ITEM 9 - Action
March 17, 2010

Approval of Amendments to FY 2010 Unified Planning Work Program (UPWP), and Approval of FY 2010 UPWP Carryover Funding to FY 2011

Staff Recommendation:

- Adopt Resolution R18-2010 to amend the FY 2010 UPWP.

- Adopt Resolution R19-2010 to approve the FY 2010 carryover funding for FY 2011.

Issues: None

Background: The Technical Committee at its March 5 meeting recommended that the attached amendments to the FY 2010 UPWP, together with the FY 2010 carryover funding to FY 2011 be presented for Board approval.

The final version of the FY 2011 UPWP will incorporate this carryover funding into the final work program to be submitted to the state departments of transportation and the Federal Highway and Transit Administrations.

TPB R18-2010
March 17, 2010

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

RESOLUTION TO AMEND THE FY 2010 UNIFIED PLANNING WORK PROGRAM TO INCLUDE REVISED WORK STATEMENTS AND BUDGETS

WHEREAS, the Joint Planning Regulations issued on February 14, 2007 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 2010 UPWP for the Washington Metropolitan Area was adopted by the TPB on March 18, 2009; and

WHEREAS, revised work statements and budgets for projects in the FY 2010 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 2010, as described in the attached materials; and

WHEREAS, at its March 5, 2010 meeting, the Technical Committee reviewed the proposed revised work statements and budgets for projects in the FY 2010 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 2010 Unified Planning Work Program for Transportation Planning to include revised work statements and budgets for the FY 2010 UPWP, as described in the attached Memorandum of March 9, 2010 entitled: “FY 2010 UPWP Amendments to Include Revised Work Statements and Budgets” (pages A1-through A-18).

TPB R19-2010
March 17, 2010

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

RESOLUTION TO APPROVE CARRYOVER FUNDING FROM FY 2010 TO THE FY 2011 UNIFIED PLANNING WORK PROGRAM (UPWP)

WHEREAS, the Joint Planning Regulations issued February 14, 2007 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 2010 UPWP for the Washington Metropolitan Area was adopted by the TPB on March 18, 2009; and

WHEREAS, project work statements and budgets for carryover from FY 2010 to FY 2011 have been developed for five projects, and Technical Assistance Programs of the District of Columbia Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), and the Virginia Department of Transportation (VDOT);

NOW, THEREFORE, BE IT RESOLVED THAT: THE NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD approves the work statements and budgets for carryover funding from FY 2010 to FY 2011 as described in the attached Memorandum of March 9, 2011 entitled “FY 2010 Carryover Work Statements and Budgets for the FY 2011 UPWP” (pages B-1 through B-19).

National Capital Region Transportation Planning Board

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M E M O R A N D U M

March 9, 2010

TO: Transportation Planning Board

FROM: Gerald Miller
Director, Program Coordination
Department of Transportation Planning

SUBJECT: FY 2010 UPWP Amendments to Include Revised Work Statements and Budgets

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Attached are pages excerpted from the current FY 2010 UPWP indicating changes to the work statements and/or budgets for the following:

- 2.I.Metropolitan Area Transportation Operations Coordination Program Planning: Carryover $30,000 which is available due to the delay in starting the planning support activities.

- 3.C, Regional Studies: Carry over $200,000, which will be used to complete the development of a regional network of priority bus corridors building on the TIGER grant with 3- and 5-year phases and for the consultant to complete Phase II of Implementation Guidelines for Prioritizing Bus Transit on Arterials by October 31, 2010.

- 4.C. Models Development: Carryover $150, 000, which is available due to the deferment of a consultant-assisted effort to support and facilitate the development of an advanced (tour-based/activity-based) travel demand model. Studies sponsored by the Association of Metropolitan Planning Organizations (AMPO) and the National Cooperative Highway Research Program are on-going to assess the experience and documentation of other MPOs that have experience using these new models. Delaying this effort until FY 2011 will benefit from considering the information collected by these national studies.

- 5.B. Congestion Monitoring and Analysis: Carryover $125,000, which is available due to a delay in starting the second year of collecting data on the enhanced system of arterial highways. These data will be collected in FY 2011.

- 5.D. Regional Transportation Data Clearinghouse: Carryover $50,200, which will fund the project to process, summarize, and analyze highway speed data collected by INRIX Inc vehicle fleet probe vehicles for major sections of the regional transportation network.

- 6. Technical Assistance

  - District of Columbia: Reduce budgets for four projects and carryover $88,750 for four projects

  - Maryland: Reduce budgets for four planning studies and carryover $240,000 for four projects

  - Virginia: Specify three FY 2010 projects with total budgets of $84,000 and carryover $274,000 for six projects

The total FY 2010 funding to be carried over is $ 1,157,950

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

PROPOSED AMENDMENTS TO THE FY 2010 UPWP

2. COORDINATION AND PROGRAMS

I. METROPOLITAN AREA TRANSPORTATION OPERATIONS COORDINATION PROGRAM PLANNING

Under this work task, TPB will provide planning support for the Metropolitan Area Transportation Operations Coordination (MATOC) Program, in conjunction with the MATOC Steering Committee, subcommittees, and partner agencies. This task is the metropolitan transportation planning component of a larger set of MATOC Program activities, including operational and implementation activities, primarily funded outside the UPWP.

Historically, MATOC operational activities have been paid for by a dedicated grant from the SAFETEA-LU federal transportation legislation, and are anticipated to be funded with other operations-eligible sources in the future. As a complement to the externally-funded operations activities noted above, this UPWP task is to provide ongoing TPB staff and consultant planning assistance to the MATOC Program, as a part of the TPB's metropolitan transportation planning activities.

Planning activities under this task include:

- Committee Support: Provide administrative support of MATOC Steering Committee, Executive Committee, and subcommittee meetings, including preparation of agendas and summaries and tracking of action items.

- TPB Reports: Provide regular briefings to the TPB on MATOC Program progress.

- TPB Staff Participation: Provide input and advice to the MATOC Information Systems Subcommittee and Operations Subcommittee.

- Coordinate as necessary with the Management, Operations, and Intelligent Transportation Systems (MOITS) Policy Task Force and MOITS Technical Subcommittee; MATOC focuses on short-range planning issues for traffic management, and MOITS focuses on mid-to-long-range planning for traffic management.

- Outreach: Coordinate the work of MATOC with other organizations, for example, with public safety or emergency management groups and media representatives; prepare articles, presentations and brochures to convey MATOC concepts, plans, and accomplishments. Also coordinate with the COG Regional Emergency Support Function # 1 - Emergency Transportation Committee.

- Implementation Planning: Prepare implementation plans describing the work

required to reach defined stages of MATOC operating capability, including expert input from MATOC subcommittees.

- Financial and Legal Analysis: Support discussion of the identification of funding sources, estimation of funding needs, as well as preparation of legal agreement materials that provide for the long term sustainability of MATOC.

- Performance Measurement: Support MATOC committee discussions of assessing progress against MATOC's defined goals and objectives.

