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

### RESOLUTION TO AMEND THE FY 2007 UNIFIED PLANNING WORK PROGRAM TO INCLUDE REVISED WORK STATEMENTS AND BUDGETS

**WHEREAS**, the Joint Planning Regulations issued by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) require a Unified Planning Work Program for Transportation Planning (UPWP); and

**WHEREAS**, the UPWP is required as a basis and condition for all funding assistance for transportation planning to state, local, and regional agencies by the FHWA and FTA; and

**WHEREAS**, the FY 2007 UPWP for the Washington Metropolitan Area was adopted by the TPB on March 15, 2006; and

**WHEREAS**, revised work statements and budgets for projects in the FY 2007 UPWP have been developed by staff, the District of Columbia Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the Washington Metropolitan Area Transit Authority (WMATA) to modify projects and identify funding which will be carried over into FY 2008, as described in the attached materials; and

**WHEREAS**, at its March 2, 2007 meeting, the Technical Committee reviewed the proposed revised work statements and budgets for projects in the FY 2007 UPWP and recommended approval by the TPB;

**NOW, THEREFORE, BE IT RESOLVED THAT:** THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD approves amendments to the FY 2007 Unified Planning Work Program for Transportation Planning to include revised work statements and budgets for the FY 2007 UPWP, as described in the attached Memorandum of March 15, 2007 entitled: "FY 2007 UPWP Amendments to Include Revised Work Statements and Budgets" (pages A1-through A-13).

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

### RESOLUTION TO APPROVE CARRYOVER FUNDING FROM FY 2007 TO THE FY 2008 UNIFIED PLANNING WORK PROGRAM (UPWP)

**WHEREAS**, the Joint Planning Regulations issued by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) require a Unified Planning Work Program for Transportation Planning (UPWP); and

**WHEREAS**, the UPWP is required as a basis and condition for all funding assistance for transportation planning to state, local, and regional agencies by the FHWA and FTA; and

**WHEREAS**, the FY 2007 UPWP for the Washington Metropolitan Area was adopted by the TPB on March 15, 2006; and

**WHEREAS**, project work statements and budgets for carryover from FY 2007 to FY 200 have been developed for two projects, and District of Columbia Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT) and the Washington Metropolitan Area Transit Authority (WMATA) Technical Assistance Programs;

**NOW, THEREFORE, BE IT RESOLVED THAT:** THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD approves the work statements and budgets for carryover funding from FY 2007 to FY 2008 as described in the attached Memorandum of March 15, 2007 entitled "FY 2007 Carryover Work Statements and Budgets for the FY 2008 UPWP" (pages B-1 through B-13).

# **National Capital Region Transportation Planning Board**

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# MEMORANDUM

March 15, 2007

- **TO:** Transportation Planning Board
- FROM: Gerald Miller Chief, Program Coordination Department of Transportation Planning
- **SUBJECT:** FY 2007 UPWP Amendments to Include Revised Work Statements and Budgets

Attached are pages excerpted from the current FY 2007 UPWP indicating changes to the work statements and/or budgets for the following:

- I.C. Constrained Long-Range Plan: Carryover \$50,000, which is available due to delay in project submissions for the air quality conformity analysis, to continue work activity
- II.A. Air Quality Conformity: Carryover \$50,000, which is available due to delay in project submissions for the air quality conformity analysis, to continue work activity
- III.A. Network Development: Carryover \$75,000, which is available due to delay in project submissions for the air quality conformity analysis, to continue work activity
- IV.C. Household Travel Survey: Carryover \$1,200,000, which is available due to delay in start of interviews, to continue survey interviewing
- V. Technical Assistance
  - ► District: Carryover \$72,000 of unprogrammed funds
  - Maryland: Reduce budgets for six planning studies, add funding to the regional household travel survey in Maryland to expand the sample of GPS in-vehicle recorder surveys, and carryover \$306,500
  - Virginia: Carryover \$98,700 from five projects
  - ► WMATA: Carryover \$250,000 from one project

The total FY 2007 funding to be carryover is \$2,102,200.

Deletions are shown in strikeout and additions in **bold**.

# PROPOSED AMENDMENTS TO THE FY 2007 UPWP

### I. PLANS, PROGRAMS AND COORDINATION

#### C. CONSTRAINED LONG-RANGE TRANSPORTATION PLAN (CLRP)

The delay in submissions for the air quality conformity analysis of the 2007 CLRP and new TIP of about a month means that some expenditures for this work activity will not occur by June 30. Thus, the FY 2007 funding is reduced and will be carried over for this work activity in FY 2008.

