

# DRAFT

## AIR QUALITY CONFORMITY ASSESSMENT

MARYLAND DEPARTMENT OF TRANSPORTATION  
DISTRICT OF COLUMBIA DEPARTMENT OF TRANSPORTATION  
AMENDMENTS TO THE 2009 CONSTRAINED LONG RANGE PLAN  
AND THE FY2010-2015  
TRANSPORTATION IMPROVEMENT PROGRAM  
FOR THE  
WASHINGTON METROPOLITAN REGION

September 4, 2009

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD  
METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

## EXECUTIVE SUMMARY

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

The report includes a summary of the approach and technical methods, including explanations of updated land activity forecasts and project descriptions. Exhibits show travel demand outputs (trips, VMT, etc.) and regional emissions for ozone season and fine particles pollutants for each of the three forecast years analyzed. Conformity assessment criteria are defined.

The findings of the assessment provide a basis for a determination of conformity of the 2009 CLRP and the FY2010-2015 TIP as amended to include the addition of the Purple Line Light Rail in Maryland, and the Return to L'Enfant development and the K St. Busway modifications in the District of Columbia.

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## **I. INTRODUCTION**

The Maryland Department of Transportation (MDOT) and the District Department of Transportation (DDOT) requested amendments to the 2009 Constrained Long Range Plan (CLRP) and the FY2010-2015 Transportation Improvement Program (TIP). MDOT's amendment, described in Appendix A, includes the addition of the 16-mile Purple Line light rail between Bethesda and New Carrollton in Montgomery and Prince George's Counties. DDOT's amendment, described in Appendix B, includes the key transportation components of the "Return to L'Enfant" development, as well as a technical correction to modify the cross section of K St. NW to accommodate the K St. Busway project. The amendments affect the air quality conformity analysis, and therefore required a new demonstration of air quality conformity before they could be adopted as plan and program elements by the Transportation Planning Board (TPB). The Departments of Transportation requested that TPB staff perform the assessment, and the TPB approved the scope of work, included as Appendix C, at its June 17, 2009 meeting. This report describes the technical methods and results of the assessment.

## **II. APPROACH**

Staff designed the scope of work for the conformity assessment to address all current technical and consultation requirements. These included requirements contained in the air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on January 24, 2008, and (3) as detailed in periodic FHWA / FTA and EPA guidance. These regulations specify both technical criteria and consultation procedures to follow in performing the assessment.

Per the conformity regulations, the analytical approach involves incorporating the proposed projects into the transportation networks for the plan and program (forecast years 2010, 2020 and 2030), performing travel demand and emissions analyses, and applying relevant evaluation criteria to assess conformity. The study effort utilizes the same travel demand model (TPB's Version 2.2 model), emissions factor model (EPA's Mobile6.2), and evaluation criteria as applied in the conformity assessment of the 2009 CLRP and the FY2010-2015 TIP, which was approved by the TPB on July 15, 2009. However the land activity assumptions were updated (Round 7.2A) to reflect refinements associated with the projects. TPB's consultation procedures were applied to solicit public comment and interagency consultation on the analysis.

### **III. TECHNICAL METHODS**

#### **A. Land Activity Forecasts**

With the addition of the Purple Line and the Return to L'Enfant amendments to the CLRP, COG staff asked local jurisdictions to review their land activity data and consider the potential impacts of the projects on the Round 7.2 Cooperative Forecasts. Montgomery County, Prince George's County, and the District of Columbia all made revisions to their data. The resulting Cooperative Forecasts are Round 7.2A. The Metropolitan Development Policy Committee (MDPC) approved the Round 7.2A Cooperative Forecasts at their July, 2009 meeting for use in the air quality conformity analysis. Correspondence relating to the updated land activity forecasts is included as Appendix D.

#### **B. Network Development**

The first step in the preparation of the travel forecasts was to update the 2009 CLRP networks to include the projects. 2010, 2020, and 2030 highway networks were prepared. Highway and transit network development files were modified to reflect the updates identified in Appendices A and B.

#### **C. Travel Modeling Process**

Using the same analytical approach as in the Spring, 2009 analysis, but with updated networks and land use, travel demand forecasting procedures were executed. Exhibit 1 graphically defines the geographical analysis areas of the travel demand model (modeled area), the 1-hour ozone nonattainment area (1983 Metropolitan Statistical Area), the 8-hour ozone nonattainment area, the PM<sub>2.5</sub> nonattainment area, and the wintertime CO nonattainment area. Exhibits 2 and 3 present Round 7.2A household data and employment data for each of the year in the conformity assessment. Exhibits 4A and 4B summarize work travel and daily travel for the modeled area as output by the mode choice model. Exhibit 5 presents average annual weekday vehicle trips and vehicle miles traveled.

#### **D. Emissions**

Using the same emissions factors developed in prior conformity analysis, staff executed the mobile source emissions calculations process to estimate required emissions for each milestone analysis year. This includes the estimation of emissions for the 2010, 2020 and 2030 analysis years. Exhibits 6 through 11 present these emissions for each milestone year. Exhibits 6A and 6B summarize ozone

season VOC and NO<sub>x</sub> emissions for the 1-hour and 8-hour areas respectively. Exhibits 7 and 8 summarize direct PM<sub>2.5</sub> and precursor NO<sub>x</sub> pollutant emissions. Exhibits 9-11 show data for these same pollutants in a bar chart format to provide a graphic representation of emissions relative to the budget for that pollutant.

#### **IV. CONFORMITY ASSESSMENT CRITERIA**

Each pollutant is assessed based on specific criteria. Ozone season pollutants must adhere to EPA-approved totals from the Metropolitan Washington Air Quality Committee's (MWAQC's) February, 2004 'severe area' (1-hour ozone) State Implementation Plan (SIP). These budgets received federal approval in Spring, 2005. Ozone season pollutants also must adhere to the recently approved 8-hour ozone 2008 Reasonable Further Progress (RFP) motor vehicle budgets which EPA found adequate on July 29, 2009. The conformity analysis also addressed the additional emissions budgets (2009 VOC and NO<sub>x</sub> and 2010 NO<sub>x</sub>) contained in the 8-hour ozone SIP, as well as budgets in the PM<sub>2.5</sub> SIP, which await EPA's signoff. Where there are no approved mobile budgets for PM<sub>2.5</sub> pollutants, EPA allows for an assessment that shows emissions in "action" scenarios are no greater than those in a 2002 base. This criterion was established and applied, with the concurrence of MWAQC, in all PM<sub>2.5</sub> conformity assessments done to date.

The exhibits show that estimated emissions adhere to all requirements, i.e., are either within the mobile source emissions budgets for each pollutant (including the proposed 8-hour ozone SIP budgets and PM<sub>2.5</sub> budgets awaiting EPA's approval actions), or meet emissions reduction requirements in the case of PM<sub>2.5</sub> pollutants.

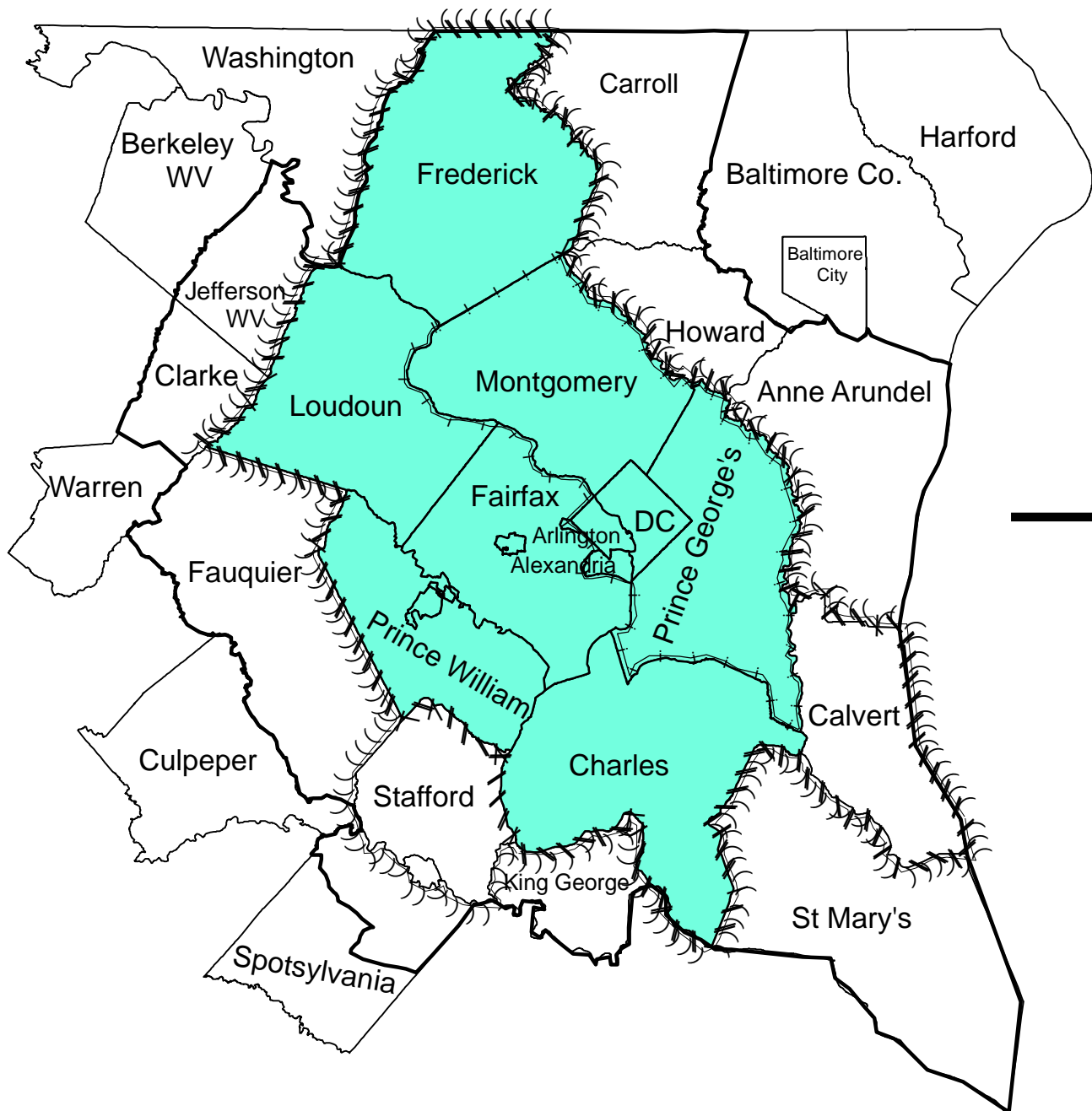
#### **V. FINDINGS**

The analytical results described in this air quality assessment provide a basis for a determination by the TPB of conformity of the 2009 CLRP and the FY2010-2015 TIP as amended to include the addition of the Purple Line Light Rail in Maryland, and the transportation components of the Return to L'Enfant development and the K St. Busway modifications in the District of Columbia.