- Risk Management: Identify and monitor major risks to progress and identify actions to be taken in order to avoid incurring risks or mitigating their consequences.

- Supporting Materials: Develop supporting or informational materials for the above activities as necessary.

Oversight: MATOC Steering Committee; MOITS Policy Task Force and Technical Subcommittee

Cost Estimate: ~~$120,000~~ **$90,000**

Products: Agendas, minutes, summaries, and outreach materials as needed; white paper(s) on technical issues as needed; regular briefings and reports to the TPB, MATOC committees, and the MOITS Policy Task Force and Technical Subcommittee.

Schedule Monthly

3. FORECASTING APPLICATIONS

C. REGIONAL STUDIES

Regional Mobility and Accessibility Scenario Study

In September 2007, the TPB Scenario Study Task Force was established to provide policy-level stewardship for this study and related TPB activities, including consideration of opportunities for integration of the study findings into TPB planning processes and initiatives. Under the guidance of the task force in the first half of FY 2009, the “CLRP Aspirations” transportation and land use scenario was developed drawing upon the individual strategies reflected in the RMAS scenarios and the variably-priced lane scenario study. In addition, the "What Would It Take" scenario was developed to assess what scales and combination of interventions would be

necessary to achieve significant reductions in CO_2 emissions reductions by 2020 and 2050.

The American Recovery and Reinvestment Act of 2009 (ARRA), which included a new Transportation Investments Generating Economic Recovery (TIGER) Competitive Grant Program with $1.5 billion to be awarded by the US Department of Transportation became law on February 7, 2009. Beginning in the spring of 2009, the TPB authorized its Scenario Study Task Force to develop a Federal Stimulus TIGER grant application to fund a regional network of priority bus corridors, bike-sharing and intermodal transit centers. This grant provides the region the opportunity to secure significant funding to implement a first phase of the "CLRP Aspirations" Scenario.

The following activities will be conducted in FY 2010:

Short-Range Implementation Studies

- Through a process of regional coordination and collaboration, develop a regional package of priority bus corridors and other related projects for inclusion in the regional TIGER Grant application, to be submitted by September 15, 2009.

- Building on the TIGER grant **awarded in February 2010** to fund a regional network of priority bus corridors, **begin work to** develop a regional network of priority bus corridors with phases for 3- and 5-year implementation from 2010 that expands the initial network, submitted for the TIGER grant, to include additional state, local and transit operator priorities. This arterial network of priority bus corridors will be developed through inter-agency coordination and will focus on complementing the Metrorail system, drawing from the WMATA Priority Corridor Network (PCN) and the CLRP Aspirations Scenario's regional network of rapid/express bus on managed lanes. The costs and benefits of implementing the 3- and 5-year phases of the regional priority corridor network will be assessed using the methodology developed for the TIGER grant application. Maps and advanced visualizations of this regional arterial priority corridor network will be developed to assist in communicating the benefits of the regional system to decision-makers, the public and developers.

- To further the momentum from the TPB's Regional Priority Bus Conference in June 2009, develop a set of implementation guidelines for prioritizing bus transit on arterials in the Washington region. A technical working group of staff from transit agencies and departments of transportation in the region will be established to guide a consultant in the preparation of report detailing these implementation steps. The report will describe and evaluate all feasible priority strategies, including bus stop locations, transit signal priority, queue jump lanes, and dedicated bus lanes. Beginning with a literature review of the experience of such strategies in the United States, the consultant will assess the applicability of

these bus prioritizations strategies for the region, and identify the costs, benefits and how to address potential implementation barriers.

Long-Range Scenario Studies

- Conduct analysis of the "CLRP Aspirations" and "What Would It Take" scenarios.

- Conduct public outreach designed to inform possible implementation of regional strategies.

- Prepare report on public feedback on the scenarios and recommendations for incorporating scenario planning activities into the regional planning process.

- "Drill-down" to the community and project level within the CLRP Aspirations scenario to assess local level travel impacts and help identify where land use shifts are particularly crucial and transportation improvements may need to be focused.

- Based upon a review of the projects, land use forecasts and performance of the 2010 CLRP, revise and update the CLRP Aspirations scenario looking to 2040 to reflect an additional decade of growth.

- Review developments in strategies to reduce mobile CO2 emissions in the three categories of the "What Would It Take" scenario and update the assessment of scales and combination of interventions that would be necessary to achieve significant reductions in CO2 emissions reductions by 2020, 2030 and 2050.

Oversight: TPB Scenario Study Task Force

Cost Estimate: ~~$615,800~~ **$415,800**

Products:

- A TIGER grant application to fund a regional network of priority bus corridors, bike-sharing and intermodal transit centers.

- **Initial work to develop a** Regional Arterial Corridor Network with 3- and 5-year phases, including visualization and cost/benefit analysis.

- **Phase I of** Implementation Guidelines for Prioritizing Bus Transit on Arterials in the Washington region

- Analysis of updated CLRP Aspirations scenario reflecting public feedback and looking to 2040.

- Update of the What would It Take scenario.

Schedule: June 2010- **Initial work on a** Regional Arterial Corridor Network with 3- and 5-year phases; **Phase I of** Implementation Guidelines for Prioritizing Bus Transit on Arterials in the Washington region.

June 2010 - Analysis of updated CLRP Aspirations scenario

January 2010 - Update of the What would It Take scenario.

4. DEVELOPMENT OF NETWORKS AND MODELS

C. MODELS DEVELOPMENT

The Models Development program serves to improve the TPB's travel forecasting practice on a continuing basis. The program encompasses short-term improvements to the TPB's existing travel model which can be implemented quickly, as well as longer term improvements that may require several years to become operational. Specific travel modeling improvements are identified on the basis of recommendations that result from periodic travel model reviews, from special needs identified by the TPB, or from methodological advances emerging from the research community.

During FY 2009, TPB staff released a draft travel demand forecasting process known as the Version 2.3 model. Version 2.3 was built off of the currently adopted Version 2.2 model, and features two key refinements: 1) the inclusion of a nested-logit mode choice modeling step and 2) updated medium and heavy truck models. It is anticipated that a comprehensive re-calibration and re-validation of Version 2.3 model will commence in FY 2010 using the 2007/8 Household Travel Survey. The calibration effort will involve a more detailed (3,700) transportation analysis zone (TAZ) system, whose development began in FY 2009. The Models Development program will also include activities aimed at keeping abreast of best practices and developing longer term travel forecasting improvements.

Prior to a re-calibration of the Version 2.3 model, the draft Version 2.3 model will undergo sensitivity testing. The results of sensitivity testing may suggest the need to further modify model. Staff plans to test enhancements to the model, such as the explicit consideration of transit fare subsidies which have grown considerably in recent years. Staff will also investigate available options to shorten the running time of the model which is especially important given that the more detailed TAZ system will drive up model execution times.

Re-calibration of the Version 2.3 model will require preparatory work activities given

that newly collected data will be used and given that a new TAZ system will be adopted. Pending a review of the TAZ system, base year highway and transit networks will be established about the new zone system. 2007 traffic counts will be assembled and coded into the highway network. Logic checking and verification checks of the Household Travel Survey files will also be undertaken. Subsequently, network-based level of service skims and survey files will be merged into calibration files.

