

# Appendices

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Appendix A: List of AWI Planning and Environmental Efforts

Appendix B: Required Environmental Documentation for AWI Projects

Appendix C: AWI Mobility Study



# Appendix A

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## List of AWI Planning and Environmental Efforts

The development of the Master Plan included research on the previous planning and environmental efforts throughout the AWI area. Because the AWI is an interagency effort, the documents listed below were prepared by various District entities. DDOT uses these documents as a starting point for further project stages such as design and construction.

Pertinent information from the planning and environmental documents was distilled into the list shown below. Only those projects with final plans or studies are listed.

### Documents Defining the AWI Vision

**Anacostia Waterfront Initiative Memorandum of Understanding (MOU)****March 2000**

Signed on March 22, 2000, The MOU Agreement signed by 20 Federal and District agencies, pledged their cooperation to transform the Anacostia River from the city's forgotten river into a vibrant economic corridor that could rival any urban waterfront in the world.

**Anacostia Waterfront Initiative Framework Plan, DCOP****November 2003**

The AWI Framework Plan identified five major themes to guide development and revitalization efforts in the Anacostia Waterfront area, and identified eight neighborhoods, including the South Capitol Corridor, to be studied in greater detail.

## South Capitol Street Corridor Documents

**South Capitol Street Urban Design Study, NCPC  
January 2003**

This South Capitol Street and Urban Design Study was a cooperative effort between the District's Office of Planning and the National Capital Planning Commission. It provides fundamental information regarding design, open space, and land use that was used in a larger effort, the South Capitol Street/Gateway Improvement Study.

**South Capitol Gateway and Corridor Improvement Study, DDOT  
Septmeber 2003**

This study proposed that South Capitol Street be transformed into an urban boulevard that would accommodate transit, pedestrians, and cyclists. Recommended a new Frederick Douglass Bridge on a more southerly alignment.

**South Capitol Street Report by Urban Land Institute (ULI) Advisory Panel, NCPC & DCOP  
Novemeber 2003**

This document summarized the specific land use, transportation, and urban design recommendations for the South Capitol Street Corridor and pointed out the need to strengthen physical connections between neighborhoods and activity centers.

**South Capitol Gateway and Anacostia Access Studies, DDOT  
October 2004**

These studies further developed the recommendations of the South Capitol Gateway and Corridor Improvement Study and stressed the need for replacement of the Frederick Douglass Bridge and redesign of the I-295/South Capitol Street/Suitland Parkway interchange.

**South Capitol Street Task Force Recommendations, NCPC  
January 2005**

These recommendations reexamined the South Capitol Corridor and recommended a traffic oval at South Capitol and Potomac with a major memorial/open space at that location. Prescribed a more urban character for South Capitol Street north of M Street with smaller parcels and a larger scale south of M Street with a center median and limited cross streets.

**Frederick Douglass Memorial Bridge Alignment Study  
December 2005**

This study considered the technical constraints of the proposed alignments for the new Frederick Douglass Memorial Bridge. This study will be a technical report to the South Capitol Street EIS.

**Ballpark District Development Strategy Plan, DCOP & AWC  
September 2006**

The Ballpark District Development Strategy Plan created a vision for development of the areas surrounding the Washington Nationals Ballpark site to the east of South Capitol Street. Analyzed the level and feasibility of various development types.

## Middle Anacostia Crossings Corridor Documents

### **Middle Anacostia River Crossings Transportation Study, DDOT July 2005**

As part of the Anacostia Waterfront Initiative, a transportation study was conducted for the Middle Anacostia area of the District of Columbia. The study evaluated traffic and safety issues and considered improvement options.

### **11<sup>th</sup> Street Bridges EIS, DDOT October 2007**

Both the Draft EIS and the Final EIS documents describe the environmental impacts associated with the reconstruction and reconfiguration of the interchange of the Southeast/Southwest Freeway and the Anacostia Freeway over the Anacostia River in Southeast Washington, DC. Federal Highway Administration (FHWA) and District Department of Transportation (DDOT) sponsored the project and prepared the EIS.

## Southwest Waterfront Documents

### **Southwest Waterfront Plan, OP/NCPC February 2003**

The Southwest Waterfront Plan is a redevelopment framework for nearly 50 acres of waterfront in the Southwest quadrant of Washington. The plan envisions replacing parking lots and underutilized streets with a mix of public plazas, cultural venues, restaurants, shops and residences to create a vibrant neighborhood and regional waterfront destination.

### **Fourth Street SW Transportation Study, DDOT March 2003**

The District of Columbia Department Transportation (DDOT) conducted a study that evaluated the potential impacts of proposed redevelopment at Waterside Mall.

### **Southwest Waterfront- Maine Access/ Improvements Study, DDOT October 2004**

This study considered future conditions on Maine Avenue, without Water Street and with a new signalized entrance to the Fish Market. Water Street is planned to be removed as part of future development under the Anacostia Waterfront Initiative (AWI). A planning horizon of ten years was used in assessing effects from future developments that will generate more trips along Maine Avenue.

### **Anacostia Waterfront Initiative Framework Plan, DCOP November 2003**

The AWI Framework Plan identified five major themes to guide development and revitalization efforts in the Anacostia Waterfront area, and identified eight neighborhoods, including the South Capitol Corridor, to be studied in greater detail.

## Kenilworth Avenue Corridor Documents

### **Kenilworth Avenue Corridor Study, DDOT August 2006**

The Kenilworth Avenue Corridor Study was the third major transportation study by the District Department of Transportation (DDOT) and looked at transportation improvements for the Anacostia Waterfront Initiative (AWI) area. This study examined the section of Kenilworth Avenue between Pennsylvania Avenue and Eastern Avenue and suggested ways for the facility to provide a safer, more pedestrian friendly, atmosphere, create a more urban setting for Kenilworth Avenue, and improve access for local neighborhoods.

## Anacostia Riverwalk Documents

### **Anacostia Riverwalk Trail Environmental Assessment (EA), National Park Service December 2005**

This Environmental Assessment was prepared in coordination with DDOT to assist the National Park Service in identifying and evaluating the potential environmental impacts and benefits of the Anacostia Riverwalk. A public meeting was held regarding the Riverwalk EA on January 16, 2005.

## Other Documents Relevant to the AWI Area

### **Extending the Legacy: Planning America's Capital for the 21st Century, NCPC September 1996**

This study presented a revised vision for the District's Monumental Core, including the South Capitol Street Corridor. Envisioned "a bustling mix of federal, local, and private uses" for South Capitol Street, and a major public building or monument at the point where the corridor meets the river.

### **Hill East/Reservation 13 Master Plan, OP March 2002**

The plan for the Hill East waterfront envisions transforming Reservation 13 from an isolated campus to a mixed-use waterfront neighborhood. By extending neighborhood-scaled streets, the site can accommodate diverse uses including health care, civic, residential, educational, recreational, community and other public uses along with unrestricted access to the Anacostia waterfront.

### **DC Transit Alternative Analysis-Anacostia Streetcar Study, WMATA/DDOT January 2004**

The D.C. Alternative Analysis/Anacostia Corridor Demonstration Project was an 18-month joint study between WMATA and DDOT to develop a locally preferred transit investment for the District's highest priority corridors. The study analyzed the benefits, costs and impacts of light rail or bus rapid transit in four District corridors, and developed an implementation and phasing plan for the system.

### **AWI Poplar Point Target Area Master Plan, DCOP June 2005**

The plan called for community and culturally focused development near the Anacostia Metro Station and mixed-use development along Howard Road.

**DC Comprehensive Plan, DCOP**

**March 2006**

This major revision of the District Elements of the comprehensive plan described major changes to the land use for the AWI area.

**Capitol Hill Transportation Study, DDOT**

**August 2006**

In response to citizen concerns about the speed and volume of vehicular traffic (including trucks) on streets in the Capitol Hill area, DDOT carried out the Capitol Hill Transportation Study. This study examined existing and projected transportation conditions within the study area, and suggested short-, mid-, and long-term recommendations for transportation management and infrastructure improvements.