Oversight:	Technical Committee; Travel Management Subcommittee (CMS element)
Cost Estimate:	\$ <del>526,240</del> <b>476,240</b>
Products:	Documentation of 2006 CLRP on new plan webpage with interactive maps and related materials
Schedule:	2006 documentation December 2006 materials on 2007 Update March 2007

### **II. FORECASTING APPLICATIONS**

#### A. AIR QUALITY CONFORMITY

The delay in submissions for the air quality conformity analysis of the 2007 CLRP and new TIP of about a month means that some expenditures for this work activity will not occur by June 30. Thus, the FY 2007 funding is reduced and will be carried over for this work activity in FY 2008.

Oversight:	Technical Committee and Travel Management Subcommittee, in consultation with MWAQC committees
Cost Estimate:	\$ <del>503,100</del> <b>453,100</b>
Products:	Final report on Air Quality Conformity Determination of 2006 CLRP and FY 2007-2012 TIP; Preliminary materials on Air Quality Conformity Assessment of 2007 CLRP and FY 2008-2013 TIP

Schedule:

June 2007

#### **III. DEVELOPMENT OF NETWORKS AND MODELS**

#### A. <u>NETWORK DEVELOPMENT</u>

The delay in submissions for the air quality conformity analysis of the 2007 CLRP and new TIP of about a month means that some expenditures for this work activity will not occur by June 30. Thus, the FY 2007 funding is reduced and will be carried over for this work activity in FY 2008.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	\$ <del>681,000</del> <b>606,000</b>
Products:	Series of updated transportation networks by mode, including technical training and documentation
Schedule:	June 2007

#### IV. TRAVEL MONITORING

#### C. TRAVEL SURVEYS AND ANALYSIS

#### 1. Household Travel Survey

The start of the main survey interviewing was rescheduled to begin in January, 2007 rather than in July, 2006. Because of this change in the start date of the survey interviewing, \$1.2 million in funding for this project will not be expended by June 30 and will be carried over into FY 2008.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	\$ <del>2,393,860</del> <b>1,193,860</b>
	(Basic program <del>1,625,760</del> state technical assistance \$382,400 <del>\$385,700 carryover from FY 2006</del> <del>\$2,393,860</del> <b>1,193,860</b> total )
Products:	Travel Survey Data from 10,000 Households

# V. TECHNICAL ASSISTANCE

# A. DISTRICT OF COLUMBIA

\$72,000 unprogrammed funding will be carried over to FY 2007.

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE: \$389,350 \$317,350

# B. <u>MARYLAND</u>

### **Miscellaneous Services**

The miscellaneous account is a mechanism established to address requests from MDOT, SHA, MTA, and local jurisdictions, which are too small or too short-lived to warrant separate work scopes. Authorizations to execute specific tasks are usually given by email or fax; this is particularly useful for quick turnaround. Past work has included requests for electronic data files, hard copy, or plots from any of the planning work activities at COG. Other requests have included participation in technical review committees and task forces and execution of small technical studies.

Cost Estimate: \$78,400 **\$48,400** 

Schedule: On-going activity

<u>MDOT Training / Technical Support</u> - As part of technical assistance work activities in previous years staff installed the regional travel demand modeling process in the offices of SHA's Travel Forecasting Section. Staff has subsequently worked with SHA in executing alternatives at the regional level and has provided staff training to both SHA and MTA staff members.

As part of these work activities, staff updates the transportation networks, land activity data files and travel demand models in SHA's offices to reflect the latest regional data files and modeling procedures. In FY 2007 staff will continue to work with SHA and MTA staff in project planning to apply these modeling procedures and to provide specific project assistance as requested under categories of: project planning, feasibility studies in selected corridors, and other planning studies. Staff also reviews and provides comment on milestone documentation reports, e.g., draft environmental impact statements, alternatives retained for detailed study, for various project planning studies in Maryland.

Cost Estimate: \$50,000 \$20,000

Schedule:

### Subregional Studies

I-270 / Corridor Cities Transitway - This work element will continue to assess the potential travel demand associated with highway and transit alternatives which have been carried forward and documented in the project's Draft Environmental Impact Statement. Previous alternatives included TDM, HOV, general use lane, and fixed guideway transit strategies. Refinements to be continued in FY2007 include preparation of travel demand forecasts for electronic toll lanes, transit alternatives, and use of FTA's Summit model to compare results among the transit alternatives studied.