For the past few years, TPB has maintained a task order consulting contract to perform an ongoing scan of best modeling practices across the U.S. This arrangement will continue during FY 2010. Such an arrangement has proven effective at keeping the regional travel model in step with best practices across the country and has also served to inform the strategic direction of the models development program.

~~During FY 2010, TPB staff plans to initiate a multi-year consultant contract to begin the development of more advanced travel forecasting methodology for the Washington, D.C. region. Advanced methods emerging from research (i.e., tour-based or activity-based travel models) have been promoted by the academic community but have not yet been broadly embraced by MPOs. TPB will likely favor an incremental development approach, paying attention to the experiences of the few agencies who have gained experience in the development and application of advanced travel models~~.

The TPB has historically refreshed the existing airport travel demand forecasts using the latest available air passenger survey. The surveyed travel pattern is used as a base upon which forecasted airport travel patterns are developed. During FY 2010, the 2007 Washington-Baltimore Air Passenger Survey will be used to update the TPB's forecasts of auto travel to the region's three major commercial airports. Staff will also keep abreast of emerging methods to model airport access demand model, incorporating choice of airport mode of access.

The TPB has played a leadership role in establishing a national forum comprised of MPO travel forecasters across the U.S, in cooperation with the Association of Metropolitan Planning Organizations (AMPO). The forum, known as the AMPO Travel Modeling Work Group, has served to promote understanding between MPO travel forecasters regarding methods currently being used in practice. TPB will continue its role in facilitating this group during FY 2010. One or two meetings are expected to convene during the fiscal year.

Finally, during FY 2010, staff will continue to review best practice in travel demand modeling through participation in the Transportation Research Board-sponsored conferences and literature reviews. Staff will provide documentation for all products from the models development program.

Oversight: Travel Forecasting Subcommittee

Cost Estimate: $1,071,200
$150,000 carryover from FY 2009
I ~~$1,221,200 total~~ **$1,071,200**

Products: Recommendations for continued updating of the travel demand modeling process, documentation of all activities

Schedule: June 2010

5. TRAVEL MONITORING

B. CONGESTION MONITORING AND ANALYSIS

Performance of the arterial highway system is monitored each year through the conduct of travel time/speed runs on a sample of arterial roadways, primarily drawn from the National Highway System. This system was enhanced in FY 2009 to encompass 430 miles of arterial highways. Each year approximately one third of the sample roadways are monitored; data are collected and are subsequently analyzed and reported by the end of the fiscal year. In FY 2009, the first year of the enhanced system of routes was started but not completed. In FY 2010 the first ~~and second~~ year of the enhanced system will be completed **and reported, and data collection for the second year of the enhanced system will be conducted**. ~~Comparison of the findings with 2004 and 2007 will be conducted and changes to the system over time will be reported.~~

Total Cost: $350,000
$175,000 carryover from FY 2009
~~$525,000 total~~ **$400,000**

Oversight: Travel Forecasting Subcommittee

Products: Arterial Travel Time Report

Schedule: June 2010

D. REGIONAL TRANSPORTATION DATA CLEARINGHOUSE

Efficient access to a comprehensive data set containing current and historic data on the characteristics and performance of the region's transportation system is vitally important for transportation planning, air quality analysis, models development, congestion management and project evaluations.

The following activities are proposed for FY 2010:

Collect and process traffic volume data for an enhanced Highway Performance Monitoring System (HPMS) sample for the metropolitan Washington region.

- Prepare a technical report showing the year-to-year change in regional annual average weekday vehicle miles of travel (VMT) and traffic volumes on major segment of the regional highway network based on the enhanced HPMS sample for the TPB modeled area.

- Update Clearinghouse data files with FY08-09 highway and transit network data.

- Update Clearinghouse traffic volume data with AADT volume estimates, hourly directional traffic volume counts and vehicle classification counts received from state DOTs and participating local jurisdiction agencies.

- Update Clearinghouse transit ridership data with data received from WMATA, PRTC, VRE, MTA and local transit agencies including the Ride-On, The Bus, ART, DASH and the Fairfax Connector,

- Add updated Cooperative Forecasting data to the Clearinghouse by TAZ.

- Update Regional Clearinghouse user manuals and documentation.

- Distribute updated Clearinghouse database and documentation to TPB participating agencies.

~~Addition of Time-of-Day Speed Data to Regional Transportation Data Clearinghouse~~

~~Staff will process, summarize, and analyze highway speed data collected by vehicle fleet probe vehicles for major sections of the regional transportation network. This speed data has recently become available to the TPB through the I-95 Corridor Coalition's contract with INRIX Inc. Staff will summarize the available speed data by 30-minute time intervals for non-holiday weekdays and incorporate this data into the Regional Transportation Data Clearinghouse for regional highway network links on I-395, I-295, and DC 295 in DC; and on I-95, I-495, I-295, MD 295, I-70, I-97, US 1, US 50, US 29, MD 4, MD 214, MD 193, MD 198, MD 355, MD 32, MD 175, and MD 100 in Maryland; and on I-95, I-495, I-395, I-66 US 1, VA 123, and VA 234 in Virginia. Supplemental files of the available speed data on regional highway network links by 1-hour time intervals for weekends and holidays will also be produced and maintained.~~

~~The addition of this data to Regional Transportation Data Clearinghouse will enable direct comparison of travel speeds collected by the INRIX probe vehicle with the speeds predicted by the TPB travel demand model by time-of-day and by hour within~~

~~the AM and PM peak periods. The addition of this speed data to the Regional Transportation Data Clearinghouse will also facilitate its use in the Congestion Management Process and serve other potential uses as well.~~

Oversight: Technical Committee

Estimated Cost: ~~$317,900~~ **$267,900**

Product: Technical Report on Change in Annual Average Vehicle Miles of Travel; Updated Clearinghouse Database and Documentation;

Schedule: June 2010

V. TECHNICAL ASSISTANCE

A. DISTRICT OF COLUMBIA

Bicycle Counts

The purpose of this project is to collect counts of bike traffic, along with certain related information, at a series of locations around the District of Columbia. This data will be used to measure bike traffic over time and to measure the effectiveness of new bike lanes and trails.

Cost Estimate ~~$70,000~~ **$55,000**

Product: Bike Counts & Technical Report

Schedule: Data Collection - Spring 2010

Technical Report - June 2010

District of Columbia Ward 6 Ballpark District Curbside Data Collection

The purpose of this project is to conduct an analysis of curbside parking space turnover in Ward 6 around the Washington Nationals Ballpark in southeast and southwest Washington, DC. The area for this project is bounded by: Pennsylvania Avenue, SE; 9th Street, SE; the Frederick Douglass Bridge; and 9th Street, SW. Through this project DDOT will continuously monitor streets within these boundaries during weekdays and weekends, from approximately noon to 10 pm. Data will be collected using license plate reader technology similar to those used by the District of Columbia Department of Public Works (DPW) Traffic Enforcement Division and then analyzed to determine parking space turnover. Collected data will then be processed to determine turnover in each geographic area near the ballpark.