**H Street NE Corridor Transportation Study, DDOT**

**December 2006**

The H Street NE Corridor Transportation Study focused on ways to improve transit, pedestrian facilities, parking, and reduce vehicular impacts on the corridor. This study was the foundation for improvements to the streetscape along H Street, including the sidewalks, lighting, trees and other elements.

**New York Avenue Corridor Study, DDOT/OP**

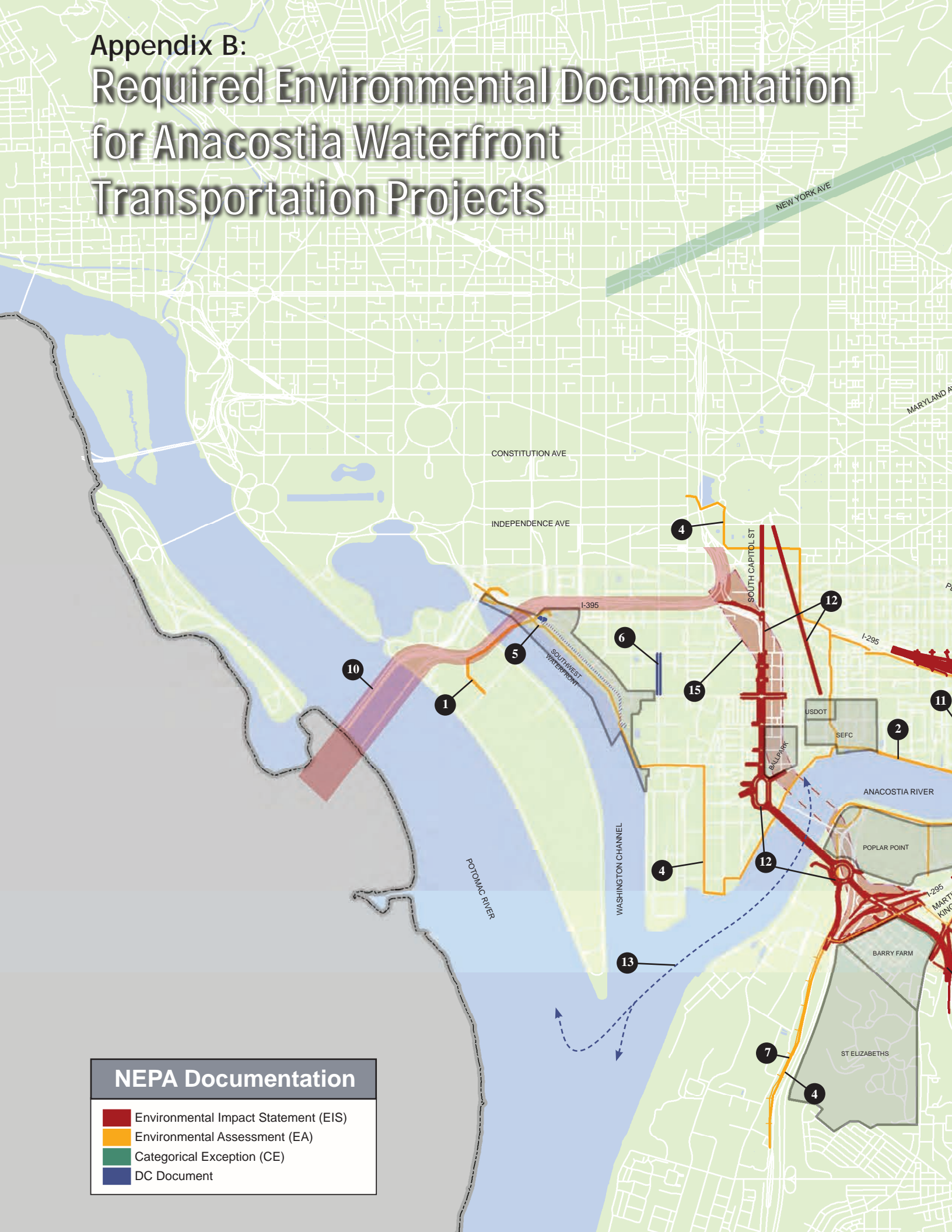
**August 2007**

The New York Avenue Corridor, from the District of Columbia / Prince George's County line to 7<sup>th</sup> Street, NW, has been identified in the District's strategic transportation plan as a potential multimodal and intermodal corridor. This study outlines the plan for the Corridor.



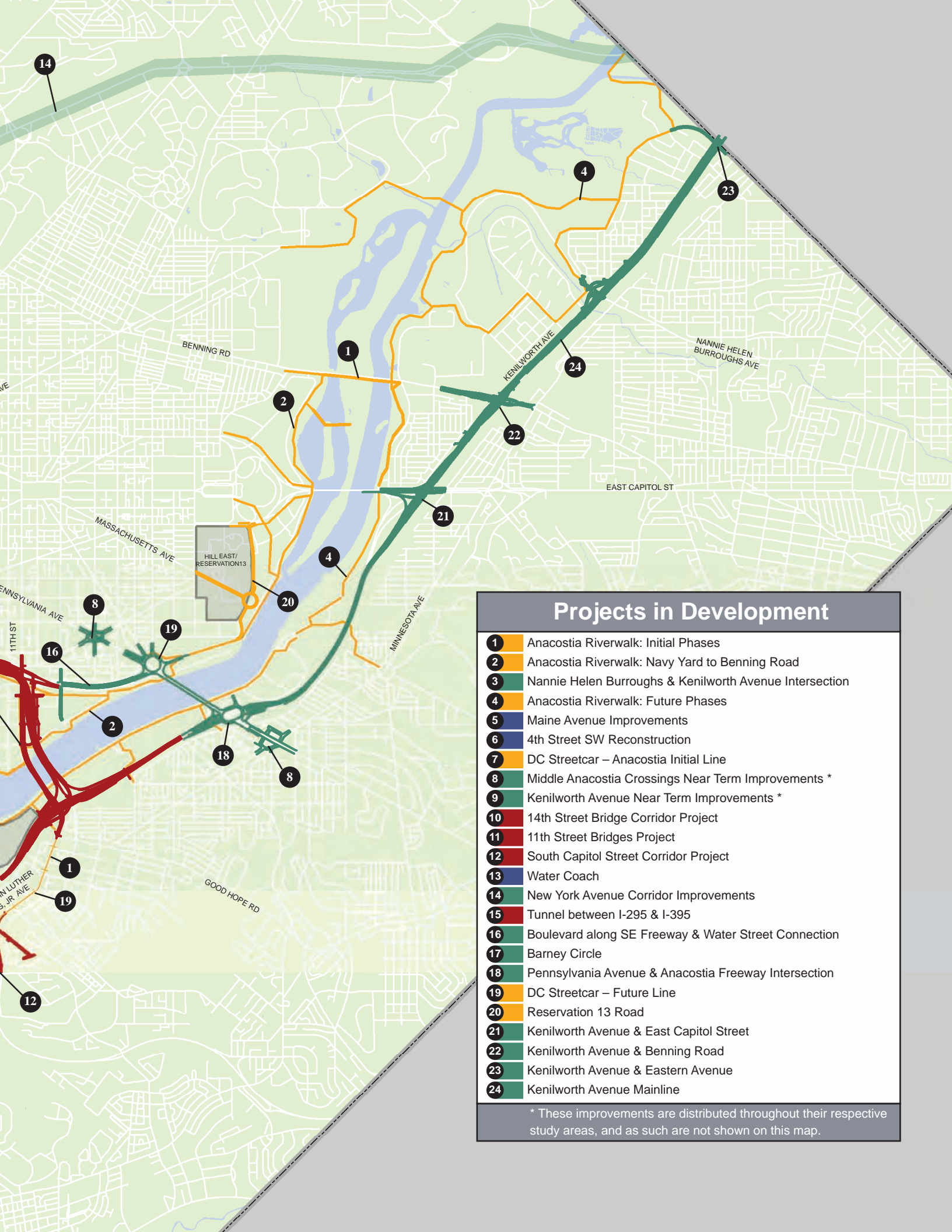


# Appendix B: Required Environmental Documentation for Anacostia Waterfront Transportation Projects



**NEPA Documentation**

- Environmental Impact Statement (EIS)
- Environmental Assessment (EA)
- Categorical Exception (CE)
- DC Document