Cost Estimate: \$60,000 **\$35,000** 

**Bi-County Transitway** - Recent activities on this project planning study have primarily been conducted by consultants to the Maryland MTA. This project is designed to provide technical support to MTA and their consultants, including application of the primary travel demand models (assistance with development of model inputs, execution and evaluation of model outputs), incorporation of new transit analysis at the corridor level, and evaluation of results generated in the alternatives analysis.

Cost Estimate: \$60,000 \$30,000 \$55,000 carryover from FY 2006

**MD 5 Express Toll Lane Study -** Consistent with MDOT's studies in the ICC, I-270 and Capital Beltway corridors of the feasibility of the express toll lane (ETL) concept and operations, this study is designed to test the approach in the MD 5 corridor of Prince George's County. Travel demand forecasts for ETL alternatives will be developed in the MD 5 corridor between the Charles County line and the Capital Beltway, both independently, and in conjunction with ETL operations on other facilities on a systems level basis.

Cost Estimate: \$35,000 carryover from FY 2006

US 301 Corridor Study - Building upon past efforts in the US 301 corridor, this study will consider additional highway / transit improvements in the area extending from south of La Plata to the US 50 interchange in the north. Travel demand forecasts will be developed for transportation alternatives as developed by MD SHA / MTA.

Cost Estimate: \$35,000 carryover from FY 2006

**US 301 Nice Bridge** - This study will consider capacity improvements to the Nice Bridge crossing of the Potomac River. Travel demand forecasts will be developed for transportation alternatives developed by Maryland Transportation Authority.

Cost Estimate: \$50,000 **\$15,000** 

### **Project Planning Support**

This project provides funding throughout the fiscal year as needed to support the above listed project planning activities. Work efforts may address ongoing corridor / subarea studies, such as the Capital Beltway and I-270, as well as the initiation of new planning studies, ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities. Specific project authorizations will occur throughout the fiscal year as priorities dictate.

Cost Estimate:	\$ <del>46,200</del> <b>\$58,797</b>
	\$300,000 in carryover from FY 2006

Regional Household Travel Survey Collection

This project will fund a portion of the data collection for the regional household travel survey of approximately 10,000 households in the TPB modeled region as described in work activity IV. C.1. This supplemental component consists of obtaining an expanded sample of approximately 260 households in Maryland for which global position satellite (GPS) invehicle data recorders will be employed. Utilizing GPS technology will provide more accurate data and enable better estimation of vehicle trip rates and vehicle miles of travel (VMT) and provide route choice data.

Cost Estimate:	\$ <del>152,600</del> <b>\$257,600</b>
Product:	Household travel data, with approximately 260 additional households using GPS recorders

Schedule: June 2007

Managed Lanes Study

MDOT included in the FY2007 UPWP a set of corridor studies, several of which involve the assessment of travel demand for managed lane operation. This project is designed to provide an order of magnitude assessment of such facility operations at the individual corridor level, as well as for an integrated system of such lanes throughout the Maryland portion of the Washington area. Technical methods will utilize the regional travel demand model to provide explicit representation of the managed toll facilities, and generate system performance for both the managed lanes and general use lanes in each corridor. Assessment criteria will include lane volume, composition, speed, toll level, and level of service throughout the day. The study is designed to identify candidate corridors / system design where the operation of managed travel lanes appears feasible and effective.

Cost Estimate: \$171,443 \$96,443

TOTAL MARYLAND COST ESTIMATE:	\$ <del>562,740 plus \$425,000</del>
	<del>carryover</del>
	from FY 2006
	<del>\$987,740 total</del> <b>\$681,240</b>
	· · ·

#### C. VIRGINIA

#### Program Development

This project is established to account for TPB staff time spent in developing scopes of work for requested projects and for administering the resultant work program throughout the year.

Work activities will involve meeting with VDOT and VDR&PT staff to discuss projects, draft and finalize work statements and tasks, create project accounts when authorized, and report progress on projects throughout the year.

Cost Estimate:	\$ <del>5,700</del> <b>\$1,700</b>
Product:	scopes of work, progress reports
Schedule:	on-going activity

#### Miscellaneous Services

A. This work element provides VDOT with the ability to undertake limited scope studies and or data gathering activities identified during its regional and sub-regional planning activity during fiscal year 2007. The Department is currently engaged in examining the merits and priority of a few competing projects which include: traffic volume studies in activity centers outside the Capital Beltway, strengthening of some components of the regional travel demand model, and enhancing the district-wide HOV traffic volume data collection program.