Cost Estimate: ~~$55,800~~ **$15,800**

Product: Files showing turnover by geographic area

Schedule: June 30, 2010

2009 Automobile Travel Time Survey

The purpose of this project is conduct travel time studies along seventeen major arterials in the District of Columbia during the evening rush hour period to gauge system performance in each corridor. This data will be used to compare with data collected from a similar study in 2002 to determine if conditions have improved or deteriorated in the survey corridors. **In addition to the travel time data collection and analysis, an inventory and database of outdoor advertising signs along National Highway System and Federal Aid Primary System roadways will be prepared.**

Cost Estimate: ~~$60,000 carryover from FY 2009~~ **$30,000**

Product: ~~Technical Report~~ **Travel Time and Outdoor Signage Databases**

Schedule ~~January 2010~~ **June 2010**

~~$3,750 of the program for FY 2010 remains to be specified.~~

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE:
$312,300
$110,000 carryover from FY 2009
~~$422,000~~ total **$333,250**

B. MARYLAND

Project Planning / Feasibility Studies

This project provides funding throughout the fiscal year as needed to support the above listed project planning / feasibility study activities, and to continue specific research activities begun in FY `2008, such as analysis of truck travel. 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. Additional project authorizations may occur throughout the fiscal year as priorities dictate.

Cost Estimate: ~~$132,000~~ **$72,000**

Product: Subarea / corridor data

Traffic Impacts

This project is designed to assess on a comprehensive scale the transportation impacts of development, through the analysis of such development at the local, subarea, corridor and regional levels. Different methods and evaluation criteria may be employed at each level of analysis to appropriately consider such impacts, ranging from delay at intersections for localized studies, to travel modeling and aggregate systems level impacts for larger projects. Study elements will be detailed in conjunction with SHA staff.

Cost Estimate: ~~$100,000~~ **$5,000**

Product: Technical reports

Project Evaluation

Maryland SHA requires quantified results on system performance benefits in order to compare the relative merits of individual projects proposed for implementation or for use in refining the Maryland Highway Needs Inventory. Such results will assist in determining priorities among the projects to maximize the benefits of the transportation planning and programming process. Specific level of service, travel delay, and mobility criteria will be defined and estimated at the appropriate local, subarea, corridor and / or regional levels to enable a consistent assessment of specified projects.

Cost Estimate: ~~$40,000~~ **$0**

Product: Technical memo

Monitoring Studies

This work effort is designed: (1) to provide SHA staff with information relating to the effectiveness of ongoing and planned regional congestion monitoring activities in the Maryland portion of the region, and (2) to examine the effectiveness of such programs, including the use of before and after studies (primarily through literature reviews and analysis of existing data rather than through new collection of primary data). TPB staff will periodically brief SHA staff to keep them informed of regional congestion monitoring activities and to discuss possible new initiatives in this area.

Cost Estimate: ~~$50,000~~ **$0**

TOTAL MARYLAND COST ESTIMATE: $524,200

$296,000 carryover from FY 2009

~~$820,200~~ total **$580,200**

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: $8,000

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 their FY 2020 regional and sub-regional planning activities.

B. The miscellaneous services account is also a mechanism established to address requests 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: ~~$84,643~~ **$643**

Schedule: on-going activity

Northern Virginia HOV Facilities Monitoring and Data Collection

VDOT desires a monitoring program of the limited access high-occupancy vehicle (HOV) facilities in Northern Virginia during the fall of fiscal year 2010. 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 Theodore 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 8 PM outbound) at a set of stations along these facilities. These stations will include the major count locations as specified by VDOT.

– 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 2010 in Northern Virginia.

– Staff will continue to research 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:	$315,000 **$255,000**
Products:	Data files transmitted to VDOT
Schedule:	Fall counts completed by Nov. 30, 2009 Spring counts completed by June 15, 2010

~~High Occupancy / Toll (HOT) Lane Traffic Analyses~~

~~As requested by the Commonwealth, COG staff will perform traffic analyses of proposed I-95 / 395 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:~~	~~$ 50,000~~
~~Products:~~	~~Analysis results~~

Schedule: Fall 2009 or Spring 2010

Travel Forecast Model Refinements

Using results from the regional travel demand model and comparing the results with ground counts at two or three specific corridor segments of high interest (to be specified by VDOT), recommend refinements to the model to make it even more valuable to VDOT transportation planners and traffic forecasters in responding to location-specific feasibility questions from top VDOT management or local jurisdictions evaluating potential comprehensive plan changes.

Cost Estimate: $55,000 carryover from FY 2009

Product: study report with recommendations

Schedule: June 2010

Data Mine State of the Commute Survey

Conduct in-depth analysis of the "State of the Commute" survey for the Northern Virginia jurisdictions. Gather input from the local TDM programs to provide data/reports for their specific needs, provide additional cross tabs not provided by the MWCOG reports such as comprehensive demographic analysis, local jurisdictional and regional trend analysis, and recommendations on how to improve local northern Virginia programs as well as the regional Commuter Connections program and products.

Cost Estimate: $ 50,000 carryover from FY 2009

Product: Analysis results and reports

Schedule: June 2010

Phase II --Evaluation of the Metrobus Priority Corridor Network

In the second half of FY 2009 WMATA initiated a bus priority corridor study for the Washington region. Along with DDOT and MDOT, Virginia will contribute to the Phase II WMATA analysis of priority bus corridors and to the identification of beneficial improvements that can be made in those corridors.

Cost Estimate: $33,000

Product: Final report

Schedule: November 2009

~~**Travel Forecast Model ("B-node model") Support**~~

~~**During FY2010, COG staff will begin work support the development and testing of local jurisdiction travel forecast models by overlaying COG's regional model network over the local networks to identify the resulting centroid connectors to code. Staff will then code the centroid connectors. VDOT will compare model results with observed ground counts. This project is anticipated to be completed in FY2011.**~~

~~**Cost Estimate: $39,000**~~

~~**Product: Technical report**~~

~~**Schedule: June 30, 2010**~~

Household Survey Supplemental Analysis

COG staff will analyze the Virginia portion of the 2007/2008 regional household travel survey and compare the results with regional trends, as well as with results from the 1994 regional household travel survey, 1990 and 2000 censuses, and the 2007 American Community Survey.

Cost Estimate: $15,000

Product: Technical report

Schedule: June 30, 2010

NoVA Bike / Pedestrian Count Program

Staff will analyze bicycle / pedestrian data collected from using the Miovision data collection system, evaluate the effectiveness of the Miovision system against other data collection systems, and make a recommendation based on this analysis. This analysis will entail comparing the electronically-recorded data with the video that was recorded simultaneously to determine the accuracy of the data, identifying the important characteristics of the data collected, researching and comparing other viable data collection systems, and recommending a suitable data collection system/approach for VDOT.