## Projects in Development

- 1** Anacostia Riverwalk: Initial Phases
- 2** Anacostia Riverwalk: Navy Yard to Benning Road
- 3** Nannie Helen Burroughs & Kenilworth Avenue Intersection
- 4** Anacostia Riverwalk: Future Phases
- 5** Maine Avenue Improvements
- 6** 4th Street SW Reconstruction
- 7** DC Streetcar – Anacostia Initial Line
- 8** Middle Anacostia Crossings Near Term Improvements \*
- 9** Kenilworth Avenue Near Term Improvements \*
- 10** 14th Street Bridge Corridor Project
- 11** 11th Street Bridges Project
- 12** South Capitol Street Corridor Project
- 13** Water Coach
- 14** New York Avenue Corridor Improvements
- 15** Tunnel between I-295 & I-395
- 16** Boulevard along SE Freeway & Water Street Connection
- 17** Barney Circle
- 18** Pennsylvania Avenue & Anacostia Freeway Intersection
- 19** DC Streetcar – Future Line
- 20** Reservation 13 Road
- 21** Kenilworth Avenue & East Capitol Street
- 22** Kenilworth Avenue & Benning Road
- 23** Kenilworth Avenue & Eastern Avenue
- 24** Kenilworth Avenue Mainline

\* These improvements are distributed throughout their respective study areas, and as such are not shown on this map.

# Appendix C

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## Appendix C - 2005 Anacostia Waterfront Transportation Mobility Study

### *Summary*

Public agencies draw on a variety of data sources and must coordinate with one another to ensure that their projections for the future make sense. Just like every other major metropolitan area, the District of Columbia carries out such planning and coordinating among agencies. To be certain that the plans and transportation improvements under development for the Anacostia Waterfront area correspond to what the transportation network can support, the District Department of Transportation (DDOT) and the District Office of Planning (OP) have both relied on the regional planning body, the Metropolitan Washington Council of Government's (MWCOC) regional travel demand model and cooperative land use forecasts.

This report summarizes the activities of DDOT and OP and lays out how these agencies coordinate with one another in the process of developing the future land use and transportation infrastructure for the District. Both agencies supply MWCOC with information, and use its land use and transportation projections as a test of their projects. Although these processes are logical activities, carried out by agency professionals daily, describing the various permutations of travel demand models and the system for determining future land use involves laying out many, somewhat convoluted, steps. The Mobility Study should not only clearly depict how a tremendous amount of data and information are organized to develop a sensible picture of the future population, but also show that the future population is well served by the proposed transportation network.

This report is composed of five sections that explain facets of the land use and transportation planning process and how modeling activities served to inform and confirm transportation projects in the AWI:

Section 1 provides a few more background details for the mobility study. The goal of the study is to reassure the public that the planned transportation improvements do meet future demand.

Section 2 discusses the transportation planning process and land use forecasts developed by MWCOC. MWCOC uses a four-step, trip-based model to determine area travel demand on the regional transportation system. As an input to the travel demand model, MWCOC's land-use forecasts rely on information gathered from local planners, supplied through the land use planning process, to determine future households, population and employment. Since the MWCOC model was used by DDOT in its planning studies, an explanation of the basic workings of the MWCOC model is important to gaining an understanding of the process.

Section 3 summarizes the Office of Planning's (OP) role in the development process, specifically how they track projects and estimate future land use, and how they supply that information to other agencies, including MWCOC. The section also describes the list of development projects in the City's pipeline.

Section 4 discusses the planning process for each of DDOT's transportation planning studies. In particular, this section demonstrates how the MWCOC model is the foundation for determining future traffic volumes and future traffic impacts. As studies move from conceptual level to full design and implementation, DDOT updates future traffic volume forecasts and future transportation impacts using the latest MWCOC models and land use forecasts, to ensure that anticipated development and infrastructure growth have been captured in its evaluation. Projects are carefully analyzed as to how they accommodate future traffic conditions.

Section 5 explains the major finding of the report, namely that DDOT through its individual transportation planning studies and project development, has taken a comprehensive look at future land use and travel demand in the Anacostia corridor, and that the proposed Anacostia Waterfront transportation infrastructure serves that future travel demand well.

## Appendix C

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The goal of the document is to assure the community that DDOT planning has incorporated the proposed and planned developments in the AWI area, and that proposed infrastructure improvements will accommodate the anticipated growth. The Mobility Study is intended to illuminate how land use, development, and traffic information are used by District agencies as they cultivate projects to solve current transportation problems without creating new ones in the future.



## Section 1. Background

Major metropolitan areas in the United States are required to analyze how land is expected to be developed and how that influences and is affected by the network of streets, roads, bridges and all other transportation infrastructure. This activity, land use planning and its relationship with transportation, is an area of growing interest in the District of Columbia. The District Department of Transportation (DDOT) is in the process of planning and building the infrastructure to complete the Anacostia Waterfront Initiative (AWI) transportation projects. As in many communities, within the AWI area there is concern from the public that the planned infrastructure will not be able to accommodate anticipated growth from planned and proposed development in the District. DDOT has made a point of planning projects that improve the city's transportation infrastructure while not adding pavement, and at the same time, high-density development projects are proposed or planned in many parts of the city. This apparent disparity or disconnection between development levels and roadway capacity has inspired concern among community members that the transportation infrastructure will not be able to handle the growth from the development, and that DDOT has underestimated future traffic impacts.

DDOT is dedicated to openness concerning transportation planning and appreciates that the community needs a full understanding of the development assumptions used by the District and DDOT in their planning studies. With a clearer understanding of the process, the community will better be able to evaluate the impact of land use and transportation projects proposed for the area, have confidence in the recommendations from the planning studies and be assured that the planned infrastructure will accommodate future growth. One important element of DDOT's objectives in developing infrastructure projects is the notion that increased capacity will only contribute to non-attainment of air quality standards because traffic will expand to fill the newly available space. DDOT is dedicated to making sure that there is a balanced, sustainable, multi-modal transportation network. They are equally dedicated to the notion that no community can build its way out of traffic congestion. Instead, the improvements proposed for the corridor seek to maximize the efficient use of the existing system while providing missing logical connections.

In addition to the outreach that DDOT consistently undertakes in the project planning and development process, it also presents this Mobility Study. The purpose of the Mobility Study is to respond to the requests of the community and provide data regarding the federally-mandated planning process utilized by DDOT.



Figure 1. Anacostia Waterfront Study Area (Source: Office of Planning, 2005)

## ***Section 2. MWCOG Land Use Forecasts***

The following section discusses the MWCOG planning process and what materials and information they gather to form their land use forecasts. The MWCOG model assumptions are the basis for all transportation planning projects undertaken in the metropolitan Washington region.

### ***Section 2.1. Modeling Activities***

Like every major municipal area in the United States, the Washington metropolitan region follows a defined transportation planning process. The Transportation Planning Board (TPB) is the recognized metropolitan planning organization (MPO) for the Washington metropolitan region. Although it operates independently of the MWCOG, its staff is provided by the Department of Transportation Planning within MWCOG. The TPB has developed the transportation planning process based on federal requirements that forecasts the transportation impacts, needs, and travel patterns over a 20-25 year time frame. Most of the process is performed by using travel demand models. The TPB, in conjunction with the MWCOG, uses regional travel demand models to produce regional travel demand forecasts and air quality assessments in order to support long-range planning, and for the development of key planning documents. The model is essential for the development of the Constrained Long Range Transportation Plan<sup>1</sup> (CLRP) and the six-year Transportation Improvement Program<sup>2</sup> (TIP). Any time that the CLRP and TIP are amended, the region's transportation networks (roads and transit), as well as all new projects, must be modeled to ensure air quality conformity for the region. Federal law, the Clean Air Act (1990), requires travel demand modeling to show that the CLRP and TIP are in conformity with regional air quality improvement goals.