# EXHIBIT 1

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



## EXHIBIT 2 HOUSEHOLD DATA

<b>MSA:</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>
<b>D.C.</b>	275963	313063	335196
<b>MONTGOMERY</b>	362768	408769	441230
<b>PR.GEORGES</b>	317113	344020	367004
<b>ARLINGTON</b>	99886	116059	120863
<b>ALEXANDRIA</b>	70434	77234	86110
<b>FAIRFAX</b>	402024	444927	479299
<b>LOUDOUN</b>	101667	133828	155939
<b>PR.WILLIAM</b>	157610	189677	214227
<b>FREDERICK</b>	87708	104139	123125
<b>CHARLES</b>	50951	64302	75850
<b>STAFFORD</b>	41384	58997	72662
<b>CALVERT</b>	32049	36026	38349
<b>SUBTOTAL</b>	<b>1,999,557</b>	<b>2,291,041</b>	<b>2,509,854</b>
<b>ADDITIONAL COUNTIES:</b>			
<b>HOWARD</b>	109550	125466	132965
<b>ANNE ARUNDEL</b>	202359	218039	229513
<b>CARROLL</b>	63495	71163	77401
<b>FREDERICKSBURG (VA)</b>	10003	12453	13955
<b>JEFFERSON</b>	20427	25957	33075
<b>N. SPOTSYLVANIA</b>	34702	48484	58733
<b>FAUQUIER</b>	26872	35729	47506
<b>CLARKE</b>	6142	6860	7770
<b>K.GEORGE</b>	8392	11395	14005
<b>ST MARY'S</b>	38876	49350	58127
<b>SUBTOTAL</b>	<b>520,818</b>	<b>604,896</b>	<b>673,050</b>
<b>TOTAL</b>	<b>2,520,375</b>	<b>2,895,937</b>	<b>3,182,904</b>

SOURCE:

MWCOG Revised Round 7.2A Cooperative Forecasts

BMC Round 7 Cooperative Forecasts

### EXHIBIT 3 EMPLOYMENT DATA

<b>MSA:</b>	<b>2010</b>	<b>2020</b>	<b>2030</b>
<b>D.C.</b>	788162	860915	922419
<b>MONTGOMERY</b>	510600	590675	673725
<b>PR.GEORGES</b>	362286	398536	454207
<b>ARLINGTON</b>	214501	259600	271715
<b>ALEXANDRIA</b>	109109	136032	156831
<b>FAIRFAX</b>	700872	800470	870584
<b>LOUDOUN</b>	158819	227459	275196
<b>PR.WILLIAM</b>	152264	197682	243725
<b>FREDERICK</b>	142412	158278	167257
<b>CHARLES</b>	62239	71749	77550
<b>STAFFORD</b>	43197	55065	65638
<b>CALVERT</b>	35157	44438	47137
<b>SUBTOTAL</b>	<b>3,279,618</b>	<b>3,800,899</b>	<b>4,225,984</b>
<b>ADDITIONAL COUNTIES:</b>			
<b>HOWARD</b>	165822	195195	219747
<b>ANNE ARUNDEL</b>	291592	342525	379142
<b>CARROLL</b>	67603	70821	72451
<b>FREDERICKSBURG (VA)</b>	29430	35467	41767
<b>JEFFERSON</b>	21058	26113	30674
<b>N. SPOTSYLVANIA</b>	35362	46607	55567
<b>FAUQUIER</b>	27325	35767	43367
<b>CLARKE</b>	6793	7685	8552
<b>K.GEORGE</b>	9032	13118	16343
<b>ST MARY'S</b>	59191	67275	71972
<b>SUBTOTAL</b>	<b>713,208</b>	<b>840,573</b>	<b>939,582</b>
<b>TOTAL</b>	<b>3,992,826</b>	<b>4,641,472</b>	<b>5,165,566</b>

SOURCE:

MWCOG Revised Round 7.2A Cooperative Forecasts

BMC Round 7 Cooperative Forecasts

NOTE: Includes Census Adjustment

**EXHIBIT 4A**

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

YEAR	MOTORIZED PERSON	TOTAL HBW AUTO PSN	HBW LOV AUTO DRV	HBW HOV AUTO DRV	TOTAL HBW AUTO DRV	HBW CAROCC	HBW TRANSIT	HBW TRANSIT (%)
2010	4,749,592	4,107,246	3,628,433	31,394	3,659,827	1.120	642,346	13.50%
2020	5,414,462	4,618,020	4,045,453	40,319	4,085,772	1.130	796,442	14.70%
2030	5,930,147	5,066,329	4,430,242	47,540	4,477,782	1.130	863,818	14.60%

**EXHIBIT 4B**

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

YEAR	MOTORIZED PERSON	TOTAL AUTO PSN	LOV AUTO DRV	HOV AUTO DRV	TOTAL AUTO DRV	TOTAL CAROCC	TOTAL TRANSIT	TRANSIT (%)
2010	25,751,254	24,589,108	19,422,411	31,394	19,453,805	1.260	1,162,146	4.50%
2020	29,118,655	27,591,176	21,831,833	40,319	21,872,152	1.260	1,527,479	5.20%
2030	31,779,252	30,114,558	23,891,314	47,540	23,938,853	1.260	1,664,694	5.20%

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

## EXHIBIT 5

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

	WORK AND NON-WORK AUTO DRV	TRUCKS (Med + Hvy)	MISC + THRU TRIPS	COMMERCIAL VEHICLES	TOTAL VEH. TRIPS	TOTAL VMT
<b>YEAR</b>						
<b>2010</b>	19,454,441	532,235	842,547	1,264,140	22,093,363	160,911,318
<b>2020</b>	21,872,884	618,515	971,960	1,444,805	24,908,164	182,789,481
<b>2030</b>	23,939,474	688,504	1,076,606	1,583,524	27,288,108	197,516,602

### Adjustment Factors to Convert AAWDT to Appropriate Season:

**Ozone Season AWDT: 1.05**

**Winter Season AWDT: 0.97**

**PM<sub>2.5</sub> Annual:**

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

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

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

	2002		2010		2020		2030	
	VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx
<b>I Network</b>								
Start	25.5	12.9	11.4	6.7	7.0	2.9	6.5	2.3
Running	58.9	230.9	30.5	120.2	20.4	39.0	20.8	28.8
Soak	11.6	-----	9.9	-----	5.6	-----	4.5	-----
<b>II Off-Network</b>								
Diurnal	2.4	-----	1.8	-----	1.0	-----	0.7	-----
Resting Loss	12.3	-----	8.5	-----	3.8	-----	2.5	-----
Local Roads	8.9	10.6	4.5	6.0	2.9	2.4	3.0	2.0
School Buses	0.4	6.1	0.4	4.5	0.2	1.7	0.2	0.5
Transit Buses	0.4	6.6	0.2	4.2	0.1	1.0	0.1	0.4
Auto Access	1.3	1.5	0.8	1.0	0.5	0.5	0.5	0.4
<b>Total</b>	121.8	268.7	67.8	142.6	41.5	47.5	38.8	34.4

TCMs	-0.4	-0.1	-0.2	-0.4	-0.1	-0.3	-0.1	-0.3
Net Emissions	121.4	268.6	67.7	142.1	41.4	47.3	38.7	34.1

Mobile Emissions Budgets:			97.4	234.7	97.4	234.7	97.4	234.7
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Budget Adherence Margin:			29.7	92.6	56.0	187.4	58.7	200.6
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## EXHIBIT 6 B

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

	2002		2010		2020		2030	
	VOC	NOx	VOC	NOx	VOC	NOx	VOC	NOx
<b>I Network</b>								
Start	25.0	12.7	11.2	6.6	6.8	2.9	6.3	2.2
Running	57.2	222.6	29.6	116.1	19.7	37.4	20.0	27.5
Soak	11.3	-----	9.6	-----	5.4	-----	4.3	-----
<b>II Off-Network</b>								
Diurnal	2.4	-----	1.7	-----	0.9	-----	0.6	-----
Resting Loss	11.9	-----	8.2	-----	3.7	-----	2.4	-----
Local Roads	8.7	10.4	4.4	5.9	2.9	2.3	2.9	2.0
School Buses	0.4	6.0	0.3	4.4	0.2	1.7	0.2	0.5
Transit Buses	0.4	6.5	0.2	4.1	0.1	1.0	0.1	0.4
Auto Access	1.3	1.5	0.8	0.9	0.5	0.4	0.5	0.4
<b>Total</b>	<b>118.6</b>	<b>259.6</b>	<b>65.9</b>	<b>138.1</b>	<b>40.2</b>	<b>45.7</b>	<b>37.4</b>	<b>32.9</b>

TCMs	-0.4	-0.1	-0.2	-0.4	-0.1	-0.3	-0.1	-0.3
Net Emissions	118.2	259.5	65.8	137.6	40.0	45.4	37.3	32.7

Mobile Emissions Budgets:			66.5	144.3	66.5	144.3	66.5	144.3
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Budget Adherence Margin:			0.7	6.7	26.5	98.9	29.2	111.6
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**EXHIBIT 7**  
**2009 CLRP and FY 2010-2015 TIP Amendment**  
**Direct PM<sub>2.5</sub> Emissions**  
**Mobile Source Emissions Inventories**  
**Air Quality Conformity Summary Table**  
**(Tons)**

SEASON 1 (JAN-APR)		Days	2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal
			Major Roads	120	2.5	294.0	1.7	206.9
Local Roads	120	0.1	16.3	0.1	15.6	0.1	16.6	
School Buses	76	0.3	20.2	0.0	2.2	0.0	1.3	
Transit Buses	120	0.1	10.2	0.0	1.6	0.0	1.2	
Auto Access	83	0.0	0.9	0.0	1.2	0.0	1.3	
<b>Total (Daily)</b>			2.9		1.9		1.9	
<b>SEASON TOTAL</b>				341.6		227.4		230.1

SEASON 2 (MAY-SEP)		Days	2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal
			Major Roads	153	2.5	389.5	1.8	281.7
Local Roads	153	0.1	22.3	0.1	21.6	0.1	22.8	
School Buses	83	0.2	20.2	0.0	2.3	0.0	1.4	
Transit Buses	153	0.1	12.1	0.0	2.2	0.0	1.5	
Auto Access	107	0.0	1.2	0.0	1.6	0.0	1.8	
<b>Total (Daily)</b>			3.0		2.0		2.1	
<b>SEASON TOTAL</b>				445.3		309.3		313.5

SEASON 3 (OCT-DEC)		Days	2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal
			Major Roads	92	2.3	211.0	1.7	158.1
Local Roads	92	0.1	12.2	0.1	12.1	0.1	12.7	
School Buses	55	0.2	12.5	0.0	1.5	0.0	0.7	
Transit Buses	92	0.1	7.0	0.0	1.3	0.0	0.8	
Auto Access	61	0.0	0.6	0.0	0.9	0.0	0.9	
<b>Total (Daily)</b>			2.7		1.9		1.9	
<b>SEASON TOTAL</b>				243.4		173.8		175.2

<b>ANNUAL TOTAL</b>							
			<b>1030.3</b>		<b>710.5</b>		<b>718.8</b>

Mobile Emissions Budgets: 1105.4

Budget Adherence Margin: 75.1



**EXHIBIT 8**  
**2009 CLRP and FY 2010-2015 TIP Amendment**  
**PM<sub>2.5</sub> Precursor Emissions: NOx**  
**Mobile Source Emissions Inventories**  
**Air Quality Conformity Summary Table**  
**(Tons)**

SEASON 1 (JAN-APR)		Days	2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal
			Major Roads-Starts	120	10.1	1214.0	4.2	499.9
Major Roads-VMT	120	122.2	14659.3	38.6	4627.7	28.3	3391.3	
Local Roads	120	6.4	770.4	2.3	279.6	1.9	232.6	
School Buses	76	3.9	294.6	1.5	111.3	0.4	31.2	
Transit Buses	120	4.1	488.3	1.0	121.8	0.3	41.0	
Auto Access	83	1.2	97.6	0.3	27.8	0.3	24.9	
<b>Total (Daily)</b>			147.8		47.9		34.4	
<b>SEASON 1 TOTAL</b>				17524.2		5668.1		4103.2

SEASON 2 (MAY-SEP)		Days	2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal
			Major Roads-Starts	153	7.2	1103.0	3.1	468.6
Major Roads-VMT	153	107.8	16490.6	34.5	5274.1	25.2	3858.7	
Local Roads	153	5.3	806.2	2.0	309.8	1.7	263.6	
School Buses	83	3.6	295.2	1.4	112.5	0.4	32.7	
Transit Buses	153	3.8	581.4	1.0	145.4	0.3	51.3	
Auto Access	107	0.9	94.5	0.3	28.7	0.2	26.2	
<b>Total (Daily)</b>			128.5		42.1		30.3	
<b>SEASON 2 TOTAL</b>				19370.8		6339.1		4598.3

SEASON 3 (OCT-DEC)		Days	2010		2020		2030	
			Daily	seasonal	Daily	seasonal	Daily	seasonal
			Major Roads-Starts	92	8.8	807.4	3.8	349.5
Major Roads-VMT	92	104.2	9585.0	35.3	3244.7	26.9	2476.7	
Local Roads	92	5.5	503.0	2.1	196.7	1.9	170.3	
School Buses	55	3.5	193.2	1.3	72.1	0.3	17.0	
Transit Buses	92	3.7	337.7	0.8	77.4	0.3	27.0	
Auto Access	61	1.0	60.9	0.3	18.9	0.3	17.5	
<b>Total (Daily)</b>			126.6		43.7		32.7	
<b>SEASON 3 TOTAL</b>				11487.2		3959.4		2984.9

<b>ANNUAL TOTAL</b>			<b>48382.2</b>		<b>15966.6</b>		<b>11686.4</b>
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Mobile Emissions Budget: 51359.9