Cost Estimate: ~~$30,000~~ $10,000

Product: **Technical report**

Schedule: **June 30, 2010**

TOTAL VIRGINIA COST ESTIMATE: ~~$~~490,643
$105,000 carryover from FY 2009
~~$595,643~~ total **$321,643**

National Capital Region Transportation Planning Board

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M E M O R A N D U M

March 9, 2010

TO: Transportation Planning Board

FROM: Gerald Miller
Director, Program Coordination
Department of Transportation Planning

SUBJECT: FY 2010 Carryover Work Statements and Budgets for the FY 2011 UPWP

Attached are pages excerpted from the draft FY 2011 UPWP with changes and additions shown in **bold** to reflect the carryover funding from FY 2010 to FY 2011. The FY 2011 work elements affected by the FY 2011 carryover funding are as follows:

- 2.I.Metropolitan Area Transportation Operations Coordination Program Planning: Carryover $30,000 which is available due to the delay in starting the planning support activities.

- 3.C, Regional Studies: Carry over $200,000, which will be used to complete the development of a regional network of priority bus corridors building on the TIGER grant with 3- and 5-year phases and for the consultant to complete Phase II of Implementation Guidelines for Prioritizing Bus Transit on Arterials by October 31, 2010.

- 4.C. Models Development: Carryover $150,000, which is available due to the deferment of a consultant-assisted effort to support and facilitate the development of an advanced (tour-based/activity-based) travel demand model. Studies sponsored by the Association of Metropolitan Planning Organizations (AMPO) and the National Cooperative Highway Research Program are on-going to assess the experience and documentation of other MPOs that have experience using these new models. Delaying this effort until FY 2011 will benefit from considering the information collected by these national studies.

- 5.B. Congestion Monitoring and Analysis: Carryover $125,000, which is available due to a delay in starting the second year of collecting data on the enhanced system of arterial highways. These data will be collected in FY 2011.

- 5.D. Regional Transportation Data Clearinghouse: Carryover $50,200, which will fund the project to process, summarize, and analyze highway speed data collected by INRIX Inc vehicle fleet probe vehicles for major sections of the regional transportation network.

- 6. Technical Assistance

  - District of Columbia: Carryover $88,750 for four projects
  - Maryland: Carryover $240,000 for four projects
  - Virginia: Carryover $274,000 for six projects

The total FY 2010 funding to be carried over is $1,157,950

The final version of the FY 2011 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 are shown in Table A.

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

TABLE 1A DRAFT

PROJECT CARRYOVER FROM FY2010 TO FY2011 BY FUNDING SOURCE

WORK ACTIVITY	FY2010 FUNDS	FTA/STATE/ LOCAL	FHWA/STATE/ LOCAL
2. COORDINATION AND PROGRAMS			
I. MATOC PROGRAM PLANNING	**30,000**	6,460	23,540
3. FORECASTING APPLICATIONS			
C. REGIONAL STUDIES	**200,000**	43,069	156,931
4. DEVELOPMENT OF NETWORKS AND MODELS			
C. MODELS DEVELOPMENT	**150,000**	32,302	117,698
5. TRAVEL MONITORING			
B. CONGESTION MONITORING & ANALYSIS	**125,000**	26,918	98,082
D. REGIONAL TRANS DATA CLEARINGHOUSE	**50,200**		
Total	**555,200**	75,371	372,710
6. TECHNICAL ASSISTANCE			
A. District of Columbia	**88,750**	15,423	73,327
B. Maryland	**240,000**	52,875	187,125
C. Virginia	**274,000**	64,710	209,290
Subtotal	**602,750**	133,008	469,742
Grand Total	**1,157,950**	208,380	842,452
TOTAL	**1,157,950**	208,380	842,452

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CARRYOVER WORK STATEMENTS AND FUNDING FOR THE FY 2011 UPWP

2. COORDINATION AND PROGRAMS

I. METROPOLITAN AREA TRANSPORTATION OPERATIONS COORDINATION PROGRAM PLANNING

Under this work task, TPB will provide planning support for the Metropolitan Area Transportation Operations Coordination (MATOC) Program, in conjunction with the MATOC Steering Committee, subcommittees, and partner agencies. This task is the metropolitan transportation planning component of a larger set of MATOC Program activities, including operational and implementation activities, primarily funded outside the UPWP.

Historically, MATOC operational activities have been paid for by a dedicated grant from the SAFETEA-LU federal transportation legislation, and are anticipated to be funded with other operations-eligible sources in the future. As a complement to the externally-funded operations activities noted above, this UPWP task is to provide ongoing TPB staff and consultant planning assistance to the MATOC Program, as a part of the TPB's metropolitan transportation planning activities.

Planning activities under this task include:

- Committee Support: Provide administrative support of MATOC Steering Committee, Executive Committee, and subcommittee meetings, including preparation of agendas and summaries and tracking of action items.

- TPB Reports: Provide regular briefings to the TPB on MATOC Program progress.

- TPB Staff Participation: Provide input and advice to the MATOC Information Systems Subcommittee and Operations Subcommittee.

- Coordinate as necessary with the Management, Operations, and Intelligent Transportation Systems (MOITS) Policy Task Force and MOITS Technical Subcommittee; MATOC focuses on short-range planning issues for traffic management, and MOITS focuses on mid-to-long-range planning for traffic management.

- Outreach: Coordinate the work of MATOC with other organizations, for example, with public safety or emergency management groups and media representatives; prepare articles, presentations and brochures to convey MATOC concepts, plans, and accomplishments. Also coordinate with the COG Regional Emergency Support Function # 1 - Emergency Transportation Committee.

- Implementation Planning: Prepare implementation plans describing the work

required to reach defined stages of MATOC operating capability, including expert input from MATOC subcommittees.

- Financial and Legal Analysis: Support discussion of the identification of funding sources, estimation of funding needs, as well as preparation of legal agreement materials that provide for the long term sustainability of MATOC.

- Performance Measurement: Support MATOC committee discussions of assessing progress against MATOC's defined goals and objectives.

- Risk Management: Identify and monitor major risks to progress and identify actions to be taken in order to avoid incurring risks or mitigating their consequences.

- Supporting Materials: Develop supporting or informational materials for the above activities as necessary.

Oversight:	MATOC Steering Committee; MOITS Policy Task Force and Technical Subcommittee
Cost Estimate:	$120,000 **$30,000 carryover from FY 2011** $150,000 total
Products:	Agendas, minutes, summaries, and outreach materials as needed; white paper(s) on technical issues as needed; regular briefings and reports to the TPB, MATOC committees, and the MOITS Policy Task Force and Technical Subcommittee.
Schedule	Monthly

3. FORECASTING APPLICATIONS

C. REGIONAL STUDIES

Activities Prior to and During FY 2010

(1) CLRP Aspirations Scenario

In September 2007, the TPB Scenario Task Force was established to provide policy-level stewardship for the Regional Mobility and Accessibility Scenario (RMAS) Study and related TPB activities, including consideration of opportunities for integration of the study findings into TPB planning processes and initiatives. The "CLRP Aspirations" Scenario was developed during FY 2009 under the guidance of the TPB Scenario Task Force. It is

an integrated land use and transportation scenario for 2030 building on the key results of the five TPB scenarios analyzed earlier under the RMAS Study. It includes a regional high-quality bus rapid (BRT) network operating on an extensive network of variably priced lanes. In FY 2010, this scenario was analyzed, updated and documented.