The modeling process produces travel forecasts (in the form of vehicle trips, vehicle miles of travel, transportation mode choice options, and vehicular speed data) that can be used in a variety of decision-making opportunities by the local jurisdictions. The regional travel forecasting models are also used in other functions throughout the region. State departments of transportation (DDOT, VDOT, MDO'T), WMATA, and local transportation agencies all use the models to develop future travel demand for corridor studies and other analyses. The models help determine the future impacts of the proposed infrastructure. The model is also used to examine the mobility of various population segments.

It is important to note that travel demand modeling and forecasting is not an exact science; travel patterns and traffic volumes over a long period of time cannot be predicted with precise accuracy. However, the output from the models can be used as a basis for comparison. Transportation decision makers and local governments can use the output from the models to analyze different transportation options and determine the potential effects those options would have on the regional and/or local system, such as the effects of various potential land use and development scenarios on future traffic congestion levels.

#### **Section 2.1.1. MWCOG Regional Travel Demand Model**

The current officially adopted travel demand model in use by MWCOG is Version 2.1D #50, which was adopted November 17, 2004 when the TPB approved the air quality determination for the 2004 CLRP and the FY 2005-2010 TIP. The MWCOG travel demand model is refined on a periodic basis with newly collected data or with emerging forecasting techniques. During the refinement process, there typically will be a draft travel demand model that is under development and available for public review. The next draft travel demand model will be Version 2.1E.

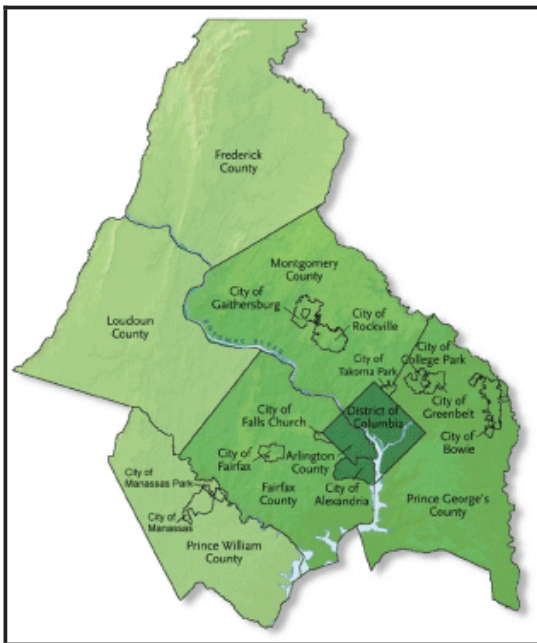
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<sup>1</sup> The CLRP is a financially constrained comprehensive plan of transportation projects and a system-wide collection of strategies that the TPB realistically anticipates can be implemented over the next 25 years. Federal law requires that the CLRP be updated every three years. The TPB has typically amended the CLRP every year.

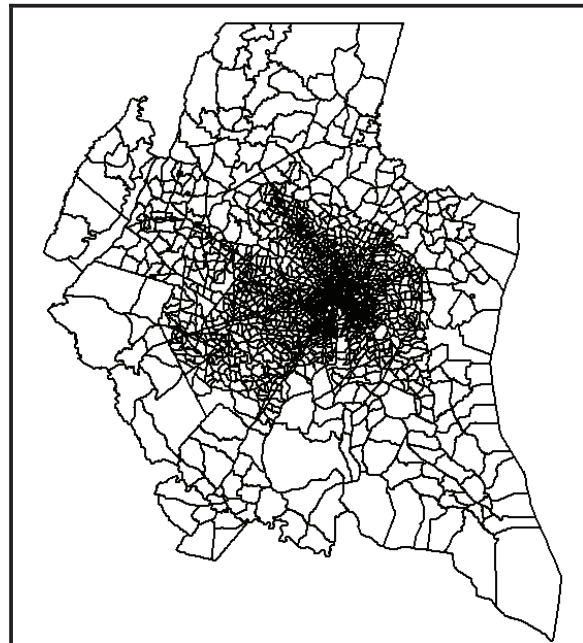
<sup>2</sup> The TIP provides detailed information showing which projects in the CLRP will be completed over the next six-year period. The TIP, like the CLRP, is subject to federal review and must meet air quality conformity requirements. TPB develops a new TIP every year.

For many of the AWI transportation studies, a previous version of the MWCOG model, Version 2.1 C, was used to forecast future travel demand. For the upcoming South Capitol Street and 11<sup>th</sup> Street Bridges Project Environmental Impact Statements, MWCOG Version 2.1 D will be used to forecast future travel demand.

The AWI area, though sizeable, is only a small portion of the entire area covered by the MWCOG model. The MWCOG travel demand model covers an area of 6,800 square miles, or 22 jurisdictions (counties and cities). This area is divided into about 2,000 traffic analysis zones (TAZs). The highway network represents over 27,000 road segments and the transit network includes over 600 routes, including such modes as Metrorail, Metrobus, other local bus, commuter bus, and commuter rail.



**Figure 2.** MWCOG's Member Jurisdictions  
(Source: [www.mwco.org](http://www.mwco.org), 2005)

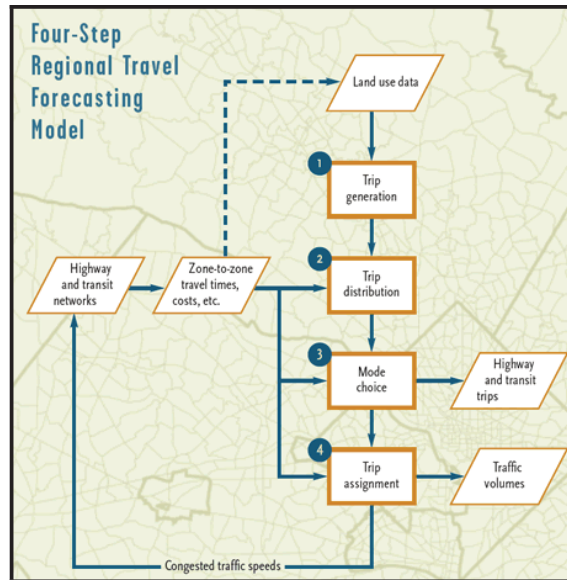


**Figure 3.** Map of MWCOG's Traffic Analysis Zones  
(Source: Parsons Brinckerhoff, 2005)

### Section 2.1.2. The Four-Step Process

For its regional travel demand model, MWCOG uses the four-step process to determine travel demand. The four main steps of this process are:

- **Trip generation** - determine the number of daily trips that take place in the region by estimating the number of "trip ends" produced in and/or attracted to each transportation analysis zone (TAZ) in the region.
- **Trip distribution** – determine the geographical linkages between the trips "produced" and those "attracted" to develop complete trips.
- **Mode choice** – determine the mode of travel for commuters (mass transit, drive alone, or carpooling).
- **Trip assignment** - determine the routes travelers choose to reach their destinations.



**Figure 4.** The Four Step Regional Travel Forecasting Model  
(Source: [www.mwco.org](http://www.mwco.org), 2005)

The four-step model is a trip-based model that is used, in one form or another, by almost every MPO that performs regional modeling. The first three steps are used to estimate the demand for travel. In the fourth step, trip assignment, the travel demand is brought into equilibrium with the travel supply, as trips are loaded onto one or more networks.

### Section 2.1.3. Model Inputs

There are two major pieces of information that are used in the MWCOG model: transportation inputs and land use inputs.

Transportation inputs include highway transportation network, public transportation network, planned improvements, and potential network changes. Information regarding the transportation inputs comes from the existing transportation network, coupled with current transit fares and policies, local jurisdictions' transportation plans, and proposed roadway and transit improvements.

Land use inputs include forecasts of future population, household growth, and employment. MWCOG's Cooperative Forecasting Program develops the land use inputs using information from real estate development, market conditions, adopted land use plans, and planned transportation improvement impacts. The data developed through this program reflects the best judgment of planning officials from the local jurisdictions. This enables local and regional planning efforts to be coordinated using common assumptions with regards to future growth. The Cooperative Forecasts combine regional data, based on national economic trends and regional demographics, with location projections of population, households, and employment. Section 2.2. describes the development of the commonly used land use forecasts for the MWCOG model.