B The miscellaneous account is also a mechanism established to address requests, which are too small or too short-lived to warrant separate work scopes. Authorizations to execute specific tasks are usually given by fax; this is particularly useful for quick turnaround. Work items include: requests for hard copy, plots, tape, or diskettes of data from any of the planning work activities at COG, participation in technical review committees and tasks forces and execution of small technical studies.

Cost Estimate: \$10,000 \$6,400

Schedule: on-going activity

Northern Virginia HOV Facilities Monitoring and Data Collection

VDOT desires an abbreviated monitoring program of the system of limited access high-occupancy vehicle (HOV) facilities in Northern Virginia during the fall of fiscal year 2007. The HOV corridors to be monitored are:

- I-95 from Triangle, Prince William County to its interchange with the Capital Beltway at Springfield, Fairfax County;
- I-395 from the Capital Beltway to (and including) the 14th Street Bridge in the District of Columbia;
- I-66 from Gainesville, Prince William County to the District of Columbia end of the T. Roosevelt Bridge; and
- Virginia Route 267 (Dulles Toll Road) from the Fairfax County/Loudoun County line to I-66 (including Dulles Connector and Dulles Access Road).

Monitoring will consist of the following data collection projects:

- peak direction occupancy and classification counts (from 5 AM to 10 AM inbound and 3 PM to 8PM outbound) at a set of stations along these facilities. These stations will include the major count locations as specified by VDOT, and will be less than the usual number of locations.
- Off peak direction traffic volume and classification counts during the peak period (same as above) at selected locations to be performed in the spring of 2007 in Northern Virginia.
- Staff will also research, purchase, test, and perform travel time runs using GPS technology in Northern Virginia.

Data will be transmitted to VDOT after field data collection work, editing, and reasonableness checking have been completed.

Cost Estimate: \$260,000

Products:	Data files transmitted to VDOT
Schedule:	Fall counts completed by Nov. 30, 2006 Spring counts completed by June 30, 2007

### High Occupancy / Toll (HOT) Lane Analysis

As requested by the committee evaluating HOT lane proposals for any new PPTA proposal being considered by the Commonwealth, TPB staff will make appropriate coding changes to the regional transportation network and analyze the transportation impacts (volume changes, speed changes, or so forth) that could result from construction and operation of the proposed HOT lanes. The results of this analysis will be provided to the evaluation committee.

Cost Estimate:	<del>\$85,000</del> <b>\$39,900</b>
Products:	Analysis results
Schedule:	Fall, 2006 or Spring, 2007

### Public Safety / Information Pamphlets

Production or re-printing of public safety pamphlets for distribution at public meetings on 1) bike safety and use of highways, 2) state code provisions applicable to cyclists and pedestrians, and / or 3) regional map of commuter parking lots.

Cost estimate:	\$ <del>25,000</del> <b>0</b>
Product:	pamphlets
Schedule:	Fall 2006 or Winter 2007

### Enhanced Commuter Corridor Count Program

This work element will dovetail with the scheduled TPB count program (either the metro cordon count or the VDOT HOV monitoring program) to obtain additional data on modal use in I-95 / 395 corridors. This additional data will provide statistically reliable information on modal use in the selected corridor that will be beneficial to planners and decision makers. While technical assistance funding will be used for the TPB data collection effort, the success of this work element is predicated on transit providers providing ridership data, free of charge, to be integrated into the overall data analysis. This ridership data must be collected in the same time period as the TPB traffic count data collection effort in order to accurately depict modal shares. (If additional funding is identified, the data will be analyzed and documented in a technical report.)

Cost Estimate:	\$46,000 carryover from 2006 \$25,000
Product:	Data files
Schedule:	Data collection to occur in FY 2007

### Regional Household Travel Survey Collection

This project will fund a portion of the data collection for the regional household travel survey of approximately 10,000 households in the TPB modeled region as described in work activity IV. C.1.

	Cost Estimate:	\$128,200	
	Product:	household tra	avel data
	Schedule:	June 2007	
ΤΟΤΑ	L VIRGINIA COST E	ESTIMATE:	\$513,900 plus \$46,000 carryover from FY 2006 \$559,900 total <b>\$461,200</b>

## D. <u>WMATA</u>

## Program Development

This project is established to account for DTP staff time spent in developing scopes of work for requested projects and for administering the resultant work program throughout the year. Work activities will involve meeting with WMATA staff to discuss projects, drafting and finalizing work statements and tasks, creating project accounts when authorized, and reporting progress on projects throughout the year. In addition, this project will provide staff with resources to attend required meetings at WMATA.