(2) What Would It Take? Scenario

In FY 2009, the "What Would It Take?" Scenario was developed to assess three types of strategies: increasing fuel efficiency, reducing the carbon-intensity of fuel, and improving travel efficiency, as well as combinations of strategies that would be necessary to achieve significant reductions in CO2 emissions reductions by 2020 and 2030. In FY 2010, this scenario was analyzed and documented. In FY 2011, further work to analyze strategies and combinations to reduce mobile CO2 emissions will continue under the 3. B. Mobile Emissions Analysis work activity.

(3) TIGER Grant Application and Follow-on Activities

Through an extensive process of regional coordination and collaboration, a regional package of priority bus corridors and other related projects was developed for inclusion in the regional TIGER grant application submitted to the USDOT in September 2009. In February 2010, USDOT awarded $58.8 million in TIGER funds to implement a regional package of priority bus corridors. Following on from this TIGER grant, and the TPB's Regional Priority Bus Conference held in June 2009, consultant work was initiated in Spring 2010 to develop a set of implementation guidelines for prioritizing bus transit on arterials in the Washington region. These guidelines are scheduled to be completed in Fall 2010.

In Spring 2010, work began to build on the TIGER successful grant application process to develop a regional network of priority bus corridors on arterial roadways with phases for 3- and 5-year implementation beginning in 2010. This regional network will expand the initial network funded by the TIGER grant to include additional state, local and transit operator priorities. The network of priority bus corridors will be developed through inter-agency coordination and will focus on complementing the Metrorail system, drawing from the WMATA Priority Corridor Network (PCN) and the CLRP Aspirations Scenario's regional network of rapid/express bus on managed lanes. The costs and benefits of implementing the 3- and 5-year phases of the regional priority corridor network will be assessed using the methodology developed for the TIGER grant. Maps and advanced visualizations of this regional arterial priority corridor network will be developed to assist in communicating the benefits of the regional system to decision-makers, the public and developers.

Activities Proposed for FY 2011

The following activities are proposed for FY 2011:

- Based upon a review of the projects, land use forecasts and performance of the

2010 CLRP, revise and update the CLRP Aspirations scenario looking to 2040 to reflect an additional decade of growth.

- Complete **Phase II** of the development of Implementation Guidelines for Prioritizing Bus Transit on Arterials in the Washington region

- Complete development of Regional Arterial Corridor Network with 3- and 5-year phases, including visualization and cost/benefit analysis

Oversight:	TPB Scenario Study Task Force
Cost Estimate:	$315,800 **$200,000 carryover from FY 2011** $515,800 total
Products:	Analysis of updated CLRP Aspirations scenario reflecting public feedback and looking to 2040 Implementation Guidelines for Prioritizing Bus Transit on Arterials in the Washington region **(Complete Phase II.)** Regional Arterial Corridor Network with 3- and 5-year phases **(Complete work initiated in FY 2010.)**
Schedule:	June 2011 - Analysis of updated CLRP Aspirations scenario Fall 2010 - Implementation Guidelines for Prioritizing Bus Transit on Arterials in the Washington region, Spring 2011 - Regional Arterial Corridor Network with 3- and 5-year phases

4. DEVELOPMENT OF NETWORKS AND MODELS

C. MODELS DEVELOPMENT

The Models Development program functions to improve the TPB's travel demand forecasting practice on a continuing basis. The program encompasses short-term improvements to the TPB's existing travel model which can be implemented in short order, as well as longer term improvements that may require several years to become operational. Improvements to the TPB's travel modeling methods are identified on the basis of recommendations from periodic reviews, from special needs identified by the

TPB, or from advances emerging from the research community. The Models Development unit supports the TPB's currently adopted regional travel forecasting process model known as the Version 2.2 model. The unit has more recently been working on the development of more refined model as Version 2.3.

During FY 2009, a nested-logit mode choice model and a revised truck model were incorporated into the Version 2.3 travel model on the 2,191-Transportation Analysis Zone (TAZ) system. With the release of the 2007/2008 Household Travel Survey and the new 3,722-TAZ zone system, it was decided to re-calibrate and re-validate the Version 2.3 travel model on the new zone system. This re-calibration process began during FY 2010, with effort focusing on preparatory work needed to develop calibration files, including collection and cleaning of observed data, including the 2007 Household Travel Survey and the 2007 Metrorail Passenger Survey. Other activities conducted in FY 2010 included the use of new geodatabase and application (TPBMAN) to edit and maintain travel model networks, the development of network building and network processing routines to support the Version 2.3 model, and obtaining observed travel time data on freeways (collected by INRIX) for use in examining model performance.

In FY 2011, the Models Development team will complete the calibration, validation, and testing of the Version 2.3 travel on the 3,722 TAZ system by the late fall (ca. November 2010). As part of the validation work, staff will utilize a sample of INRIX-supplied travel speed data with which to compare modeling results. After November 2010, staff will begin toward combining the Version 2.3 model outputs with the EPA mandated MOVES mobile emissions model, in accordance with federal requirements.

The Models Development unit will also support maintenance activities which will promote consensus on modeling issues such as staffing support of the Travel Forecasting Subcommittee (TFS). The TFS provides direct oversight to the TPB's development activities and serves as the primary forum for local transportation agencies and consultants to discuss travel modeling needs and improvements.

Research and information sharing activities are necessary to ensure that the best practices are recognized and to keep TPB staff abreast of emerging models development areas. In recent years, TPB has retained a consultant to perform a scan of best modeling practice across the U.S. and to provide focused research on technical areas relating to travel modeling practice. This consultant-assisted effort will be maintained during FY 2011. The TPB has played a leadership role in the establishment of a national technical committee comprised of MPO modeling practitioners across the U.S. in cooperation with the Association of Metropolitan Planning Organizations (AMPO). The committee, known as the AMPO Travel Modeling Work Group, has been established to promote information sharing regarding travel forecasting methods being used in practice and to develop guidelines for acceptable practice. TPB will continue its participation with the AMPO committee during FY 2011. Finally, TPB staff will continue to participating in relevant organizations and activities that promote understanding regarding best practices, such as the Transportation Research Board (TRB), the Travel Modeling Improvement

Program (TMIP), the Federal Transit Administration (FTA) guidelines on modeling for New Starts, the Institute of Transportation Engineers (ITE), Citilabs and other vendors of travel demand forecasting software.

During FY 2011, TPB staff plans to initiate a multi-year consultant contract to begin the development of more advanced travel forecasting methodology for the Washington, D.C. region. Advanced methods emerging from research (i.e., tour-based or activity-based travel models) have been promoted by the academic community but have not yet been broadly embraced by MPOs. An incremental development approach will be taken, paying attention to the experiences of the few agencies who have gained experience in the development and application of advanced travel models.