The MWCOG travel demand models are empirically estimated and calibrated using observed data. Major sources of observed data used to calibrate and validate the model include census data, household travel surveys, automobile travel time surveys, airline passenger surveys, WMATA Metrorail surveys, traffic counts, and truck surveys.



#### **Section 2.1.4. Model Outputs**

The COG Model produces information including highway and transit trips and traffic volumes. Other outputs include:

- Travel flows on links
- Speeds on links
- Origin/destination patterns, represented by zone-to-zone trip tables segmented by travel mode
- Mode splits
- Emissions (requires post processor and emissions models)

The outputs are used to provide decision makers with information regarding the future mobility in the region.

#### ***Section 2.2. Land Use Forecasting***

The Cooperative Forecasting program is a joint effort by the MWCOG, federal and local governments to produce a consistent set of long-range economic and demographic forecasts for use in metropolitan and local planning programs. The process ensures that as each municipal agency carries out their planning and forecasting activities, there information the same, and uses the same parameters, as neighboring municipalities. The process provides common assumptions about future growth and development in the region and results in forecasts of employment, households and population in five-year increments for the entire metropolitan area. The resulting forecasts apply not only to individual member jurisdictions, such as the District or Loudoun County, but also for any traffic zone within each jurisdiction. The Cooperative Forecasting program, established in 1975, works to provide forecasts on which to base functional plans in the areas of transportation, water resources, air quality, housing, land use, and energy.

Each series of forecasts constitutes a “round.” Each round covers a period of 20-30 years. Major “rounds” (Round 6, Round 7) have been prepared following significant events in metro area demographics, typically the release of Census data, but also major changes in development or transportation infrastructure. Forecasts are also updated annually by MWCOG based on adjustments made by local jurisdictions. These updated forecasts are referred to by adding a number after the major “round” number, such as Round 6.1, Round, 6.2, etc. The current forecasts developed by MWCOG are the Round 6.4A land use forecasts, approved by MWCOG’s Board of Directors in November 2004. Round 6.4A forecasts will be used in the modeling efforts for the South Capitol Street and 11<sup>th</sup> Street Bridges Environmental Impact Statements.

The modeling activities for the other AWI studies (*South Capitol Corridor Gateway Improvement and Anacostia Access Studies, Middle Anacostia River Crossings Transportation Study, Kenilworth Avenue Corridor Transportation Study*) used the Round 6.3 land use forecasts. Round 6.3 was approved by MWCOG’s Board of Directors on October 8, 2003. The purpose of Round 6.3 figures is to incorporate newly released Census 2000 figures for population and households to correct the projected 2000 figures used in the initial Round 6 data set.

#### **Section 2.2.1. Methodology**

The Cooperative Forecasts is a multi-stage, “top-down/bottom-up” process undertaken by MWCOG’s Planning Directors Technical Advisory Committee and the Cooperative Forecasting and Data Subcommittee. Both committees employ both a regional econometric model and local jurisdictional forecasts in their determination of the cooperative forecasts. The regional econometric model projects the employment, population, and households for the metropolitan Washington area based on national economic trends and local demographic factors. The model is based on the 1983 definition of the Metropolitan Statistical Area (MSA) that includes the MWCOG member jurisdictions, as well as other counties in the region. At the same time, local jurisdictions, such as Washington DC, develop independent projections of employment, population, and households, based on pipeline development, market conditions, planned transportation improvements, and adopted land use plans and zoning. While doing this, local jurisdictions consider the preliminary regional projections. The Cooperative Forecasting and Data Subcommittee, which is composed

of local government planners, economists, and demographers, reviews and reconciles the two sets of projections. The model and the local jurisdictional projections must be within three percent of each other for the new set of Cooperative Forecasts to be reconciled.

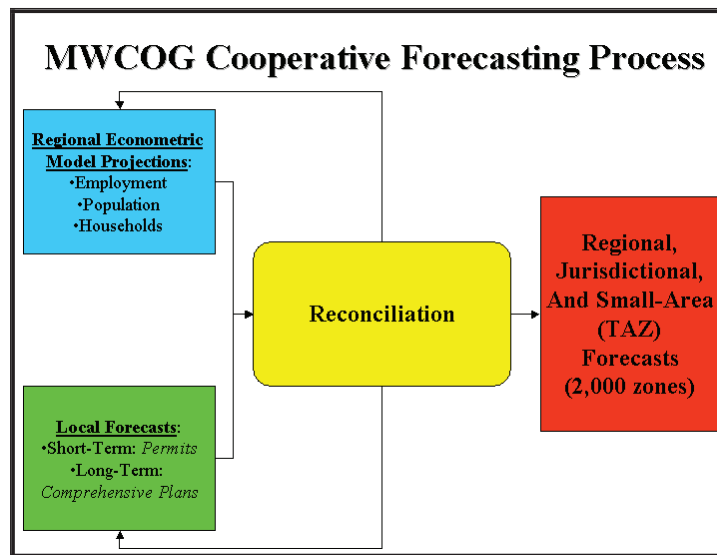


Figure 5. MWCOG Cooperative Forecasting Process  
(Source: [www.mwcof.org](http://www.mwcof.org), 2004)

Once the forecasts are reconciled and approved by the Cooperative Forecasting and Data Subcommittee, the forecasts are then presented and approved by the following committees at MWCOG: the Planning Directors Technical Advisory Committee, the Metropolitan Development Policy Committee, and ultimately the MWCOG Board of Directors, which is composed of local elected officials from throughout the region.

Recognizing that market conditions and policies may change, the subcommittee also reviews the forecasts annually, and allows local governments to make minor adjustments to reflect these changes. The forecasts may also be adjusted to reflect local governments’ assessments of the likely housing and employment impacts due to major new transportation facilities.

In Washington, DC, the Office of Planning (OP) is responsible for submitting data to MWCOG for the development of the cooperative forecasts. OP staff members serve on the various MWCOG’s committees, including the Cooperative Forecasting and Data Subcommittee and Planning Directors Technical Advisory Committee, to serve as representatives for the District of Columbia. OP also develops employment, population, and household forecasts based on planned developments and state data, and must be constrained by the DC Comprehensive Plan and associated master plan documents. OP also reviews the forecasts from MWCOG and makes recommendations on refinements or adjustments before approving the forecasts for publishing.

By providing cooperative land use forecasts, MWCOG is able to provide a consistent set of local and regional forecasts for use in program and facility planning throughout the region. According to the federally mandated planning process, any travel demand modeling activities performed as part of corridor and planning studies must use the officially adopted version of the travel demand model, usually the most recent version, and the most recent model inputs, including land use forecasts. The most recent land use forecasts have been agreed upon by the TPB, COG, and the local jurisdictions. DDOT uses the most recent land use forecasts as part of the officially adopted travel demand model so as to remain in compliance with federal procedures.

Use of the most recent model inputs is important if future roadway projects are vying for federal funding, and will need to be added to the CLRP for future years.

### Section 2.2.2. MWCOG’s Round 6.3 Cooperative Land Use Forecasts

The Round 6.3 Cooperative Land Use Forecasts were used in the travel demand modeling activities for most of the AWI transportation studies, including the South Capitol Street Gateway Improvement and Anacostia Access Studies, the Middle Anacostia River Crossings Study, and the Kenilworth Avenue Corridor Study. It should be kept in mind, then, that the employment, population, and household forecast data from the Round 6.3 serve as the basis for developing future traffic volumes and determining future transportation impacts.