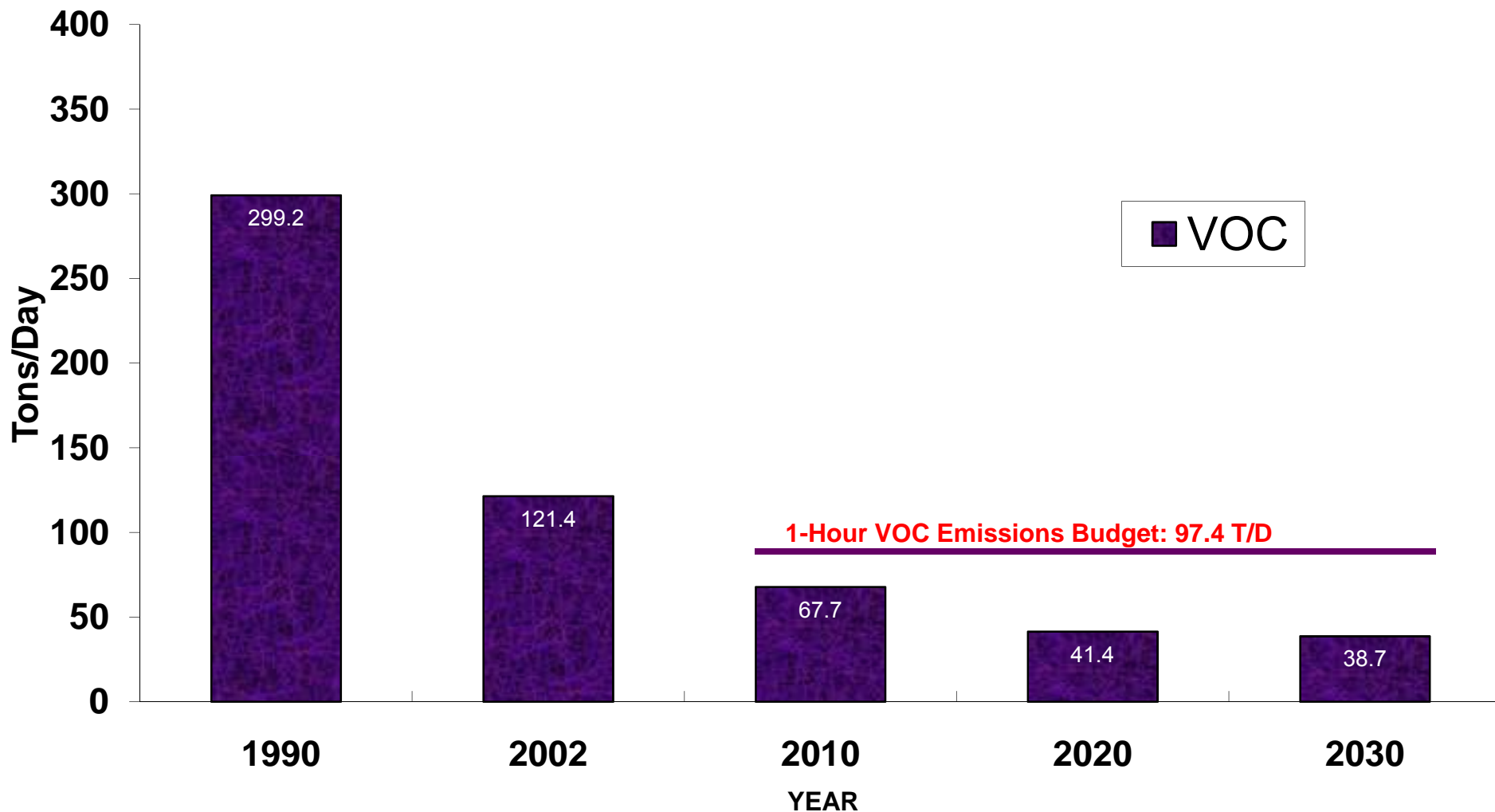
Budget Adherence Margin: 2977.7

# EXHIBIT 9A

## Mobile Source VOC Emissions

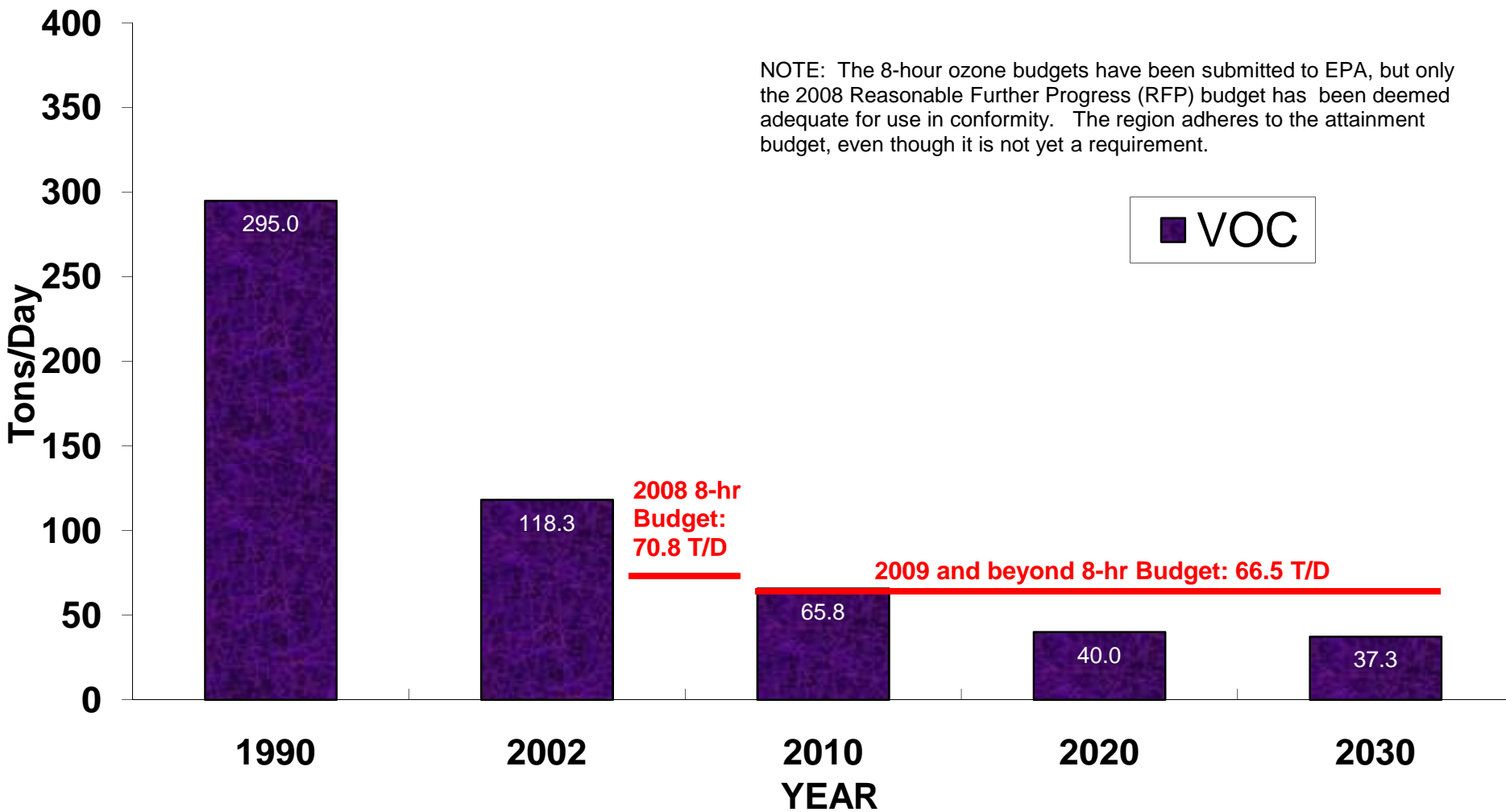
### for the 1-Hour Ozone Nonattainment Area