Cost Estimate: \$10,000

Schedule: on-going activity

## Miscellaneous Services

This miscellaneous account is a mechanism established to address requests which are too small or too short-lived to warrant separate work scopes. Past

work has included requests for hard copy, plots, tape, or diskettes of data from any of the planning work activities at COG.

> Cost Estimate: \$7,300 Schedule: on-going activity

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#### <u>Develop WMATA's Geo-Spatial Information Capabilities to Enhance Regional</u> <u>Planning</u>

TPB staff, WMATA jurisdictional partners and other associated regional stakeholders routinely request data from WMATA about bus stops and routes, rail stations, service levels, ridership and on-time performance, among other things. Each of these data elements has a geo-spatial component that can be used to enhance the region's planning and analytical capabilities. Additionally, Metro Access requires high quality GIS data in order to coordinate service and provide the best quality service to qualified physically challenged riders.

WMATA seeks to use its UPWP funds to document and understand the current and future needs of its stakeholders throughout the Region, detail the specific requirements necessary to meet those needs, and develop a plan for a geo-spatial information dissemination capability that will benefit those stakeholders and enhance regional planning. If funding remains available, these funds can be used toward a demonstration project that could include dissemination of Regional Bus Stop data.

In FY 2006, WMATA and TPB staff will develop an RFQ for consultant assistance for the following activities. In FY 2007, WMATA and TPB staff will work with the consultant to perform the tasks associated with those needs identified above.

<u>Cost estimate:</u>	<del>\$147,000 plus \$103,000 carryover</del> <del>from 2006</del> <del>\$250,000 total</del>
Products:	<ul> <li>Enhanced GIS Specification</li> <li>Document</li> <li>Bus Stop Inventory Dissemination</li> <li>Application (Funding dependent)</li> </ul>
Schedule:	June 2007
TOTAL WMATA COST ESTIM	ATE: \$164,300 plus \$103,000 carryover from 2006

\$267,300 total \$17,300

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# MEMORANDUM

March 15, 2007

- **TO:** Transportation Planning Board
- FROM: Gerald Miller Chief, Program Coordination Department of Transportation Planning
- **SUBJECT:** FY 2007 Carryover Work Statements and Budgets for the FY 2008 UPWP

Attached are pages excerpted from the draft FY 2008 UPWP with changes and additions shown in **bold** to reflect the carryover funding from FY 2007 to FY 2008. The FY 2008 work elements affected by the FY 2007 carryover funding are as follows:

- 1.C. Constrained Long-Range Plan: Carryover \$50,000, which is available due to delay in project submissions for the air quality conformity analysis, to continue work activity
- 3.A. Air Quality Conformity: Carryover \$50,000, which is available due to delay in project submissions for the air quality conformity analysis, to continue work activity
- 4.A. Network Development: Carryover \$75,000, which is available due to delay in project submissions for the air quality conformity analysis, to continue work activity
- 5.C. Household Travel Survey: Carryover \$1,200,000, which is available due to delay in start of interviews, to continue survey interviewing
- 6. Technical Assistance
  - District: Carryover \$72,000 of unprogrammed funds
  - Maryland: Reduce budgets for six planning studies, add funding to the regional household travel survey in Maryland to expand the sample of GPS in-vehicle recorder surveys, and carryover \$306,500
  - Virginia: Carryover \$98,700 from five projects
  - ► WMATA: Carryover \$250,000 from one project

The final version of the FY 2008 UPWP will combine the carryover funding and new

funding into one work program for submission to FTA and FHWA. The proposed budget levels for these carryover projects by funding source, which includes FTA and FHWA funding together with state and local match, are shown in Table 1.