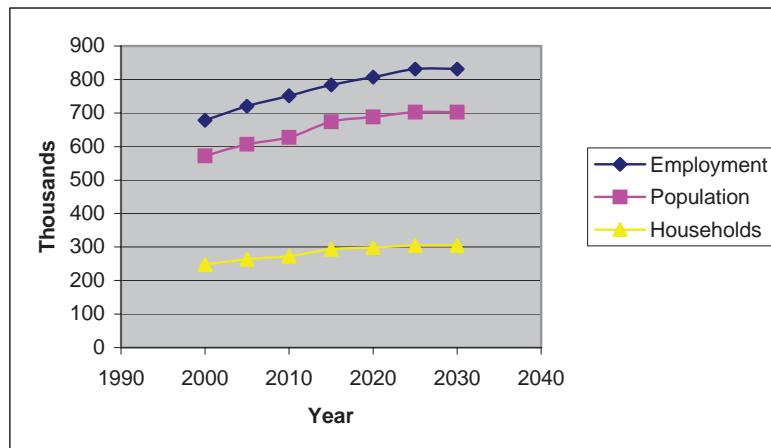
### Section 2.2.3. DC Growth Trends

According to the Round 6.3 intermediate forecasts, employment, population, and households are all projected to increase over the next 25 years. Jobs in the District of Columbia are expected to increase by 23 percent. The District’s population also is expected to grow steadily from 2000 to 2030 by 23 percent from 2000 to 2030. In addition, the number of households is expected to grow by 23 percent over the 30-year timeframe.

**Table 1** and **Figure 6** display the Round 6.3 forecasts for employment, population, and households.

**Table 1.** Round 6.3 Land Use Forecasts (Source: MWCOG, 2003)

Category	Actual	Forecasts					
	2000	2005	2010	2015	2020	2025	2030
<i>Employment</i>	678,017	720,407	752,016	783,731	807,107	831,196	831,196
<i>Population</i>	572,059	606,998	626,996	673,711	688,132	702,441	702,441
<i>Households</i>	248,338	263,937	272,237	292,945	298,744	304,441	304,441



**Figure 6.** Round 6.3 Land Use Forecasts  
(Source: Parsons Brinckerhoff, 2005)

### Section 2.2.4. AWI Study Area Growth

Out of approximately 2000 traffic analysis zones that comprise the DC metropolitan area, over 100 zones lie in the study area for the Anacostia Waterfront Initiative. **Figure 7** shows the TAZs in the AWI study area.

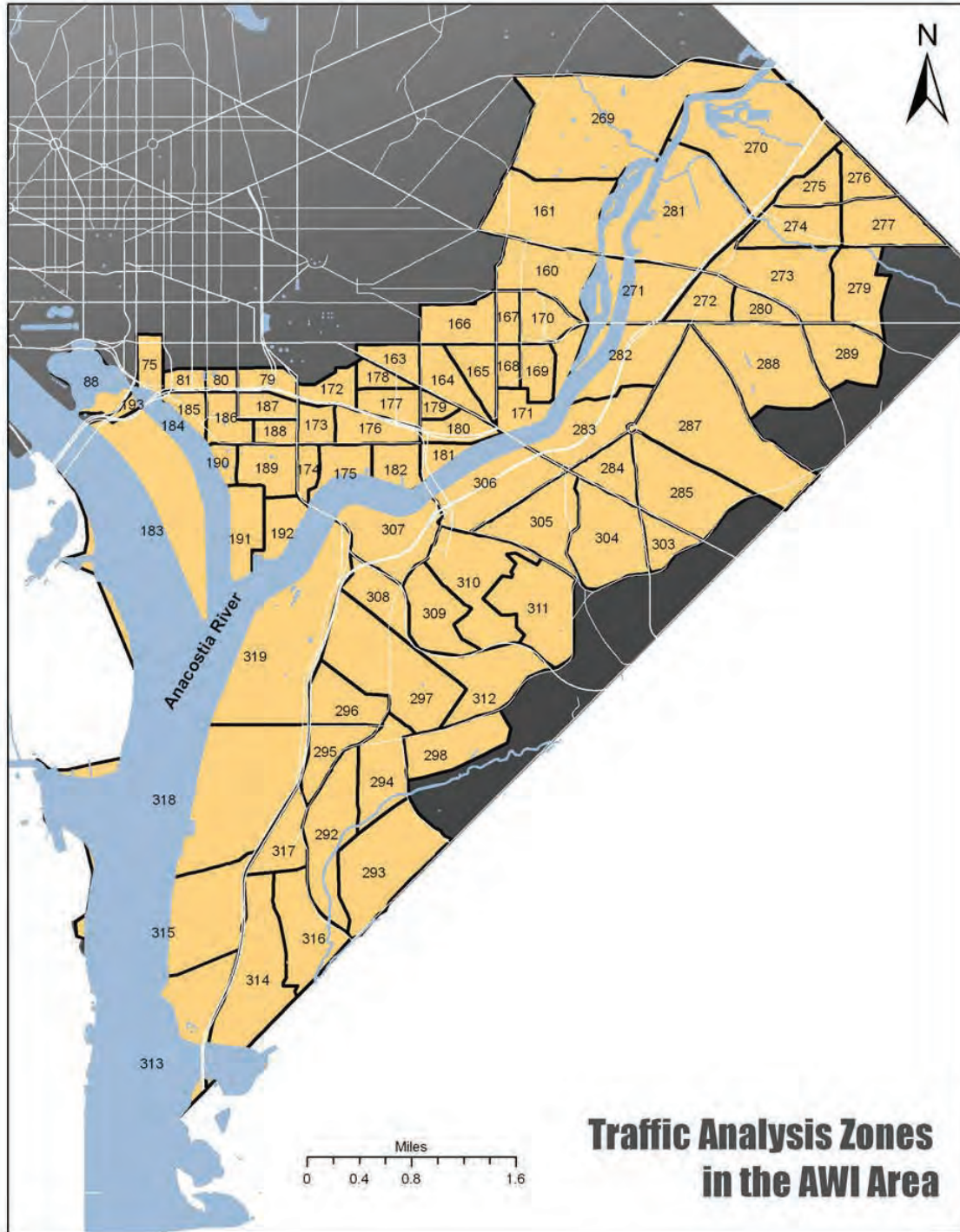
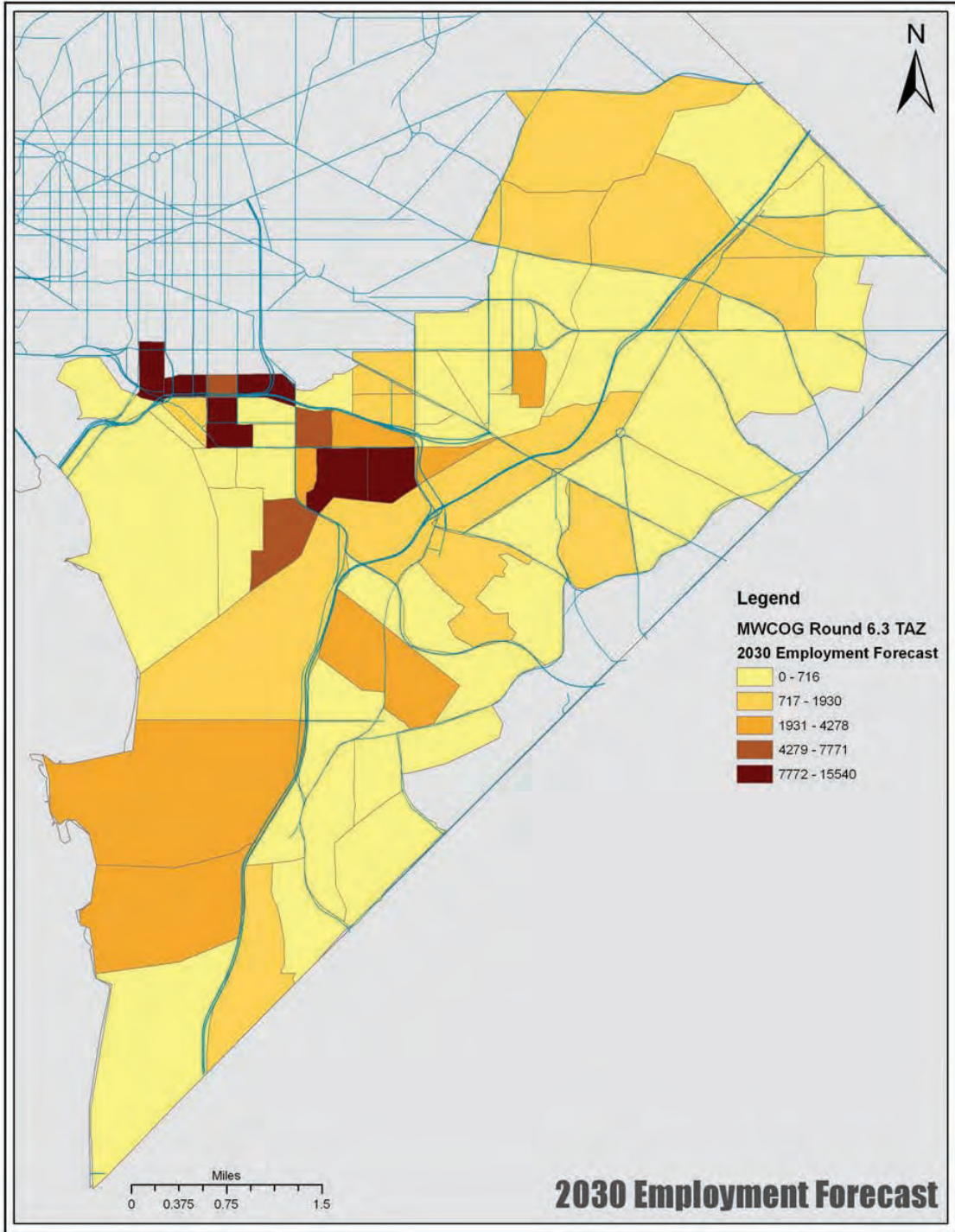