### 2009 CLRP and FY 2010-2015 TIP AMENDMENT



# EXHIBIT 9B

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

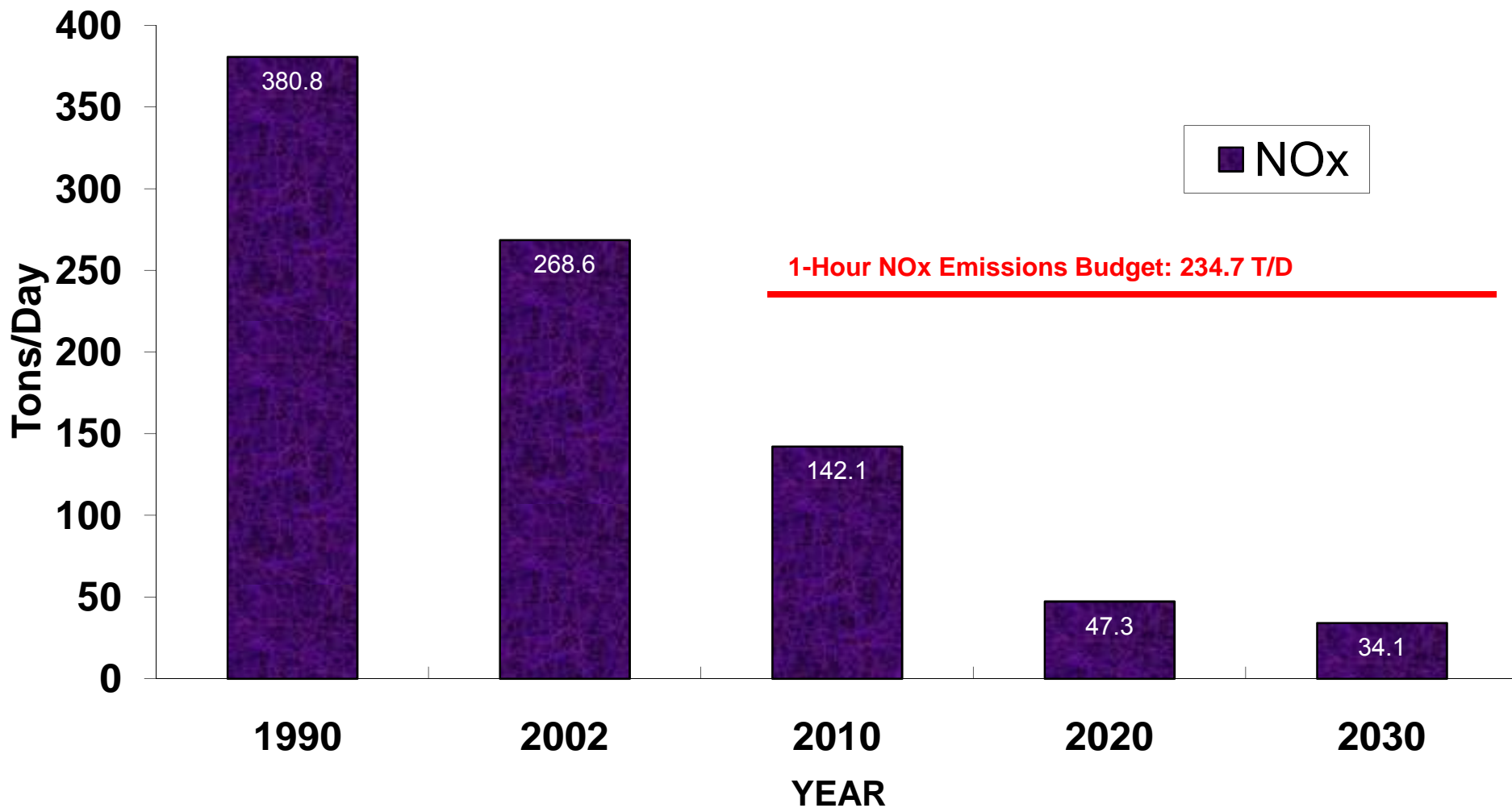


# EXHIBIT 10A

## Mobile Source NOx Emissions

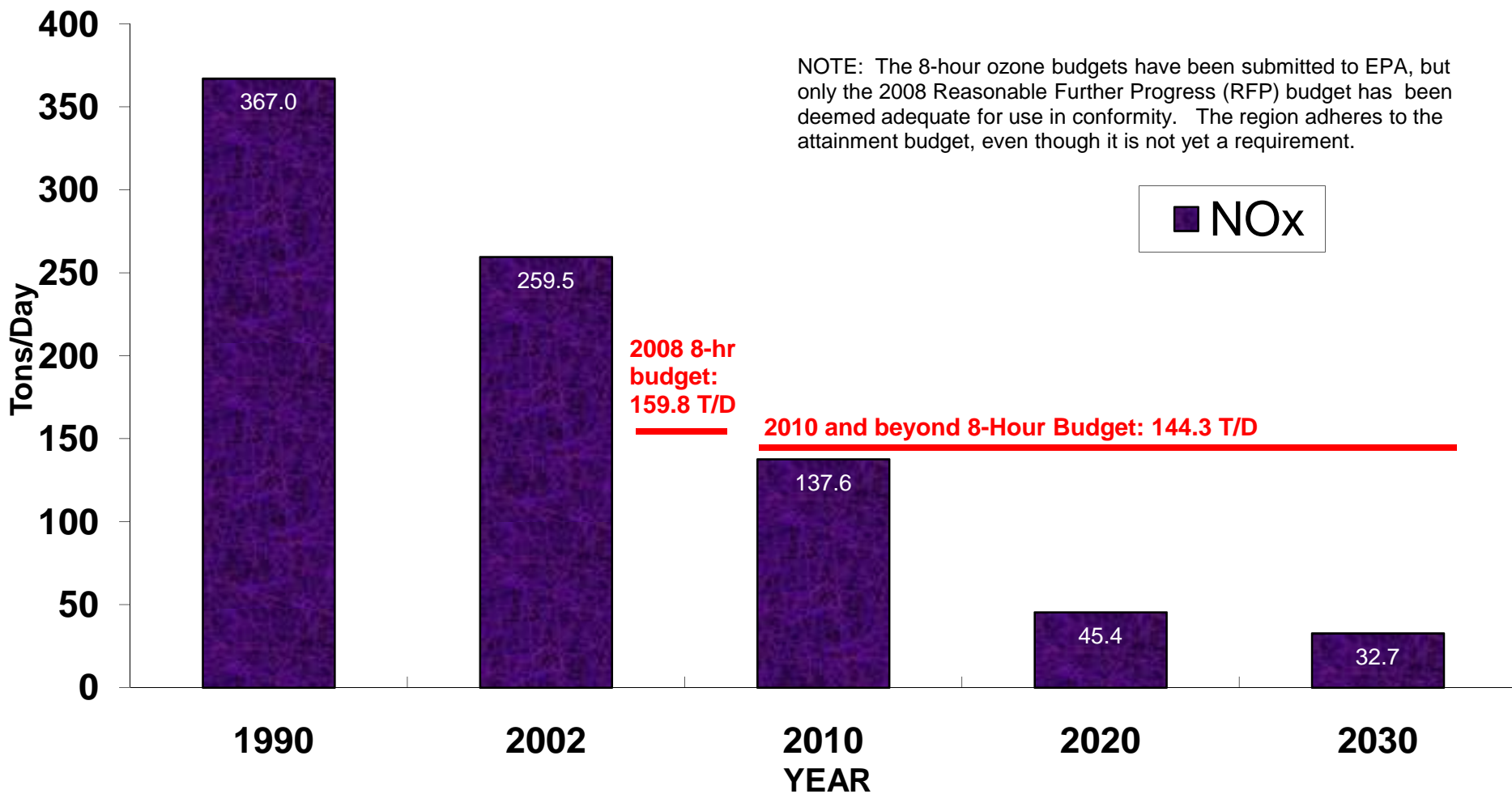
### for the 1-Hour Ozone Nonattainment Area

#### 2009 CLRP and FY 2010-2015 TIP AMENDMENT

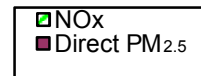


# EXHIBIT 10B

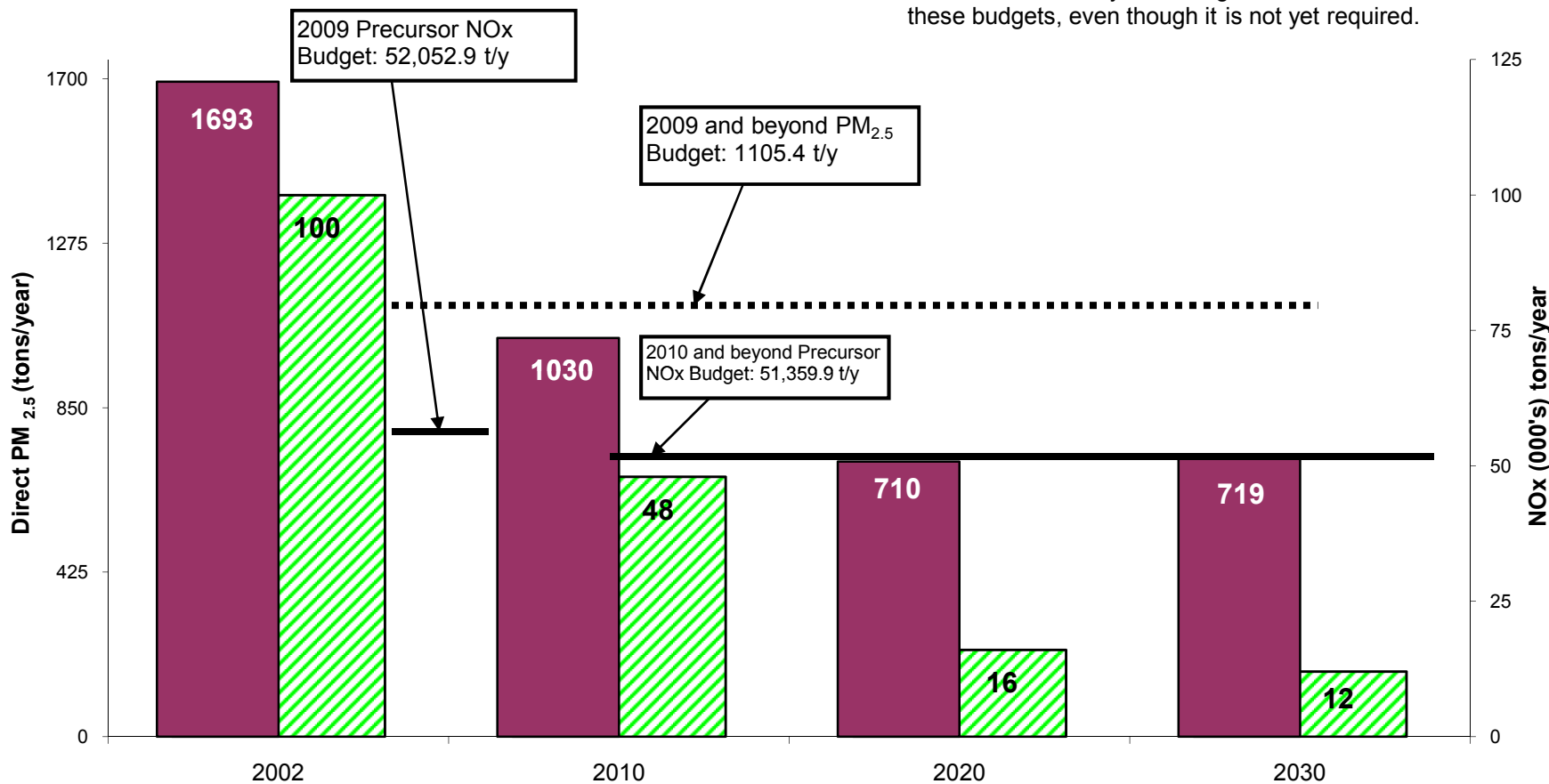
## Mobile Source NOx Emissions for the 8-Hour Ozone Nonattainment Area 2009 CLRP and FY 2010-2015 TIP AMENDMENT



### Exhibit 11 Mobile Source Emissions 2009 CLRP and FY 2010-2015 TIP Amendment PM<sub>2.5</sub> Direct and Precursor NOx



NOTE: The PM<sub>2.5</sub> budgets have been submitted to EPA, but have not yet been deemed adequate for use in conformity. The region adheres to these budgets, even though it is not yet required.



# **APPENDIX A**

## **MDOT's Amendment**



**Maryland Department of Transportation**  
The Secretary's Office

**Martin O'Malley**  
Governor

**Anthony G. Brown**  
Lt. Governor

**John D. Porcari**  
Secretary

**Beverley K. Swaim-Staley**  
Deputy Secretary

May 14, 2009

The Honorable Charles A. Jenkins, Chairman  
National Capital Region Transportation Planning Board  
Metropolitan Washington Council of Governments  
777 North Capitol Street, N.E. – Suite 300  
Washington DC 20002

Dear Chairman Jenkins:

As you are aware, the Maryland Department of Transportation (MDOT) has requested that the amendment process be initiated to include the Purple Line Transit Project in the FY 2009 Constrained Long Range Plan (CLRP). The Purple Line is a future 16-mile transitway between New Carrollton and Bethesda Metrorail Stations. Please refer to our letter dated April 23 describing the project and the amendment in detail.

This letter is to inform you that we are revising our amendment request, and to provide details on the financial analysis that makes this amendment possible. There has been one change to the amendment request as it relates to the Purple Line project. The project costs that were provided are shown in 2009 "constant dollars," and federal rules require that costs be considered in "year of expenditure dollars." This requirement means an inflation rate must be applied to the project cost, which will increase it to an amount higher than previously indicated. We applied an average inflation rate of 2.8%. For the purposes of the fiscal constraint analysis, the cost of the project is now \$1.68 billion. Please see the attached revised CLRP Form, which reflects this cost.

Even with these higher costs, we wish to continue our request to amend the Purple Line into the CLRP. As you know, federal regulations mandate that the CLRP be fiscally constrained and that the funding sources for projects must be "reasonably expected to be available." To accommodate these requirements, MDOT would like to include the additional revenue expected to be received from legislation enacted by the Maryland General Assembly in the Fall 2007 and revise the original amendment request to include the removal of two projects within 2009 CLRP. The two projects to be removed from the CLRP are the MD 28/MD 198 and the MD 3 Highway Projects. They will be downgraded to the Illustrative List as a "Study."

The current CLRP is operating under the "Analysis of Resources for the 2006 Financially Constrained Long-Range Transportation Plan for the Washington Region" (CLRP Financial Plan). Since approval of the 2006 CLRP Financial Plan, the State of Maryland legislatively enacted a revenue increase to the Transportation Trust Fund (TTF) during the 2007 Special

My telephone number is \_\_\_\_\_  
Toll Free Number 1-888-713-1414, TTY Users Call Via MD Relay  
7201 Corporate Center Drive, Hanover, Maryland 21076



The Honorable Charles A. Jenkins  
Page Two

Session. This legislative action increased the State's sales tax and vehicle titling tax. A portion of the sales tax and all of the titling tax is dedicated to the TTF to support the operating programs and capital projects of the Department.

Because of the methodology used in its development, the projections provided for the 2006 CLRP Financial Plan would not ordinarily be revised. MDOT develops its projections based on the underlying trends of its historical sources of funds. These trends include normal growth caused by increased volume, population and inflation, as well as, prior periodic revenue increases. By using this data to project future funding, the impact of future periodic increases is automatically built into the revenue projections. However, as we learned from a recent exercise done for the Baltimore Regional Transportation Board (BRTB), the revenue increase from the 2007 Special Session was larger than the trend analysis projected.

The BRTB requested an analysis on the impact the 2007 General Assembly Revenue Increase had on their CLRP forecast. Focusing on just the change in State dollars, the analysis showed that additional funding would be available sooner than anticipated. Starting in fiscal 2012, the additional funds available statewide would be split between system preservation and expansion, allotted between surface and non-surface transportation, and then allocated by region using the same factors as the original 2006 update. On February 24, 2009, the BRTB approved an amendment to their CLRP to include the 2007 Revenue Increase and add projects to their Plan.

This recently approved statewide analysis was used as the basis to determine the Washington Region's portion of the revenue increase. As detailed in the attachment, this analysis shows that nearly \$500 million in additional state funding can be available through 2030 from the Maryland Transportation Trust Fund. Consistent with the 2006 CLRP Financial Plan, MDOT assumes that 50 percent of the funding for major transit projects will be Federal New Starts Funding. Applying the same assumption to the Revenue Increase funding, MDOT has determined there is an additional \$1 billion of funding that can reasonably be expected to be available (\$500 million in state dollars and \$500 million in New Starts dollars) for the Purple Line project.

In the 2006 CLRP Financial Plan, on Page 5, Table 2, MDOT identified \$419 million for the Purple Line. MDOT also identified \$61 million as a placeholder for future New Starts projects. In combination, this means that the 2006 CLRP Financial Plan has already identified \$480 million dollars available for the project (\$240 million in state dollars, and \$240 million in New Starts dollars).

As mentioned above, MDOT is requesting that the MD 28/MD 198 construction project and the MD 3 construction project be removed from the CLRP and the associated funding be applied to the Purple Line project. The attached CLRP forms demonstrate that we are proposing to remove \$324 million from these the MD 28/MD 198 project, and \$212 million from the MD 3 project.

The Honorable Charles A. Jenkins  
Page Three

As previously stated, the cost of the Purple Line project is \$1.68 billion. New state funding provided by the Revenue Increase, combined with the project placeholders already in the 2006 CLRP Financial Plan, and the removal of the highway projects, will enable us to add the full cost of the Purple Line project into the CLRP. MDOT is confident this analysis demonstrates that the amended 2009 CLRP is fiscally constrained.

We would like to thank both Montgomery County and Prince George's County for their cooperation in support of the Purple Line project, as well as, supporting our decision to change the status of these two highway projects in the current CLRP. MDOT does anticipate that these projects will be able to be restored with the 2010 CLRP update next year and this action will be our first priority.

We appreciate your cooperation in this matter. If you have any questions or concerns, please do not hesitate to contact Ms. Lyn Erickson at 410-865-1279, toll-free at 888-713-1414 or via email at [lerickson@mdot.state.md.us](mailto:lerickson@mdot.state.md.us). Of course, please feel free to contact me directly.