Oversight:	Travel Forecasting Subcommittee
Cost Estimate:	$1,071,200 **$150,000 carryover from FY 2010** $1,221,200 total
Products:	Updated travel models; documentation of models development activities; and recommendations for continued updating of the travel demand modeling process.

5. TRAVEL MONITORING

B. CONGESTION MONITORING AND ANALYSIS

This program addresses monitoring efforts on both the freeway system and the arterial highway system. For all freeways and limited access highways in the region, aerial surveys are conducted on a periodic basis to monitor the performance of the system during: 1) peak periods, and 2) midday during the week, and on weekends. AM and PM peak period vehicular density data on the freeway / limited access facilities will be collected during Spring 2011. Data analysis and the final report will be completed in the following fiscal year. This survey is conducted every three years; it will be the seventh such survey in a series dating back to 1993.

Performance of the arterial highway system is monitored each year through the conduct of travel time/speed runs on a sample of arterial roadways, primarily from the National Highway System. This system was enhanced in FY 2009 from 363 to 430 miles of arterial highways in the region. Each year approximately one third of the sample roadways are monitored; data are collected and are subsequently analyzed and reported by the end of the fiscal year. **Staff will analyze the 2010 arterial travel time data, collected in the second year of the enhanced data collection effort, and prepare a report**

documenting the results. Staff will also compare the 2010 travel time results with data collected in 2004 and 2007. In FY 2011, the third and final year of the enhanced system of routes will be completed. Staff will compare results with 2005 and 2008 findings, and will report changes to the system through time.

Oversight:	Travel Forecasting Subcommittee
Estimated Cost:	$ 350,000 **$125,000 carryover from FY 2010** $447,000 total
Products:	Electronic Files of Spring 2011 Freeway Survey Data FY 2011 Arterial Highway System Performance Report
Schedule:	June 2011

D. REGIONAL TRANSPORTATION DATA CLEARINGHOUSE

Efficient access to a comprehensive data set containing current and historic data on the characteristics and performance of the region's transportation system is vitally important for transportation planning, air quality analysis, models development, congestion management and project evaluations. Under this work item state will continue to work with local, state, WMATA and other regional agencies to transfer data to and from the Regional Transportation Data Clearinghouse and to update the Data Clearinghouse with updated highway and transit performance data as these data become available.

The following work activities are proposed for FY 2011:

- Update Clearinghouse data files with FY09-10 highway and transit network data.
- Update Clearinghouse traffic volume data with AADT and AAWDT volume estimates, hourly directional traffic volume counts and vehicle classification counts received from state DOTs and participating local jurisdiction agencies.
- Update Clearinghouse transit ridership data with data received from WMATA, PRTC, VRE, MTA and local transit agencies including the Ride-On, The Bus, ART, DASH and the Fairfax Connector.
- Add newly collected and processed freeway and arterial road speed and level of service (LOS) data to the Regional Transportation Data Clearinghouse network.
- Add updated Cooperative Forecasting data to the Clearinghouse by TAZ.
- Update Regional Clearinghouse user manuals and documentation.

- Create a web-based application to display Regional Transportation Clearinghouse highway link AADT and AAWDT traffic volumes on satellite/aerial photography imagery with zooming user interface.

- Create a prototype ArcGIS server-based application to distribute Regional Transportation Clearinghouse Data to TPB participating agencies via a lightweight web browser application.

Addition of Time of Day Speed Data to Regional Transportation Data Clearinghouse

Staff will process, summarize, and analyze highway speed data collected by vehicle fleet probe vehicles for major sections of the regional transportation network. This speed data has recently become available to the TPB through the I-95 Corridor Coalition's contract with INRIX Inc. Staff will summarize the available speed data by 30-minute time intervals for non-holiday weekdays and incorporate this data into the Regional Transportation Data Clearinghouse for regional highway network links on I-395, I-295, and DC 295 in DC; and on I-95, I-495, I-295, MD 295, I-70, I-97, US 1, US 50, US 29, MD 4, MD 214, MD 193, MD 198, MD 355, MD 32, MD 175, and MD 100 in Maryland; and on I-95, I-495, I-395, I-66 US 1, VA 123, and VA 234 in Virginia. Supplemental files of the available speed data on regional highway network links by 1-hour time intervals for weekends and holidays will also be produced and maintained.

The addition of this data to Regional Transportation Data Clearinghouse will enable direct comparison of travel speeds collected by the INRIX probe vehicle with the speeds predicted by the TPB travel demand model by time-of-day and by hour within the AM and PM peak periods. The addition of this speed data to the Regional Transportation Data Clearinghouse will also facilitate its use in the Congestion Management Process and serve other potential uses as well.

Oversight:	Technical Committee
Estimated Cost:	$317,900 **+$50,200 carryover from FY 2010** $368,100 total
Product:	Updated Clearinghouse Database and Documentation; Web Interface to Access Clearinghouse Data
Schedule:	June 2011

6. TECHNICAL ASSISTANCE

A. DISTRICT OF COLUMBIA

Program Development, Data Requests and Miscellaneous Services

This project is established to account for staff time spent in developing scopes of work for requested projects and in administering the resulting work program throughout the year. Work activities involve meeting with DDOT staff to discuss proposed projects, drafting and finalizing work statements and tasks, creating project accounts when authorized, and progress reporting throughout the projects.

Additionally, this project establishes an account to address requests from DDOT which are too small or too short-lived to warrant separate scopes of work. Requests may include staff time to participate in technical review committees and task forces and execution of small technical studies.

Cost Estimate:	$22,300 **$3,750 carryover from FY 2010** $26,050 total
Product:	specific scopes of work
Schedule:	on-going activity

Bicycle Counts

The purpose of this project is to collect counts of bike traffic, along with certain related information, at a series of locations around the District of Columbia. This data will be used to measure bike traffic over time and to measure the effectiveness of new bike lanes and trails.

Cost Estimate:	$45,000 **$15,000 carryover from FY 2010** $60,000 total
Product:	Bike Counts & Technical Report
Schedule:	Data Collection - Spring 2011 Technical Report - June 2011

Curbside Data Collection

The purpose of this project is to conduct an analysis of curbside parking space occupancy and turnover rates within designated sections of the District of Columbia. During this fiscal year data will be collected in: (i) Columbia Heights in Ward 1 in the area bounded by Monroe Street, NW, 11th Street, NW, Girard Street, NW and 16th Street, NW; and (ii) the Ballpark District in Ward 6 around the Washington Nationals Ballpark in southeast and southwest Washington, DC. The area for this project is bounded by: Pennsylvania Avenue, SE; 9th Street, SE; the Frederick Douglass Bridge; and 9th Street, SW; and the Georgetown Historic District in Ward 2 in the area bounded by Whitehaven Parkway, K Street, NW/Water Street, NW/Whitehurst Freeway, 29th Street, NW, and 35th Street, NW. Through this project DDOT will continuously monitor streets within these boundaries during weekdays and weekends, from approximately noon to 10 pm. Data will be collected using license plate reader technology similar to those used by the District of Columbia Department of Public Works (DPW) Parking Enforcement Management Administration (PEMA) and then analyzed to determine parking space occupancy and turnover rates.