Figure 7. Map of TAZs in AWI study area  
(Source: Parsons Brinckerhoff, 2005)

Figures 8 and 9 show the 2030 forecasts for employment, population, and households from the Round 6.3 land use data.





**Figure 8.** 2030 Employment Forecasts  
 (Source: Parsons Brinckerhoff)

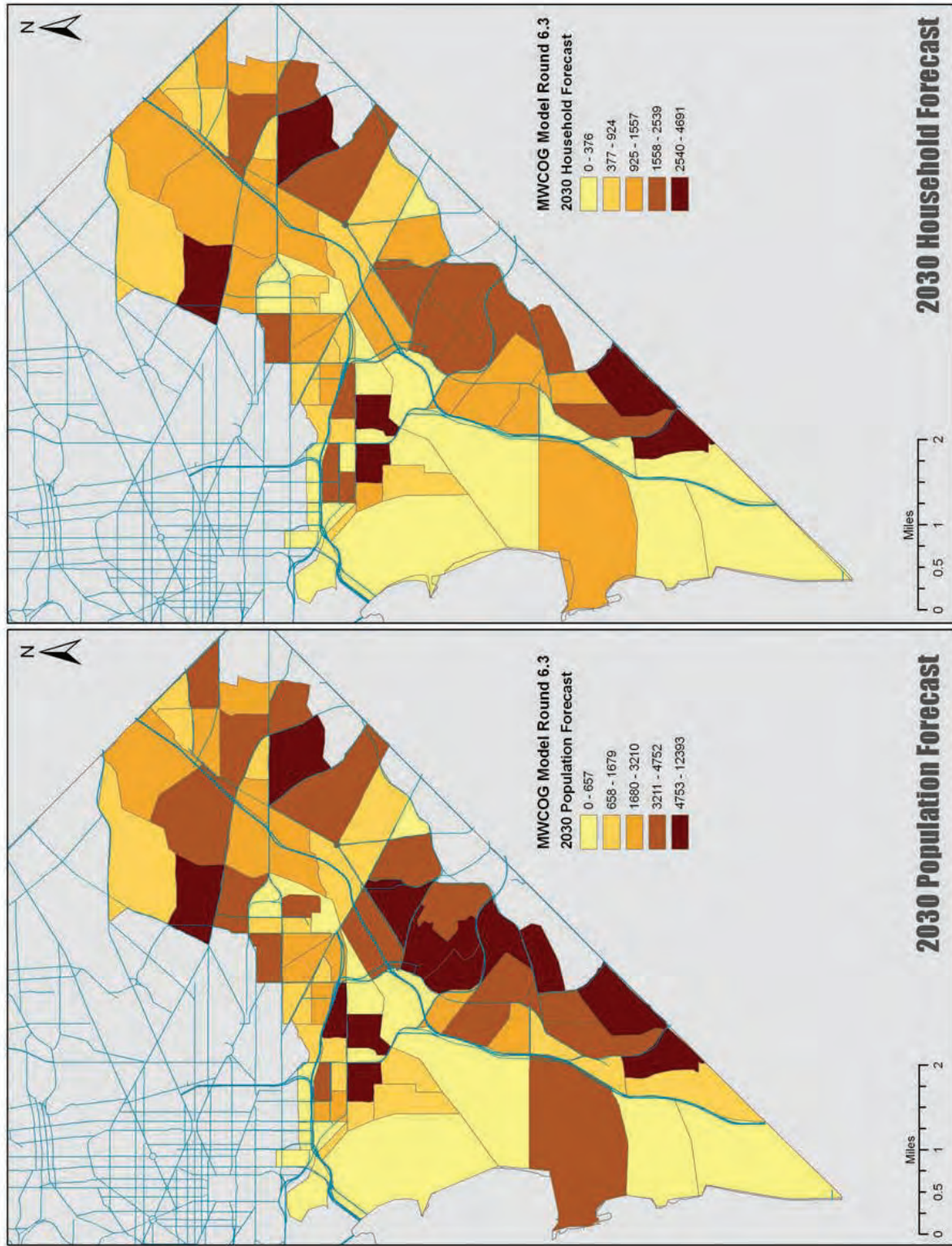


Figure 9. 2030 Population and Household Forecasts (Source: Parsons Brinckerhoff)

**Table 2** shows the comparison of forecasts from 2000 to 2030 in the AWI study area. According to the Round 6.3 land use forecasts, there will be an increase of approximately 30 percent in population, employment, and households over a thirty-year period in the AWI study area.

**Table 2.** 2000 vs 2030 Forecasts in AWI Study Area (Source: MWCOG, 2005)

	<b>Employment</b>	<b>Population</b>	<b>Households</b>
<b>2000</b>	164,518	214,010	87,834
<b>2030</b>	210,116	273,766	115,359
<b>% Change</b>	28%	28%	31%

**Figures 9** and **10** show the map of the targeted growth areas in the AWI study area.

According to the Round 6.3 land use forecasts, there will be a 28-percent (approximate) growth in employment in the AWI study area. Targeted areas of growth include Buzzard Point, Near Southeast, Poplar Point, Anacostia and Northeast DC. There are areas of significant growth in the Navy Yard district.

A 28-percent growth in population is forecasted for the AWI study area. Areas such as the Southwest Waterfront, Buzzard Point, Near Southeast, Poplar Point, Saint Elizabeth’s Hospital, and Hill East are expected to grow in population by 100 percent or more. Such an increase in population is significant. Along the South Capitol Street corridor there is also a significant increase projected for population.

The number of households in the AWI study area is predicted to increase by 31 percent. Areas of growth include the Southwest Waterfront, Waterside Mall, Buzzard’s Point, Near Southeast, Poplar Point, Saint Elizabeth’s Hospital, Hill East, and points east of the Anacostia River. Significant household growth will occur along the South Capitol Street corridor.

The Round 6.3 Land Use Forecasts indicate certain AWI areas where a significant amount of growth will be focused. These areas include the Southwest Waterfront, Buzzard Point, Near Southeast, Hill East, and Poplar Point. This concentration indicates that the high levels of development planned in these areas were included in the Round 6.3 forecasts, and were subsequently incorporated in the travel demand modeling analysis. Because the growth was accounted for in the regional travel demand model, the modeling efforts undertaken for the AWI transportation studies also included the anticipated growth in these targeted areas. The destination of this trail of data input and modeling brings one to the understanding that traffic volumes and the subsequent analyses of traffic impacts as documented in each of the studies took into the consideration the growths in these areas.