Sincerely,



Donald A. Halligan, Director  
Office of Planning and Capital Programming

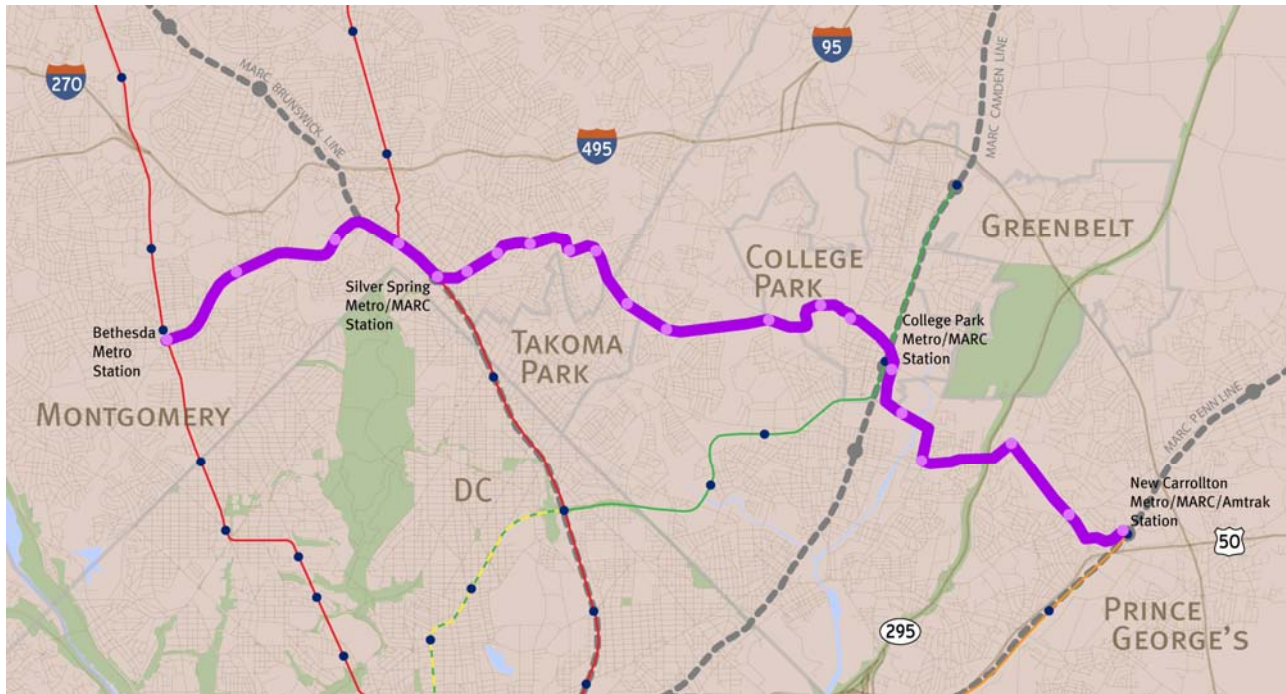
#### Attachments

cc: Ms. Lyn Erickson, Manager, Regional Planning, Office of Planning and Capital Programming, Maryland Department of Transportation  
Mr. Ronald Kirby, Director, Department of Transportation Planning, Metropolitan Washington Council of Governments  
Ms. Heather Murphy, Deputy Director, Office of Planning and Capital Programming, Maryland Department of Transportation  
Mr. Michael Nixon, MPO Manager, Regional Planning, Office of Planning and Capital Programming, Maryland Department of Transportation  
Ms. Diane Ratcliff, Director, Office of Planning, Maryland Transit Administration  
Mr. Greg Slater, Maryland, Director, Office of Planning and Preliminary Engineering, State Highway Administration

# Proposed for Amendment to the 2009 Update to the Constrained Long-Range Transportation Plan (CLRP)



## Purple Line from Bethesda to New Carrollton



Design, construct and operate a light rail system in Montgomery and Prince George's Counties between Bethesda and New Carrollton. The 16-mile long facility features 21 stations and will connect to Metro stations on the Red Line (Bethesda, Silver Spring), the Green Line (College Park) and Orange Line (New Carrollton), as well as MARC and Amtrak rail stations.

Length: 16 miles  
Complete: 2018  
Cost: \$1.685 billion  
Source: Federal and state funding

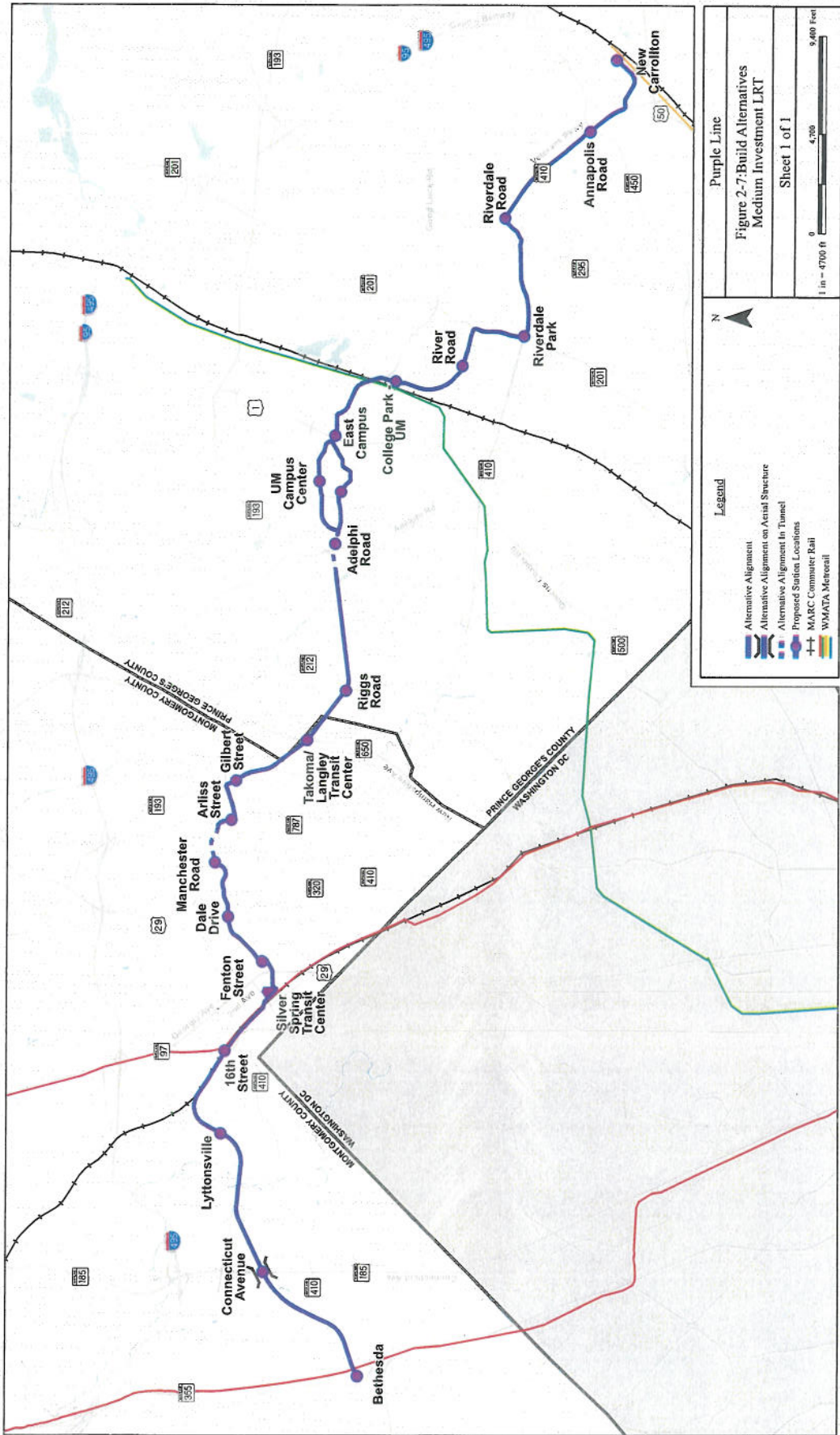


# Purple Line Connections

## Legend

- MARC Station
- Purple Line - Bethesda to New Carrollton
- Red Line - Glenmont to Shady Grove
- Orange Line - New Carrollton to Vienna/Fairfax-GMA
- Blue Line - Franconia-Springfield to Largo Town Center
- Green Line - Branch Avenue to Greenbelt
- Yellow Line - Huntington to Mt. Vernon Sq./7th St.-Convention Center





## CONSTRAINED LONG RANGE PLAN (CLRP)

### Proposed Project or Action Description Form

1. Location and Jurisdiction:

Facility:

From/At: **Bethesda**

To: **New Carrollton**

Jurisdiction: **Montgomery County, Prince George's County**

2. Submitting Agency: **MDOT/Maryland Transit Administration**

Last Modified On: **5/13/2009**

3. Project Type and Description:

**Transit**

Description of project or action:

**Preparation of Alternatives Analysis, Draft Environmental Impact Statement (DEIS) and Preliminary Engineering/Final Environmental Impact Assessment (FEIS) and New Starts Application. Construct the proposed Purple Line which will provide high-capacity transit along a 16-mile corridor that extends from Bethesda to the New Carrollton with connections to the Metrorail Red Line, Green Line and Orange Line as well as all three MARC lines, AMTRAK and regional and local bus services. The project includes approximately 21 stations with a forecasted daily ridership of 62,600. Of the daily ridership, approximately 19,200 riders will be new riders and translate into a net reduction of auto trips.**

**Bicycle/pedestrian accommodations included**

4. Project Phasing:

Project ID	In TIP	Improvement	Facility	From	To	#Lane		Completion Date
						From	To	
1042	Yes	Construct						2017

5. Purpose / Contribution to regional goals:

6. Funding and Schedule Information:

Cost (In Thousands): **\$1,685,000.00**

Date of Completion or Implementation: **2017**

Source: **Federal, State**

Cost and Schedule Remarks: **The AA/DEIS is anticipated to be submitted to FTA by summer 2008; public hearings in fall, 2008. The Purple Line AA/DEIS was completed and submitted to FTA in September 2008. A 90-day public review period was completed on January 14, 2009. Four public hearings were held in November 2008 that yielded over 3000 comments. The County Councils and County Executives of both Montgomery and Prince George's Counties unanimously Maryland-National Capital Park and Planning Commissions in both counties endorsed the Medium Investment light rail alternative. Construction to begin to 2014 with services starting in 2017.**

7. CMS Documentation:

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

If yes, does this project require a CMS Documentation form under the given criteria?:

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

[Return to Projects](#)

## CONSTRAINED LONG RANGE PLAN (CLRP)

### Proposed Project or Action Description Form

1. Location and Jurisdiction: 2. Submitting Agency: **MDOT/State Highway Administration**  
Last Modified On: **5/12/2009**  
 Facility: **MD 28/198 Norbeck Road/Spencerville Road**  
 From/At: **MD 97**  
 To: **I 95**  
 Jurisdiction: **Montgomery County, Prince George's County**

3. Project Type and Description:

**Secondary**

Description of project or action:

**Study to develop alternatives for capacity improvements in the MD 28 and MD 198 corridors in Montgomery and Prince George's Counties. Wide curb lanes will be included to accommodate bicycles. Sidewalks to be included where appropriate.**

**Bicycle/pedestrian accommodations included**

4. Project Phasing:

Project ID	In TIP	Improvement	Facility	From	To	#Lane		Completion Date
						From	To	
	Yes	<del>Widen</del> Study	MD 28/198 Norbeck Road/Spencerville Road	MD 97	I 95	2/4	4/6	2020

5. Purpose / Contribution to regional goals:

6. Funding and Schedule Information:

Cost (In Thousands): ~~\$324,481.00~~ Date of Completion or Implementation: **2020**  
 Source: **Federal, State**  
 Cost and Schedule Remarks:

7. CMS Documentation:

Is this a highway capacity-increasing project on a limited access or other principal arterial highway?: **No**

If yes, does this project require a CMS Documentation form under the given criteria?:

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

[Return to Projects](#)



# CONSTRAINED LONG RANGE PLAN (CLRP)

## Proposed Project or Action Description Form

1. Location and Jurisdiction:

Facility: **MD 3 Robert Crain Highway**  
 From/At: **US 50**  
 To: **Anne Arundel County Line**  
 Jurisdiction: **Prince George's County**

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

Last Modified On: **12/3/2008**

3. Project Type and Description:

**Primary**

Description of project or action:

**Study to upgrade MD 3 from US 50 to MD 32 to address safety and capacity concerns. Wide curb lanes and shoulders will accomodate bicycles.**

**Bicycle/pedestrian accommodations included**

4. Project Phasing:

Project ID	In TIP	Improvement	Facility	From	To	#Lane		Completion Date
						From	To	
<b>AT1981</b>	<b>Yes</b>	<b>Widen Study</b>	<b>MD 3 Robert Crain Highway</b>	<b>US 50</b>	<b>Anne Arundel County Line</b>	<b>4</b>	<b>6</b>	<b>2020</b>

5. Purpose / Contribution to regional goals:

6. Funding and Schedule Information:

Cost (In Thousands): **~~\$212,659.00~~**

Date of Completion or Implementation: **2020**

Source: **Federal, State**

Cost and Schedule Remarks: **Project planning is expected to be complete by Summer 2009. Cost includes construction in Prince George's County only.**

7. CMS Documentation:

Is this a highway capacity-increasing project on a limited access or other principal arterial highway?: **Yes**

If yes, does this project require a CMS Documentation form under the given criteria?: **No**

If not, please identify the criteria that exempt the project here: **The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange**

[Return to Projects](#)

# **APPENDIX B**

## **DDOT's Amendment**

GOVERNMENT OF THE DISTRICT OF COLUMBIA  
DISTRICT DEPARTMENT OF TRANSPORTATION



Transportation Policy and Planning Administration

April 23, 2009

Mr. Charles Jenkins  
Chair  
Transportation Planning Board  
Metropolitan Washington Council of Governments  
777 North Capitol Street, NE – Suite 300  
Washington, DC 20002

Dear Mr. Jenkins and members of the TPB,

The District Department of Transportation (DDOT) requests an amendment to the FY 2009 Constrained Long Range Plan (CLRP) and the FY 2010 – 2015 Transportation Improvement Program (TIP) to include roadway changes related to an air rights development project above I-395 between Massachusetts Avenue, NW on the north and E Street, NW on the south. The east-west boundaries of the project are 3<sup>rd</sup> Street, NW on the west and 2<sup>nd</sup> Street, NW on the east. (See attached site photo.)