Cost Estimate:	$20,000 **$40,000 carryover from FY 2010** $60,000 total
Product:	Files showing occupancy and turnover rates by Geographic area and Technical Report
Schedule:	October 2010

2009 Automobile Travel Time Survey -- Phase II

The purpose of this project is conduct travel time studies along seventeen major arterials in the District of Columbia during the evening rush hour period to gauge system performance in each corridor. This data will be used to compare with data collected from a similar study in 2002 to determine if conditions have improved or deteriorated in the survey corridors.

Cost Estimate:	**$30,000 carryover from FY 2010**
Product:	Technical Report
Schedule	December 2010

TOTAL DISTRICT OF COLUMBIA COST ESTIMATE:

$312,300
$88,750 carryover from FY 2010
$401,050 total

B. MARYLAND

Project Planning / Feasibility Studies

This project provides funding throughout the fiscal year as needed to support the above listed project planning / feasibility study activities, and to continue specific research activities begun in FY2008, such as analysis of truck travel. Work efforts may supplement ongoing corridor / subarea studies, such as the above-listed 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. Additional project authorizations may occur throughout the fiscal year as priorities dictate.

Cost Estimate:	$100,000 **$60,000 carryover from FY 2010** $160,000 total
Product:	Facility / Subarea / Corridor data
Schedule:	June 2011

Traffic Impacts

This project is designed to assess on a comprehensive scale the transportation impacts of development, through the analysis of such development at the local, subarea, corridor and regional levels. Different methods and evaluation criteria may be employed at each level of analysis to appropriately consider such impacts, ranging from delay at intersections for localized studies, to travel modeling and aggregate systems level impacts for larger projects. Study elements will be detailed in conjunction with SHA staff.

Cost Estimate:	**$95,000 carryover from FY 2010**
Product:	**Technical reports**

Project Evaluation

Maryland SHA requires quantified results on system performance benefits in order to compare the relative merits of individual projects proposed for implementation or for use in refining the Maryland Highway Needs Inventory. Such results will assist in determining priorities among the projects to maximize the benefits of the transportation planning and programming process. Specific level of service, travel delay, and mobility criteria will be defined and estimated at the appropriate local, subarea, corridor and / or regional levels to enable a consistent assessment of

specified projects.

Cost Estimate:	**$40,000 carryover from FY 2010**
Product:	**Technical memo**
Schedule:	**June 2011**

Monitoring Studies

This work effort is designed: (1) to provide SHA staff with information relating to the effectiveness of ongoing and planned regional congestion monitoring activities in the Maryland portion of the region, and (2) to examine the effectiveness of such programs, including the use of before and after studies (primarily through literature reviews and analysis of existing data rather than through new collection of primary data). TPB staff will periodically brief SHA staff to keep them informed of regional congestion monitoring activities and to discuss possible new initiatives in this area.

Cost Estimate: **$45,000 carryover from FY 2010**

TOTAL MARYLAND COST ESTIMATE: $575,500
$240,000 carryover from FY 2010

$815,500 total

C. VIRGINIA

Travel Forecast Model ("B-node model") Support

Support the development and testing of local jurisdiction travel forecast models by overlaying COG's regional model network over the local networks to identify the resulting centroid connectors to code, and then code the centroid connectors. VDOT will compare model results with observed ground counts.

Cost Estimate:	$31,000 **$39,000 carryover from FY 2010** $70,000 total
Product:	study report with recommendations
Schedule:	complete work by June 30, 2011

Data Mine State of the Commute Survey

Conduct in-depth analysis of the "State of the Commute" survey for the Northern Virginia jurisdictions. Gather input from the local TDM programs to provide data/reports for their specific needs, provide additional cross tabs not provided by the MWCOG reports such as comprehensive demographic analysis, local jurisdictional and regional trend analysis, and recommendations on how to improve local northern Virginia programs as well as the regional Commuter Connections program and products.

Cost Estimate: **$ 50,000 carryover from FY 2010**

Product: **Analysis results and reports**

Schedule: **June 2010**

NoVA Bike / Pedestrian Count Program

Perform bicycle and pedestrian traffic data collection at up to 50 locations identified by VDOT throughout Northern Va. using the latest traffic counting technology (based on analysis work conducted in FY10) and preparation of a summary report. The 12-hour bicycle and pedestrian counts at designated locations will be separate spreadsheets showing pedestrian and bicycle crossings in 15-minute intervals for all counted locations (and DVDs showing the video recording of the trail / intersection activity if such technology is used). Any unusual incidents or pedestrian / bicycle behavior will be noted with times on a separate sheet. The counts shall be performed in the spring and early summer, but not earlier than mid March. 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: $40,000
$20,000 carryover from FY 2010
$60,000 total

Product: Data files and GIS map

Schedule: June 30, 2011

TransAction 2040 Plan Support

The Northern Virginia Transportation Authority (NVTA) is updating its regional long range transportation plan (TransAction 2030). While consultant support to local jurisdiction technical staff will be available, there may be specific tasks on which COG staff support

may be sought. Examples of such tasks are attending product output meetings with the consultant team and the TransAction 2040 Subcommittee, attending public workshops, providing input on draft documents, and providing modeling support (primarily regarding the TPB regional conformity model). These tasks will be coordinated with COG staff as they are identified.

Cost Estimate:	$ 50,000 **$14,000 carryover from FY 2010** $64,000 total
Product:	Technical support as requested
Schedule:	Completion by June 30, 2011

High Occupancy / Toll (HOT) Lane Traffic Analyses

As requested by the Commonwealth, COG staff will perform traffic analyses of proposed I-95 / 395 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:	**$ 50,000 carryover from FY 2010**
Products:	**Analysis results**
Schedule:	**Fall 2010 or Spring 2011**

Travel Forecast Model Refinements

Using results from the regional travel demand model and comparing the results with ground counts at two or three specific corridor segments of high interest (to be specified by VDOT), recommend refinements to the model to make it even more valuable to VDOT transportation planners and traffic forecasters in responding to location-specific feasibility questions from top VDOT management or local jurisdictions evaluating potential comprehensive plan changes.

Cost Estimate:	**$55,000 carryover from FY 2010**
Product:	**study report with recommendations**
Schedule:	**June 2011**

Other tasks yet to be defined

Other tasks are anticipated that have not yet been fully defined. These include tasks that may be desired by DRPT or VDOT staff. The tasks will be scoped in advance of the TPB adoption of the FY11 UPWP.

Cost Estimate:	$ 29,000 **$46,000 carryover from FY 2010** $75,000 total
Product:	Files, summary reports, data as appropriate
Schedule:	Completion by June 30, 2011

TOTAL VIRGINIA COST ESTIMATE:	$490,600 **$274,000 carryover from FY 2010** $764,600 total