#### TABLE 1

3/14/2007

### PROJECT CARRYOVER FROM FY2007 TO FY2008 BY FUNDING SOURCE

WORK ACTIVITY	FY2007 FUNDS	FTA/STATE/	FHWA/STATE/
		LOCAL	LOCAL
I. PLAN SUPPORT			
C. Constrained Long-Range Plan	50,000	9,840	40,160
II. FORECASTING APPLICATIONS			
A. Air Quality Conformity	50,000	9,840	40,160
III. DEVELOPMENT OF NETWORKS/MODELS			
A. Network Development	75,000	14,760	60,240
IV. TRAVEL MONITORING			
C. Household Travel Survey	1,200,000	236,157	963,843
Subtotal	1,375,000	270,597	1,104,403
V. TECHNICAL ASSISTANCE			
A. District of Columbia	72,000	5,652	66,348
B. Maryland	306,500	24,059	282,441
C. Virginia	98,700	7,747	90,953
D. WMATA	250,000	250,000	
Subtotal	727,200	287,458	439,742
TOTAL	2,102,200	558,055	1,544,145

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# CARRYOVER WORK STATEMENTS AND FUNDING FOR THE FY 2008 UPWP

# 1. PLAN SUPPORT

# C. CONSTRAINED LONG-RANGE TRANSPORTATION PLAN (CLRP)

Cost Estimate: \$558,100 after \$50,000 carryover from FY 2007

# 3. FORECASTING APPLICATIONS

# A. AIR QUALITY CONFORMITY

## Cost Estimate: \$563,200 after carryover of \$50,000 from FY 2007

# 4. DEVELOPMENT OF NETWORKS AND MODELS

# A. <u>NETWORK DEVELOPMENT</u>

FY 2008 efforts will focus on the development of TP+ highway and transit networks in

Version 2.2 model format on the 2,191-zone modeled area using information gathered electronically and/or in paper format. This process will make use of available information in COG's GIS and the Data Clearinghouse to facilitate development of networks supporting 1) air quality conformity analysis and 2) scenario testing as part of TPB regional studies.

Activities in FY 2008 will begin with the compilation of the latest available transit route and schedule information from WMATA and other transit providers in the peak and off-peak formats required for the travel demand models. All traffic count data will be converted to AWDT format for use in highway networks required for these models. A set of TP+ networks for highway and transit will be coded from this information depicting current year conditions.

Using these networks as a starting point, a series of FY2009-2014 TIP and Plan Conformity networks will be developed for the following analysis years: 2008, 2009, 2010, 2020, and 2030 and other years as specified in upcoming federal guidance. Tasks involved are as follows:

- receive and organize project inputs to the FY2009-2014 TIP and amended CLRP;
- code, edit, and finalize networks for highway, HOV, and transit;
- develop transit fare matrices consistent with these networks;

provide documentation and training in the development of these highway and transit networks.

TPB currently manages highway networks in a time-series fashion within a geographic database using GIS. This practice has increased the efficiency and quality of highway network coding, but current highway coding methods could be improved. Moreover, the need to add transit network features as a part of the TPB geo-database is also identified as an immediate need. Demands on the network development program have been more difficult to meet as transit network alternatives have increased in complexity and as new high occupancy toll (HOT) lane alternatives have emerged.

To improve network coding procedures and to better manage network development, consultant support is anticipated for a review of the current highway and transit network development processes. The consultant will 1) interview TPB staff and develop a user requirements document, and 2) recommend options for improving network coding efficiency and data quality/consistency. Refined network coding procedures will not only benefit existing modeling needs, but will also enable staff to accommodate future Transportation Analysis Zone (TAZ) refinements that are being planned.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	\$769,500 after carryover of \$75,000 from FY 2007
Products:	Series of updated transportation networks by mode, including technical training and documentation
Schedule:	June 2008

### 5. TRAVEL MONITORING

## C. TRAVEL SURVEYS AND ANALYSIS

### 1. Household Travel Survey

Cost Estimate: \$2,328,400 after \$1,200,000 carryover from FY 2007

# 6. TECHNICAL ASSISTANCE

### A. DISTRICT OF COLUMBIA

### DDOT Traffic Counts

Perform machine traffic counts at 187 locations (26 seven day and classification counts and the remaining 3 day total volume counts). These counts are to include HPMS Representative Legs. Counts are to avoid proximity to holidays or unusual days; will be reported in 15 minute increments (in DDOT/Traffic Services Administration (TSA) Excel Format) with hourly and daily summaries; and will include daily (for weekdays) 10 to 24 hour factors (ratios of 7 am to 1 pm and 2 pm to 6 pm to 24 hour volumes); daily (for all days of the week) peak hour volumes, times and K factors; directional splits and peak hour (by direction and two way) to 24 hour factors. These counts will include quality control checking and tabulation and analysis of data collected in FY 2007.

