208	VA 628	4	4	2	4	no	2025	
FAMPO	FAS20c	Widen		VA 639 (Bragg Rd.)	VA 618	VA 3	4	4	2	4	no	2004	yes
FAMPO	FAS21	construct		Parallel Facility to I-95 (Spotsylvania)	US 1	VA 3	0	4	0	4	no	2020	

Appendix B 2002 CLRP and FY 2003-2008 TIP Air Quality Conformity Transit Inputs

Agency	Improvemer	Environmental Review	Project	From	To	Under Construction?	Completion Date	In TIP?
WMATA	Construct	Approved	Outer F Route	Anacostia	Branch Ave.	Yes	2002	Yes
WMATA	Construct		Franconia/Springfield Parking Structure			No	2003	Yes
WMATA	Construct		West Falls Church/Dunn Loring Parking			No	2005	Yes
WMATA	Construct	Approved	New York Avenue Station			Yes	2005	Yes
WMATA	Construct	Approved	Largo Extension and Parking	Addison Rd.	Largo	Yes	2005	Yes
WMATA	Construct		Silver Spring Transit Center			No		Yes
WMATA	Construct		New Carrollton Parking			No	2004	Yes
WMATA	Construct		College Park Parking			No	2003	Yes
D.C.DPW	Construct		New York Ave. Metrorail Station	WMATA	Rhode Island Avenue Station		2005	Yes
D.C.DPW	Study		Metrorail Extensions MIS & PE				Not Coded	Yes
D.C.DPW	Study		Light Rail Feasibility Study					Yes
D.C.DPW	Study		Bus Shuttle Services					No
MDOT/ SHA	Construct		Silver Spring Transit Center	MARC Station Relocation			2003	Yes
MDOT/ SHA	Construct		Georgetown Branch Transitway	Bethesda	Silver Spring		2003	Yes
MDOT/ SHA	Construct	Pending	Branch Avenue Metro Access	I-95/I-495 (Capital Beltway)		No	2020	Yes
MDOT/ SHA	Reconstruct	Pending	MD 117 Park and Ride Lot	at I-270		No	2003	Yes
MDOT/ SHA	Construct		MARC Parking Expansion	Point of Rocks			2002	Yes
MDOT/ SHA	Study		Maglev Rail System	Baltimore / Washington				Yes
Mont. Co.	Construct		Clarksburg Transit Center	Clarksburg			2020	Yes
Mont. Co.	Construct		Damascus Park-and-Ride	SE quadrant of MD 108/MD 124		Yes	2002	Yes
Mont. Co.	Construct	N/A	Four Corners Transit Center	US 29/MD 193		No	2015	No
Mont. Co.		Pending	Georgetown Branch Trolley/Trail	Silver Spring	Bethesda (along CSX ROW)	Yes	2015	No
Mont. Co.	Study	Pending	Georgia Avenue Transitway (MD 97)	Glenmont Metrorail Station	Olney Town Center	No	2020	No
Mont. Co.	Construct	N/A	Germantown Transit Center	NE quadrant of MD 118/Crystal Rock Dr.		Yes	2001	Yes
Mont. Co.	Construct		Grovesnor Metro Parking Garage	Grosvenor Metrorail Station			2003	Yes
Mont. Co.	Construct	N/A	Kingsview Park and Ride	within Kingsview Shopping Center		No	2002	Yes
Mont. Co.			Metropolitan Grove Transit Center	Vicinity of Watkins Mill Road and MD 117			2015	Yes
Mont. Co.			Montrose Crossing MARC Station	Near Montrose Rd.	in North Bethesda		2015	Yes
Mont. Co.			Norbeck Road Bus Enhancement				2020	Yes
Mont. Co.			Norbeck Road Park and Ride	Norbeck Road at Georgia Avenue			2010	Yes
Mont. Co.	Study		North Bethesda Transitway	Grosvenor Metro Station	Mont. Mall thru Rock Spring Office Park	No		Yes
Mont. Co.	Construct	N/A	Olney Transit Center	adjacent to or north of MD 108		No	2010	Yes
Mont. Co.			Randolph Road Bus Enhancement				2015	Yes
Mont. Co.	Construct	N/A	Shady Grove Garage	Shady Grove Metro Station		Yes	2003	Yes
Mont. Co.	Construct	N/A	Shady Grove West Transit Center	Shady Grove West Area		No	2010	Yes
Mont. Co.	Construct	N/A	Takoma/Langley Xroads Transit Center	University Blvd/New Hampsire Blvd		No	2002	Yes
Mont. Co.	Construct	Pending	Veirs Mill Road Bus Enhancement	Rockville	Wheaton	No	2010	Yes
Mont. Co.	Construct	N/A	White Oak Park-and-Ride	NW quadrant of US 29/MD 650		No	2010	Yes