At the present time, this segment of I-395 (referred to as the “Center Leg Freeway”) sits in an open trench between the streets mentioned above. This trench currently interrupts both G Street, and F Street, NW. Thus there are about three city blocks between E Street and Massachusetts Avenue where there is no east-west surface transportation for vehicles, cyclists or pedestrians.

A private developer and the District of Columbia are proceeding with a proposal to develop the air rights above this trench. As part of this proposal, F Street will be reconnected for both vehicular and pedestrian traffic and G Street will be reconnected for pedestrians and cyclists. The developer has named the project “Return to L’Enfant” because it will partially recreate the street grid that was disrupted by the freeway’s construction. If the project can pass the various legal and economic requirements and procedures for a project of this type, then the new development (commercial, retail and some residential) combined with the reconnected street grid will add vitality to this area while facilitating greater walking, cycling and transit use. Both the location of this development and its green design and construction will make it a premier example of “smart growth.”

DDOT CLRP & TIP Amendment Request  
April 23, 2009  
Page Two

DDOT requests that the TPB follow a proposed schedule (attached) which was developed in cooperation with TPB staff for the purpose of introducing new projects into the FY 2009 CLRP and the FY 2010 – 2015 TIP. The proposed CLRP and TIP amendment sheets are attached for your review, with the understanding that the TPB would not take formal action on this proposal until June 17<sup>th</sup> when it would receive the results of the public comment period and decide whether to approve a scope of work for conformity testing associated with this proposed CLRP and TIP change.

DDOT appreciates your cooperation in this matter. If you have any questions regarding these proposed amendments, please contact me by e-mail at [rick.rybeck@dc.gov](mailto:rick.rybeck@dc.gov) or by phone at (202) 671-2325.

Sincerely,



Rick Rybeck  
Deputy Associate Director  
Transportation Policy & Planning Administration.

Attachments

cc Gabe Klein, DDOT Director  
Karina Ricks, Associate Director, TPPA, DDOT  
Kathleen Penney, Deputy Director, DDOT  
Matthew Brown, Deputy Director, DDOT  
Ron Kirby, Transportation Director, MWCOG

GOVERNMENT OF THE DISTRICT OF COLUMBIA  
DISTRICT DEPARTMENT OF TRANSPORTATION



Office of the Director

June 10, 2009

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

**Re Item # 10:** Approval of Scope of Work and Budget for An Air Quality Conformity Assessment for An Amendment to the 2009 CLRP and FY 2010 – 2015 TIP to Include Projects Described in Items 8 and 9.

Dear Mr. Kirby,

As the TPB prepares to move ahead with air quality conformity determinations for the Purple Line and for the transportation improvements associated with the I-395 Air Rights Development, it comes to the attention of the District Department of Transportation (DDOT) that the network coding for the K Street Transitway, included in conforming versions of the 2003 CLRP and the FY 2004 – FY2009 TIP, is no longer a correct reflection of the latest design work associated with the Transitway.

At the present time, the network coding shows three general purpose travel lanes along K Street, NW between 7<sup>th</sup> Street and 23<sup>rd</sup> Street, NW. This is incorrect for areas abutting Farrugut and Franklin Squares where only two general purpose travel lanes exist. Furthermore, recent studies show that one transit lane in each direction does not provide sufficient level of transit service for the number of buses predicted to be present in this corridor. Therefore, a third transit lane is required to allow through buses to by-pass buses that are stopped. (Transit stops will be staggered so that there is only one stop in one direction on any given block.) As a result, only two general purpose travel lanes in each direction will be the norm along K Street, NW between 7<sup>th</sup> Street and 23<sup>rd</sup> Street, NW.

Therefore, as a technical change to the scope of work, DDOT requests that the network coding more accurately reflect the current plans for the Transitway that have been discussed extensively with the business improvement districts in that area.

TPB Item # 10 June 17, 2009 - Change Request

Page Two

However, the District wishes to allow the public to comment on this revision to the network and is willing to respond to any comments that may be received between the release of this information at the CAC on June 11<sup>th</sup> and July 11<sup>th</sup>. Should any of these comments require TPB response, DDOT will assist TPB in preparing that response for the July TPB meeting. The TPB hiatus during August would allow any changes to be incorporated without slipping the schedule for this off-cycle conformity assessment.

Thank you for considering this request to modify the scope of work associated with Item 10 for the June 17<sup>th</sup> TPB Agenda, the "Approval of Scope of Work and Budget for An Air Quality Conformity Assessment for An Amendment to the 2009 CLRP and FY 2010 – 2015 TIP to Include Projects Described in Items 8 and 9."

Please circulate this request to the TPB members and their staff so that they may be aware of this request prior to the TPB meeting on June 17<sup>th</sup>. Please also circulate this request at the June 11<sup>th</sup> TPB Citizen Advisory Committee meeting so that the public comment period can begin at that time.

If you have any questions or concerns, please let me know. I can be reached by e-mail at [rick.rybeck@dc.gov](mailto:rick.rybeck@dc.gov) or by phone at (202) 671-2325.

Sincerely,

A handwritten signature in black ink that reads "Rick Rybeck". The signature is written in a cursive, flowing style.

Rick Rybeck  
Deputy Associate Director

May 13, 2009

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

**PROPOSED SCHEDULE**

May 1, 2009	TPB Technical Committee briefed on proposed amendments
May 14, 2009	Project descriptions and conformity analysis scope of work released for public comment
*May 20, 2009	TPB briefed on proposed amendments and conformity analysis scope of work
June 13, 2009	Public comment period ends
*June 17, 2009	TPB approves proposed project inputs and conformity analysis scope of work
* <i>July 15, 2009</i>	<i>TPB scheduled to adopt 2009 CLRP and FY2010-2015 TIP and conformity analysis</i>
September 10, 2009	Draft conformity results for amendment released for public comment
*September 16, 2009	TPB briefed on draft conformity results
October 10, 2009	Public comment period ends
*October 21, 2009	TPB reviews public comments and responses to comments, and adopts conformity analysis, 2009 CLRP, and FY2010-2015 TIP amendments
* TPB meeting	

# Proposed for Amendment to the 2009 Update to the Constrained Long-Range Transportation Plan (CLRP)

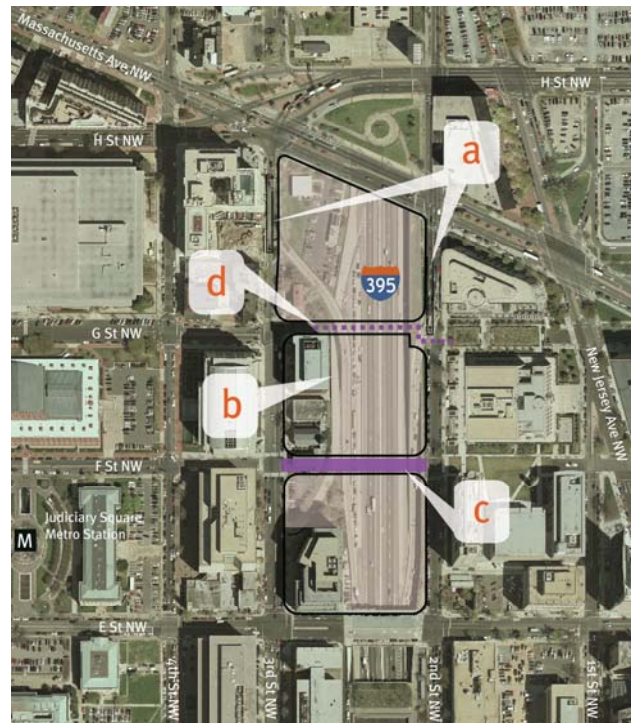
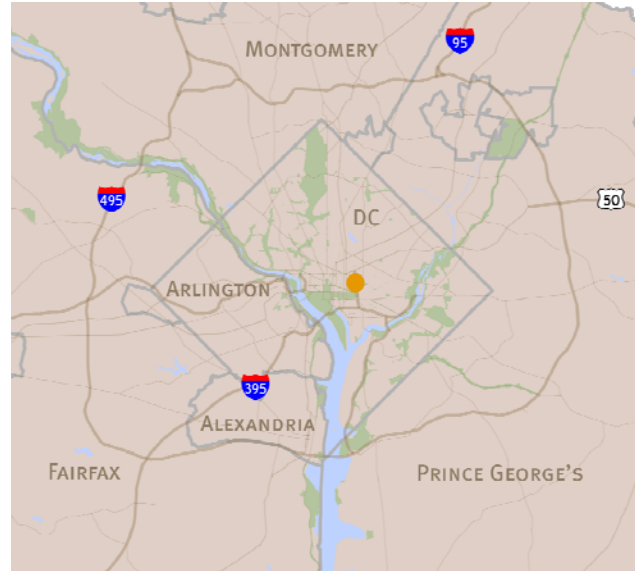


## Return to L'Enfant: Modifications to I-395 between E St. and Massachusetts Ave. NW

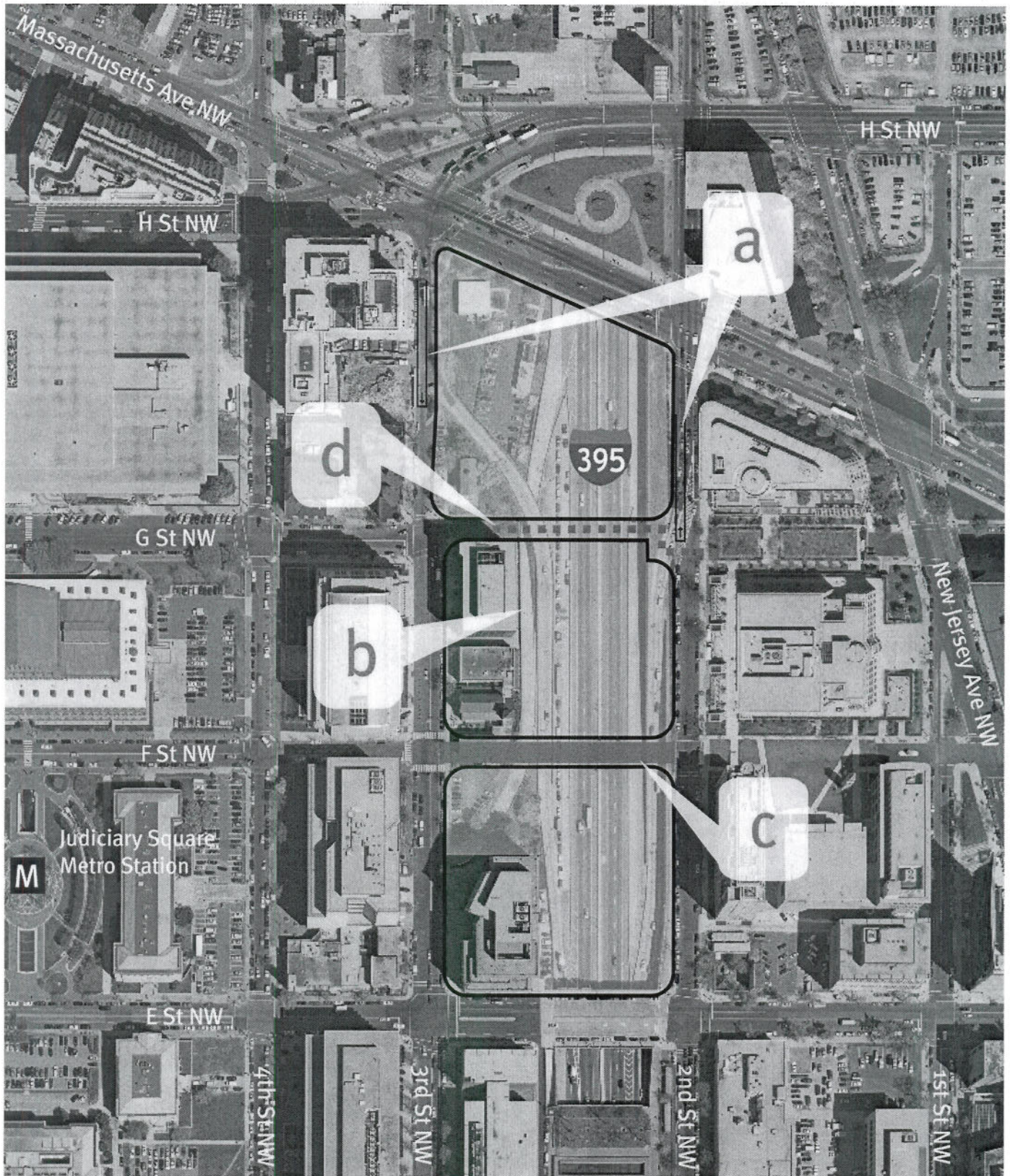
This project will make modifications to three on/off ramps from and to I-395, including the closure of a seldom-used off-ramp to the 400 block of 3<sup>rd</sup> St. NW. Once the ramp modifications are complete, the portion of I-395 between E St. and Massachusetts Ave. NW will be decked over and re-developed with a 2.3 million square foot mix of office, residential, retail, and public space.