Cost Estimate:	\$205,000 after \$35,000 carryover from FY 2007
Products:	Machine traffic counts
Schedule:	June 2008

#### \$37,000 carryover from FY 2007 remains to be specified.

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE:

\$372,600 after \$72,000 carryover from FY 2007

### B. <u>MARYLAND</u>

#### SHA - Western Mobility / Capital Beltway Studies

This project represents system level forecasting work which is performed in support of ongoing SHA project planning activities. In recent years, COG staff developed and analyzed travel forecasts for various alternatives in each of these corridors. These activities will be continued within this category on a specific request basis, as tasks are received.

Cost Estimate: \$85,000 using FY2007 carryover funds

#### MTA - Corridor Cities Transitway / Bi-County Transitway

Recent activities on these project planning studies have primarily been

conducted by consultants to the Maryland MTA. This project is designed to provide technical support to MTA and their consultants, including application of the primary travel demand models (assistance with development of model inputs, execution and evaluation of model outputs), incorporation of new transit analysis at the corridor level, and evaluation of results including through use of FTA's Summit model to compare results among the transit alternatives studied.

Cost Estimate: \$85,000 using FY2007 carryover funds

## Project Planning Support

This project provides funding throughout the fiscal year as needed to support the above listed project planning activities. Work efforts may address ongoing corridor / subarea studies, such as the Capital Beltway and I-270, as well as the initiation of new planning studies, ranging from major new corridor analyses to the development of travel demand forecasts for individual facilities. Specific project authorizations will occur throughout the fiscal year as priorities dictate.

### Cost Estimate: \$61,500 using FY2007 carryover funds

Managed Lanes - Planning

This project, initiated in FY2007, involves executing travel demand forecasts for managed lane facility operations in individual corridors, as well as for an integrated system of such lanes, throughout the Maryland portion of the Washington area. The current study is designed to identify candidate corridors / system design where the operation of managed travel lanes appears feasible and effective.

Cost Estimate: \$246,400 after \$75,000 carryover from FY 2007

Product: Technical reports

Schedule: December 2007

TOTAL MARYLAND COST ESTIMATE: \$886,100 after \$306,300 carryover from FY 2007

## C. <u>VIRGINIA</u>

### Program Development

This project is established to account for TPB staff time spent in developing scopes of work for requested projects and for administering the resultant work program throughout the year.

Work activities will involve meeting with VDOT and VDR&PT staff to discuss projects, draft and finalize work statements and tasks, create project accounts when authorized, and report progress on projects throughout the year.

Cost Estimate:	\$11,000 after \$3,600 carryover from FY 2007
Product:	scopes of work, progress reports
Schedule:	on-going activity

### Miscellaneous Services

- A. This work element provides VDOT and VDRPT with the ability to undertake limited scope studies and or data gathering activities identified during its regional and sub-regional planning activity during fiscal year 2007.
- B. The miscellaneous services account is also a mechanism established to address request that are too small or too short-lived to warrant separate work scopes. Authorizations to execute specific tasks are usually given by fax; this is particularly useful for quick turnaround. Work items include: requests for hard copy, plots, tape, or diskettes of data from any of the planning work activities at COG, participation in technical review committees and tasks forces and execution of small technical studies.

Cost Estimate: \$17,000 after \$7,000 carryover from FY

2007

Schedule: on-going activity

## Northern Virginia HOV Facilities Monitoring and Data Collection

VDOT desires an abbreviated monitoring program of the system of limited access high-occupancy vehicle (HOV) facilities in Northern Virginia during the fall of fiscal year 2008. The HOV corridors to be monitored are:

- I-95 from Triangle, Prince William County to its interchange with the Capital Beltway at Springfield, Fairfax County;
- I-395 from the Capital Beltway to (and including) the 14th Street Bridge in the District of Columbia;

- I-66 from Gainesville, Prince William County to the District of Columbia end of the T. Roosevelt Bridge; and
- Virginia Route 267 (Dulles Toll Road) from the Fairfax County / Loudoun County line to I-66 (including Dulles Connector and Dulles Access Road).

Monitoring will consist of the following data collection projects:

- Peak direction occupancy and classification counts (from 5 AM to 10 AM inbound and 3 PM to 8PM outbound) at a set of stations along these facilities. These stations will include the major count locations as specified by VDOT, and will be less than the usual number of locations.
- Off-peak direction traffic volume and classification counts during the peak period (same as above) at selected locations to be performed in the spring of 2005 in Northern Virginia.
- Staff will also research, purchase, test, and perform travel time runs using GPS technology in Northern Virginia.

Data will be transmitted to VDOT after field data collection work, editing, and reasonableness checking have been completed. Preliminary data will be transmitted to VDOT within one week of the count so that a timely determination can be made regarding the need for a re-count.