Agency	Improvemer	Environmental Review	Project	From	To	Under Construction?	Completior Date	In TIP?
P.G. Co.	Construct	N/A	Accokeek Fringe Parking Lot			Yes	2001	Yes
VDOT	Construct		Dulles Corridor Transit -Rail	Rt 772 (Loudoun Co.)	E. Falls Church Metro Station	No	2010	Yes
VDOT	Implement		Dulles Corridor Transit- Express Bus	Rt 772 (Loudoun Co.)	E. Falls Church Metro Station	No	2001	Yes
VDOT	Implement		Dulles Corridor Transit- Express Bus	Rt 772 (Loudoun Co.)	E. Falls Church Metro Station	No	2003	Yes
VDOT	Implement	Pending	I-95/I-395 Transit Service Improvements	Stafford County Line	Potomac River	No	2021	No
VDOT	Implement	Pending	I-95/I-395 Transit Service Improvements	Woodbridge	VRE stations	No	2021	No
VDOT	Implement		Feeder Bus	to Vienna Metrorail Station				Yes
VDOT	Construct	N/A	Dulles Corridor Park-and-Ride Lots	Reston East at Wiehle Ave	and Herndon-Monroe	Yes	2002	Yes
VDOT	Expand	N/A	I-95 PnR	Horner Road Park and Ride Lot	Phase IV	No	2001	Yes
VDOT	Construct	Approved	I-66 Commuter Lot	@ Stringfellow Rd. (375 spaces)		Yes	2001	No
VDOT	Construct	PCE-4	I-95 PnR	@ VA 234/US 1		Complete	1999	No
VDOT	Expand	Pending	I-95 PnR	Horner Road Park and Ride Lot	Phase III	Yes	2001	Yes
VDOT	Construct	CE-4	I-95 PnR	Sydenstricker and Hooes Roads		Complete	2000	Yes
VDOT	Reconstruct	PCE-1	I-95 PnR	VA 123 Park and Ride lot access		Complete	2000	No
VDOT	Expand	CE-1	I-95 PnR	@ Lorton Road		No	2003	Yes
VDOT	Study	Pending	US 1 Priority Bus	Stafford County	SCL Alexandria (I-95 Capital Beltway)	No	2010	No
VDOT	Study	Pending	US 1 Priority Bus	SCL Alexandria (I-95 Capital Beltway)	King Street Metro Station	No	2010	No
VDOT	Study	Pending	I-66 Transit Improvements	Metro Stations inside I-495	Underserved Locations inside I-495	No	2010	No
VDOT	Study	Pending	I-66 Transit Service Improvements	Fauquier County Line	Vienna	No	2010	No
VDOT	Study	Pending	VA 7 Transit Service Improvements	Tysons Corner	Baileys Crossroads	No	2010	No
VDOT	Study	Pending	US 50 Transit Service Improvements	Eastern Loudoun County	Arlington County	No	2010	No
VDOT	Study	Pending	I-66 Transit Improvements	Metro Stations inside I-495	Underserved Locations inside I-495	No	2010	No
VDOT	Study	Pending	VA 236 Priority Bus	City of Fairfax	City of Alexandria	No	2010	No
VDOT	Study	Pending	I-495 Transit Improvements	Woodrow Wilson Bridge	American Legion Bridge	No	2010	No
VDOT	Study	Pending	VA 7100 Priority Bus	US 1	VA 7	No	2010	No
VDOT	Study	Pending	VA 244 Transit Service Improvements	Baileys Crossroads	Pentagon	No	2010	No
Arlington Co. DPW	Study	Pending	Light Rail in the US 1 Corridor	King Street Metro Station	Potomac Yard	No	2002	Yes
VDOT	Study	Pending	Light Rail in the US 1 Corridor	Potomac Yard	Pentagon	No	2010	No
VDOT	Study	Pending	Light Rail	Manassas	Dulles Airport	No	2010	No
VDOT	Study	Pending	Circumferential Metro Rail	Dunn Loring	American Legion Bridge	No	2010	No
VDOT	Study	Pending	I-95 Corridor Metro Rail Extension	Franconia-Springfield	Lorton/Fort Belvoir	No	2010	No
VDOT	Study	Pending	I-95 Corridor Metro Rail Extension	Lorton/Fort Belvoir	Potomac Mills Mall	No	2010	No
PRTC	Implement	N/A	VRE Increased frequency of service	Fredericksburg to DC &	Manassas to DC	No	2010	Yes
Fairfax County			Park-and-Ride Lot Expansion	Franconia-Springfield			2004	Yes
Fairfax County	Construct	N/A	Backlick Road Park-and-Ride Lot	at Franconia Springfield Parkway		No	2003	Yes
Fairfax County	Construct	N/A	Seven Corners Transit Center	Seven Corners Shopping Center		No	2002	Yes
Fairfax County	Construct	Pending	Park-and-Ride Lot Expansion	Reston East Park-and-Ride Lot		No	2004	Yes
Fairfax County	Reconstruct	N/A	Park-and-Ride Lot Enhancements	@ Reston, Centreville, West Springfield		No	2002	Yes

Agency	Improvemer	Environmental Review	Project	From	To	Under Construction?	Completior Date	In TIP?
Fairfax County	Construct	Pending	Reston Transit Center	Reston Town Center		Yes	2003	Yes
Fairfax County	Construct	N/A	Transit Center	@ Seven Corners Shopping Center		No	2002	Yes
Fairfax County	Construct	N/A	Parking Garage	@ Vienna Metrorail Station		Complete	2001	Yes
Loudoun Co. DPW	Construct	Pending	Purcellville Park-and-Ride Lot	75-space park-and-ride lot.		No	2005	Yes
Loudoun Co. DPW	Construct	Pending	Town of Leesburg Park-and-Ride Lot	-150-space Park-and-Ride lot		No	2007	Yes
Loudoun Co. DPW	Bus service		Town of Leesburg in Loudoun County	Loudoun County Commuter Bus Service.			2025	Yes