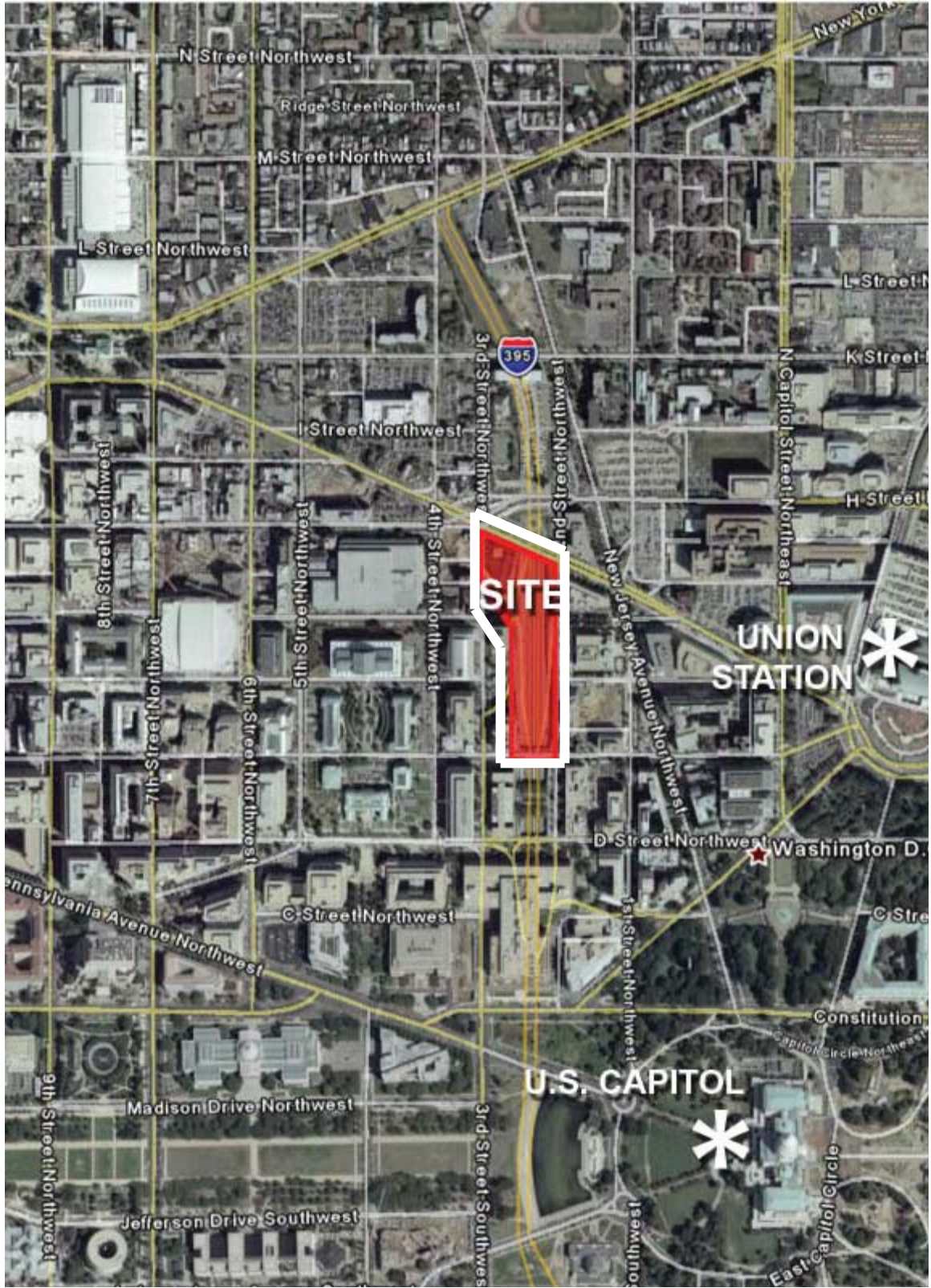
- a. Reconfigure the southbound on-ramp from 3<sup>rd</sup> St. and northbound off-ramp to 2<sup>nd</sup> St.
- b. Close southbound off-ramp from I-395 to the 400 block of 3<sup>rd</sup> St.
- c. Reconnect F St. between 2<sup>nd</sup> and 3<sup>rd</sup> Streets for vehicular, bicycle, and pedestrian traffic.
- d. Reconnect G St. between 2<sup>nd</sup> and 3<sup>rd</sup> Streets for bicycle and pedestrian traffic

Complete: 2014  
Cost: \$27 million  
Source: Private funding









# TRANSPORTATION IMPROVEMENT PROGRAM FOR FY 2010-2015 PROJECT DESCRIPTION FORM



**BASIC PROJECT INFORMATION**

1. Submitting Agency: **District Department of Transportation (DDOT)** Agency Project ID: \_\_\_\_\_

2. Project Name (from CLRP Project): **Return to L'Enfant**

3. Phase Name:

	Prefix	Route	Name	Modifier
4. Facility:	<b>I</b>	<b>395</b>	<b>Center Leg Freeway</b>	
5. From ( _ at):			<b>Massachusetts Avenue, NW</b>	
6. To:			<b>E St., NW (Between 2<sup>nd</sup> and 3<sup>rd</sup> Streets, NW)</b>	

7. Agency Phase ID:

8. Description:

**Return to L'Enfant** is a planned unit development (PUD) encompassing the I-395 air rights between E Street and Massachusetts Avenue NW, and available terra firma pieces between 3rd Street NW and I-395. The projected development will cover the sunken I-395 highway with three city blocks and two new Rights of Way (ROWs) at G and F Streets NW, by means of an at-grade platform above the highway. The city blocks will have a total of 2.3 million square feet of office, residential, retail, and public space, with parking garage and service corridor below grade. By creating new building walls along the edges of G and F Streets, the development will demarcate and establish the L'Enfant plan vistas and reconnect the city grid by adding pedestrian and vehicular corridors.

Key transportation components of the project include the following items (*noted by letter when a question is applicable to individual aspects; otherwise, applicable to the entire project noted with "X"*):

- A.** Closure of the I-395 Southbound Exit Ramp to the 400 block of 3rd Street, NW
- B.** Reconnection of F Street, NW between 2nd and 3rd Streets, for vehicular, pedestrian and bicycle traffic
- C.** Reconnection of G Street, NW between 2nd and 3rd Streets, for bicycle and pedestrian traffic
- D.** Reconfiguration of the I-395 Southbound Entrance Ramp from the 600 block of 3<sup>rd</sup> Street, NW
- E.** Reconfiguration of the I-395 Northbound Exit Ramp to the 500 block of 2nd Street, NW

Improvement	Facility Type		Number of Lanes		Environmental Review	Status
	From	To	From	To		
9. Conformity Information:						

10. Bicycle or Pedestrian Accommodations: **("D", and "E")** Not Included; **("B" only)** Included; **("C" only)** Primarily a Bike/Ped Project; **("A" only)** N/A

11. Total Miles: **<1**

12. Project Manager: **John Makle**

13. E-Mail: **[john.makle@dc.gov](mailto:john.makle@dc.gov)**

14. Project Information URL:

15. Projected Completion Year: **estimated: "A"-2010; "B"-2014; "C"-2014; "D"-2011; "E"-2013**

16. Actual Completion Year:

17. Project Status:

- New Project**
- In previous TIP, proceeding as scheduled
- In previous TIP, delayed or reprogrammed

# TIP PROJECT DESCRIPTION FORM

Project is ongoing, year refers to implementation

Project is being withdrawn from TIP

## 18. Environmental Review

Type:  PCE;  CE;  DEA;  EA;  FONSI;  DEIS;  FEIS;  F4;  N/A

Status:  Proposed for preparation;  Under preparation;  Prepared for review;  Under review;  Approved

## 19. Capital Costs

TRANSP. COMPONENT	FISCAL YEAR	AMOUNT	PHASE	SOURCE	FED	STA	LOC
"A-E"	'09-'10	\$2,000,000	Design	Private			
"A"	2011	\$132,000	Constr	Private			
"B"	'11-'14	\$8,570,000	Constr	Private			
"C"	'11-'15	\$4,040,000	Constr	Private			
"D"	2011	\$5,940,000	Constr	Private			
"E"	'11-'14	\$5,980,000	Constr	Private			

(use the Tab button in the bottom right cell to create more lines in the table)

# FINANCIALLY CONSTRAINED LONG-RANGE TRANSPORTATION PLAN FOR 2030 PROJECT DESCRIPTION FORM



## **BASIC PROJECT INFORMATION**

1. Submitting Agency: **District Department of Transportation (DDOT)**
2. Secondary Agency:
3. Agency Project ID: \_\_\_\_\_
4. Project Type:  Interstate  Primary  Secondary  Urban  Bridge  Bike/Ped  Transit  CMAQ  
 ITS  Enhancement  Other  Federal Lands Highways Program  
 Human Service Transportation Coordination  TERMS
5. Category:  System Expansion;  System Maintenance;  Operational Program;  Study;  Other
6. Project Name: **Return to L'Enfant**

	Prefix	Route	Name	Modifier
7. Facility:	<b>I</b>	<b>395</b>	<b>Center Leg Freeway</b>	
8. From ( _ at):			<b>Massachusetts Avenue, NW</b>	
9. To:			<b>E St., NW (Between 2<sup>nd</sup> and 3<sup>rd</sup> Streets, NW)</b>	

### 10. Description:

**Return to L'Enfant** is a planned unit development (PUD) encompassing the I-395 air rights between E Street and Massachusetts Avenue NW, and available terra firma pieces between 3rd Street NW and I-395. The projected development will cover the sunken I-395 highway with three city blocks and two new Rights of Way (ROWs) at G and F Streets NW, by means of an at-grade platform above the highway. The city blocks will have a total of 2.3 million square feet of office, residential, retail, and public space, with parking garage and service corridor below grade. By creating new building walls along the edges of G and F Streets, the development will demarcate and establish the L'Enfant plan vistas and reconnect the city grid by adding pedestrian and vehicular corridors.