Cost Estimate:	\$285,000 after\$15,000 carryover from FY 2007
Products:	Data files transmitted to VDOT
Schedule:	Fall counts completed by Nov. 30, 2007 Spring counts completed by June 15, 2008

High Occupancy / Toll (HOT) Lane Traffic Analyses

As requested by the Commonwealth, COG staff will perform traffic analyses of proposed HOT lane projects in order to assist decision-makers in evaluating the impacts of the proposed HOT lanes. The COG analysis will consider transit improvements (including commuter lots and expanded bus service).

Cost Estimate:	\$45,000 after \$15,100 carryover from FY 2007
Products:	Analysis results
Schedule:	Fall, 2007 or Spring, 2008

Public Safety / Information Pamphlets

Production or re-printing of public safety pamphlets for distribution at public meetings on 1) bike safety and use of highways, 2) state code provisions applicable to cyclists and pedestrians, and / or 3) regional map of commuter parking lots.

Cost estimate:	\$15,000 after \$15,000 carryover from FY 2007
Product:	pamphlets
Schedule:	Fall 2007 or Winter 2008

### Recommend Supplemental Traffic Counts

In 2007 travel survey data will be collected from 10,000 households in the metropolitan region. WMATA is also planning a spring 2007 Metrorail survey. These data along with transit ridership data obtained from transit agencies in the region will be used to develop and calibrate a new regional travel demand forecasting model. To support this new model development and calibration, it would be extremely useful and important to have additional traffic counts conducted at many geographic locations throughout the metropolitan region in 2007. These traffic counts would be in addition to and would supplement traffic counts already planned by the DOTs. The supplemental counts would ensure a large and representative regional sample of highway traffic volume data for model development and calibration.

Approximately 167 supplemental traffic counts will be conducted during in FY 2008 on selected arterials in Northern Virginia to augment the counts in Virginia's planned statewide HPMS data collection activities and to assist in the validation of the regional travel demand forecast model.

Cost Estimate:	\$125,000 after \$18,000 carryover from FY 2007
Product:	additional HPMS traffic counts
Schedule:	on-going activity

## Enhanced Commuter Corridor Count Program Continuation

This work element will continue prior work under this task and will dovetail with the scheduled TPB count program to obtain additional data on modal use in either the

I-66 or I-95 / 395 corridors. This additional data will provide statistically reliable information on modal use in the selected corridor that will be beneficial to planners and decision makers. While technical assistance funding will be used for the TPB data collection effort, the success of this work element is predicated on transit providers providing ridership data, free of charge, to be integrated into the overall data analysis. This ridership data must be collected on the same day as the TPB data collection effort in order to accurately depict modal shares.

	Cost Estimate:	\$45,0 2007	00 after \$25,000 carryover from FY
	Schedule:	Data	collection to occur in FY 2008
TOTAL VIRC	GINIA COST ESTIMA	ATE:	\$553,000 total after \$98,700 carryover from FY 2007

## D. <u>WMATA</u>

### Accessible Pathways Analysis for MetroAccess Customers

In this project TPB and WMATA staff will review and assemble relevant regional transportation and MetroAccess data needed to conduct an Accessible Pathways Analysis for MetroAccess Customers. After this information has been assembled, it is anticipated that consultant assistance would be obtained to develop and test a methodology for prioritizing the need for and general routing of accessible pathways for MetroAccess trips. These accessible pathways would achieve two objectives:

- Connect concentrations of MetroAccess patrons with fixed route transit service; and
- Connect fixed route transit service and high-frequency destinations based on existing MetroAccess trip data.

Cost Estimate:\$200,000 using carryover from FY 2007Schedule:December 2007

Geocode 2007 WMATA Rail Survey Data

This project will Geocode the home address data collected in the Spring 2007 WMATA rail passenger survey to Transportation Analysis Zones (TAZs) for the

TPB Modeled Region. For this project TPB staff will (1) geoprocess all of the home address data; (2) hire, train and supervise the temporary geocoding clerks; and (3) provide overall project management and quality control. COG/TPB will deliver to WMATA an updated rail passenger survey file with TAZ geocodes and other appropriate geoprocessing flags appended to each survey record.

Cost Estimate:	\$75,000 after \$50,000 carryover from FY 2007
Schedule:	October 2007
TOTAL WMATA COST ES	STIMATE: \$416,300 after \$250,000 carryover from FY 2007