Key transportation components of the project include the following items (*noted by letter when a question is applicable to individual aspects; otherwise, applicable to the entire project noted with "X"*):

- A.** Closure of the I-395 Southbound Exit Ramp to the 400 block of 3rd Street, NW
- B.** Reconnection of F Street, NW between 2nd and 3rd Streets, for vehicular, pedestrian and bicycle traffic
- C.** Reconnection of G Street, NW between 2nd and 3rd Streets, for bicycle and pedestrian traffic
- D.** Reconfiguration of the I-395 Southbound Entrance Ramp from the 600 block of 3<sup>rd</sup> Street, NW
- E.** Reconfiguration of the I-395 Northbound Exit Ramp to the 500 block of 2nd Street, NW

11. Projected Completion Date: estimated: "A"-2010; "B"-2014; "C"-2014; "D"-2011; "E"-2013
12. Project Manager: **John Makle**
13. Project Manager E-Mail: [john.makle@dc.gov](mailto:john.makle@dc.gov)
14. Project Information URL:
15. Total Miles: **<1**
16. Schematic:
17. Documentation:

## CLRP PROJECT DESCRIPTION FORM

18. Bicycle or Pedestrian Accommodations: ("D", and "E") Not Included; ("B" only) Included; ("C" only) Primarily a Bike/Ped Project; ("A" only) N/A
19. Jurisdictions: District of Columbia, Ward 6
20. Total cost (in Thousands): preliminary estimate - \$27,000 ("A"-"E" design and construction)
21. Remaining cost (in Thousands):
22. Funding Sources:  Federal;  State;  Local;  Private;  Bonds;  Other

### SAFETEA-LU PLANNING FACTORS

23. Please identify any and all planning factors that are addressed by this project:
- Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
  - Increase the **safety** of the transportation system for all motorized and non-motorized users.
    - Is this project being proposed specifically to address a safety issue?  Yes;  No
    - If yes, briefly describe (in quantifiable terms, where possible) the nature of the safety problem:
  - "B" and "C" only Increase the ability of the transportation system to support **homeland security** and to safeguard the personal security of all motorized and non-motorized users.
  - "B" and "C" only Increase **accessibility and mobility** of people and freight.
  - Protect and enhance the **environment**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
  - "B" and "C" only Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.
  - "B", "C" and "D" Promote efficient system **management and operation**.
  - "B", "C", "D" and "E" Emphasize the **preservation** of the existing transportation system.

### ENVIRONMENTAL MITIGATION

24. Have any potential mitigation activities been identified for this project?  Yes;  No
- If yes, what types of mitigation activities have been identified?  
 Air Quality;  Floodplains;  Socioeconomics;  Geology, Soils and Groundwater; Vibrations;  
 Energy;  Noise;  Surface Water;  Hazardous and Contaminated Materials;  Wetlands

### CONGESTION MANAGEMENT INFORMATION

25. Do traffic congestion conditions necessitate the proposed project?  Yes;  No
- If so, is the congestion recurring or non-recurring?  Recurring;  Non-recurring
  - If the congestion is on another facility, please identify it:
  - What is the measured or estimated Level of Service on this facility? \_\_\_\_ ;  Measured;  Estimated
26. Is this a capacity-increasing project on a limited access highway or other principal arterial?  Yes;  No
- If yes, does this project require a Congestion Management Documentation form under the given criteria (see page 34 of the *Call for Projects* document)?  Yes; [Click here to access a Congestion Management Documentation Form](#).
  - If not, please identify the criteria that exempt the project here:  
 The number of lane-miles added to the highway system by the project totals less than 1 lane-mile  
"B", "C" and "D" The project is an intersection reconstruction or other traffic engineering improvement, including replacement of an at-grade intersection with an interchange  
 The project will not allow motor vehicles, such as a bicycle or pedestrian facility  
 The project consists of preliminary studies or engineering only, and is not funded for construction

## CLRP PROJECT DESCRIPTION FORM

- The project received NEPA approval on or before April 6, 1992
- The project was already under construction on or before September 30, 1997, or construction funds were already committed in the FY98-03 TIP.
- The construction costs for the project are less than \$5 million.
- The project will not use any Federal funds in any phase of development or construction.

### **INTELLIGENT TRANSPORTATION SYSTEMS**

27. Is this an Intelligent Transportation Systems (ITS) project as defined in federal law and regulation, and therefore subject to Federal Rule 940 Requirements?  Yes;  No
- a. If yes, what is the status of the systems engineering analysis compliant with Federal Rule 940 for the project?  Not Started;  Ongoing, not complete;  Complete
- b. Under which Architecture:
- DC, Maryland or Virginia State Architecture
  - WMATA Architecture
  - COG/TPB Regional ITS Architecture
  - Other, please specify:
28. Completed Date:
29.  Project is being withdrawn from the CLRP.
30. Withdrawn Date:
31. Record Creator:
32. Created On:
33. Last Updated by:
34. Last Updated On:
35. Comments

# **APPENDIX C**

## **Scope of Work**



June 17, 2009

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

**SCOPE OF WORK**

**I. INTRODUCTION**

The Maryland Department of Transportation (MDOT) and the District Department of Transportation (DDOT) each requests an amendment to the 2009 Constrained Long Range Plan (CLRP). MDOT's is for the construction of the Purple Line from New Carrollton to Bethesda. DDOT's is for a proposed development in the air rights over I-395 between E St. and Massachusetts Ave. NW, which includes some transportation components. The 2009 CLRP and FY2010-2015 TIP are scheduled to be adopted by the Transportation Planning Board (TPB) in July, 2009. Both amendments affect the air quality conformity analysis, and will therefore require a new demonstration of air quality conformity before they can be adopted as plan and program elements by the Transportation Planning Board (TPB).

This scope of work reflects the tasks and schedule designed for the air quality conformity assessment leading to adoption of the amended plan and program. This work effort addresses requirements associated with attainment of the ozone standards (volatile organic compounds (VOC) and nitrogen oxides (NOx) as ozone precursor pollutants), and fine particles (PM<sub>2.5</sub>) standards (direct particles and precursor NOx), as well as maintenance of the wintertime carbon monoxide (CO) standard.

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

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

**II. APPROACH**

The analytical approach is the same as that currently being applied in the air quality conformity assessment of the 2009 CLRP and FY2010-2015 TIP, scheduled for approval by the TPB in July 2009, which is outlined in the summary table below.

**TABLE 1 – Summary of Technical Approach**

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

### III. CONSULTATION

A 30 day public comment / interagency consultation period followed by response to comments will be provided for the following milestones:

- Project review
- Air quality conformity scope of work
- Conformity report

#### IV. WORK TASKS

1. Prepare forecast year highway and transit networks
  - 2010, 2020, 2030
2. Review and update land activity files
  - Round 7.2A
3. Prepare 2010 travel and emissions estimates
  - Execute travel demand modeling
  - Calculate emissions (daily for ozone season VOC and NO<sub>x</sub> for ozone standard requirements; daily for winter CO; yearly for PM<sub>2.5</sub> direct particles and precursor NO<sub>x</sub>)
4. Prepare 2020 travel and emissions estimates
  - Execute tasks as in 2010 analysis, execute toll processes
5. Prepare 2030 travel and emissions estimates
  - Execute tasks as in 2020 analysis
  - Apply “transit constraint” using 2020 levels
6. Analyze results of above technical analysis
  - Reductions from 1990 (ozone season VOC and NO<sub>x</sub> and winter CO) and 2002 base (ozone season VOC and NO<sub>x</sub>, winter CO, and PM<sub>2.5</sub>)
  - 1-hour and 8-hour ozone season VOC and NO<sub>x</sub> budgets, direct PM<sub>2.5</sub> and precursor NO<sub>x</sub> budgets, and winter CO emissions budgets
7. Assess conformity and document results in a report
  - Document methods
  - Draft conformity report
  - Forward to technical committees, policy committees
  - Make available for public comment and interagency consultation
  - Receive comments
  - Address comments and present to TPB for action
  - Finalize report and forward to FHWA and FTA

June 17, 2009

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

**SCHEDULE**

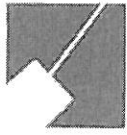
May 1, 2009	TPB Technical Committee briefed on proposed amendments
May 14, 2009	Project descriptions and conformity analysis scope of work released for public comment
*May 20, 2009	TPB briefed on proposed amendments and conformity analysis scope of work
June 13, 2009	Public comment period ends
*June 17, 2009	TPB approves proposed project inputs and conformity analysis scope of work
* <i>July 15, 2009</i>	<i>TPB scheduled to adopt 2009 CLRP and FY2010-2015 TIP and conformity analysis</i>
September 10, 2009	Draft conformity results for amendment released for public comment
*September 16, 2009	TPB briefed on draft conformity results
October 10, 2009	Public comment period ends
*October 21, 2009	TPB reviews public comments and responses to comments, and adopts conformity analysis, 2009 CLRP, and FY2010-2015 TIP amendments
* TPB meeting	

## STAFFING / BUDGET

	<u>Person Days</u>	
Director	5	
Senior Engineer	60	
Engineer II	14	
Total Salary		
	Direct	\$ 26,400
	M & A	\$ 6,600
	Leave Additive	\$ 6,270
Fringe		\$ 7,860
Indirect		\$ 16,970
<b>Total Project Cost</b>		<b>\$ 64,100</b>

# **APPENDIX D**

## **Round 7.2A Cooperative Forecast Correspondence**



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

June 17, 2009

Paul DesJardin, Director  
Department of Community Planning and Services  
Metropolitan Washington Council of Governments  
777 North Capitol Street, NE Suite 300  
Washington, D. C. 20002

Dear Mr. DesJardin:

The Montgomery County Planning Department has evaluated the Round 7.2 Cooperative Forecasts and submits the following revisions as part of Round 7.2a. These revisions are being submitted as the Transportation Planning Board considers the inclusion of the Purple Line from Bethesda to New Carrollton in the Region's Constrained Long-Range Transportation Plan.

The extension of the Purple Line from the Silver Spring CBD east to New Carrollton will put more of the Region's households within a reasonable commuting time to existing or potential work locations in Montgomery County. The Planning Department encourages mixed-use commercial and housing development at or near transit stations. For Round 7.2a, we find that the timing of planned development will be accelerated at the following transit stations: Chevy Chase Lakes, Fenton Village, Long Branch, and Takoma/Langley. We have consulted with our colleagues in Prince George's County and believe our projections to be consistent with the overall objectives and expectations of both Counties with respect to the Purple Line.

Round 7.2a shows an increase of 3,000 jobs between 2020 and 2030. The job growth beyond 2030 remains the same as the job growth in Round 7.2; therefore the 2040 employment is 3,000 higher than Round 7.2.

Round 7.2a shows an increase of 400 households between 2020 and 2030. The household growth between 2035 and 2040 is reduced by 400 households compared to Round 7.2. The number of households in 2040 is the same in both forecasts.

Round 7.2a population increases by 1,000 between 2020 and 2030. The population growth between 2035 and 2040 is reduced by 1,000 compared to Round 7.2. The population in 2040 is the same in both forecasts.

The Purple Line is scheduled to be operational in 2017. Round 7.2a forecasts growth associated with the Purple Line occurring between 2020 and 2030 as we feel it will take a few years after the Purple Line is operational for growth to occur in the areas examined as part of our analysis.

A summary of our updated forecasts is presented in the attached table. Please do not hesitate to contact Wayne Koempel of our Research Division at 301-650-5618 should you have any questions related to this submittal.

Sincerely,

A handwritten signature in cursive script that reads "Rollin Stanley".

Rollin Stanley  
Planning Director



**Montgomery County - Round 7.2a**

Year	Population	Households	Employment
2005	929,100	347,000	500,000
2010	966,000	362,000	510,000
2015	1,025,000	386,000	547,000
2020	1,075,000	408,000	590,000
2025	1,113,500	425,200	631,500
2030	1,142,000	440,400	673,000
2035	1,161,000	451,400	703,000
2040	1,174,000	460,000	723,000



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Prince George's County Planning Department  
Office of the Planning Director

14741 Governor Oden Bowie Drive  
Upper Marlboro, Maryland 20772  
TTY: (301) 952-4366  
www.mncppc.org/pgco  
301-952-3595

June 17, 2009

Mr. Paul DesJardin, Chief of Housing and Planning  
Department of Human Services, Planning, and Public Safety  
Metropolitan Washington Council of Governments  
777 North Capitol Street, N.E., Suite 3000  
Washington, D.C. 20002-4239

Dear Mr. DesJardin:

This letter transmits Prince George's County's Round 7.2A Cooperative Forecast. The Round 7.2A for Prince George's County incorporates changes to the prior Round 7.2 forecast and reflects the proposed amendment to include the Purple Line in the 2009 Constrained Long Range Plan. This round contains only minor changes to the prior round, which was submitted last year, because the previous forecast for Prince George's County largely accounted for the Purple Line. The Planning Department used the opportunity of Round 7.2A to make adjustments to Round 7.2 because the proposed amendment to the 2009 CLRP increases the likelihood of the Purple Line.

**Round 7.2A Cooperative Forecast for Prince George's County**

	2005	2010	2015	2020	2025	2030	2035	2040
<b>Dwelling Units</b>	323,026	335,423	349,173	363,159	375,612	386,892	394,782	399,426
<b>Households</b>	306,014	317,881	331,243	344,789	356,841	367,834	375,627	380,375
<b>Population</b>	849,333	872,014	899,192	924,788	945,710	966,852	985,064	995,372
<b>Employment</b>	347,885	362,886	379,393	399,211	424,429	454,932	488,946	524,292

Questions regarding this information should be directed to either Ms. Jacqueline Philson or Mr. Joseph Valenza of our Research Section at 301-952-3065.

Sincerely,



Fern Piret  
Planning Director

c: John Funk, Chief, Countywide Planning Division  
Jacqueline Philson, Planning Supervisor, Research Section  
Joseph Valenza, Master Planner, Research Section