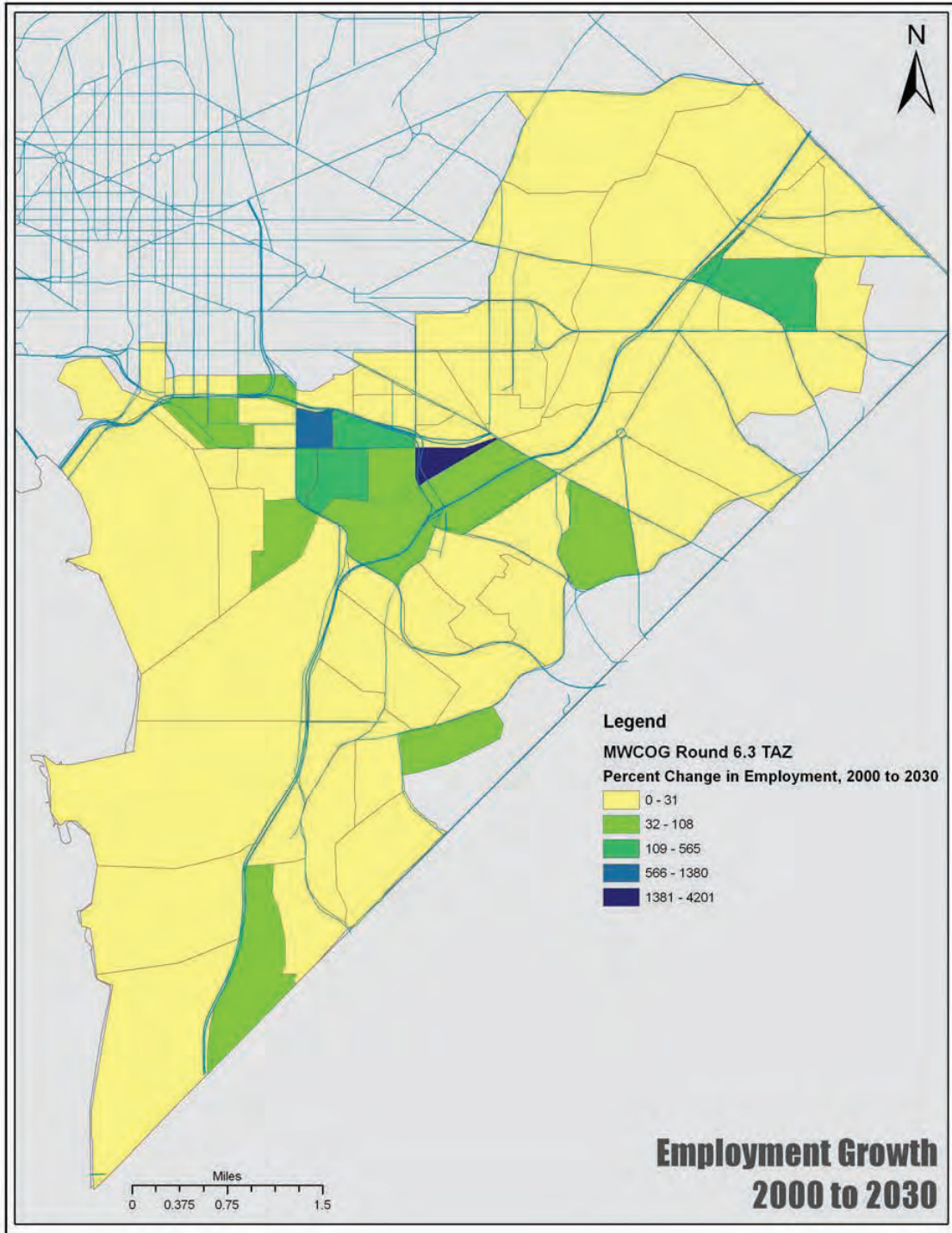


Figure 9. Percent Change in Employment, 2000 to 2030  
(Source: Parsons Brinckerhoff, 2005)



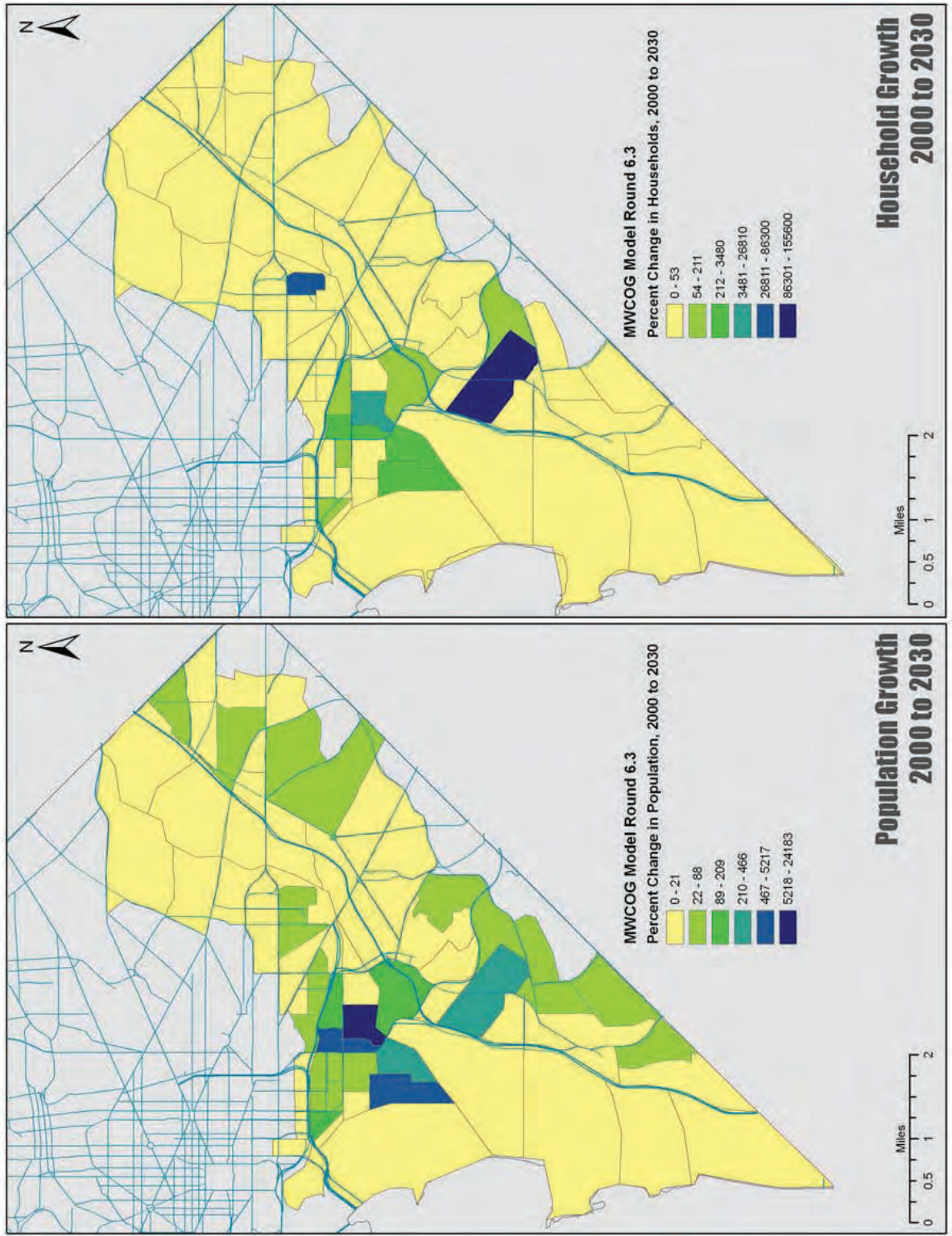


Figure 10. Percent Change in Population and Households, 2000 to 2030 (Source: Parsons Brinckerhoff, 2005)

### ***Section 3. DC Office of Planning***

The previous sections described the efforts of the regional planning body to accommodate land use and transportation changes in their regional modeling efforts. This section will explain the more local activities undertaken by the District Office of Planning (OP). OP has several functions. It is the city agency responsible for serving each DC neighborhood with planning representation, overseeing the development review process, disseminating demographic, economic, and spatial data concerning the District, overseeing historic preservation, and serving as the key agency in the revitalization of the District neighborhoods by developing thoughtful plans for this revitalization. OP was the lead agency behind the development of the Anacostia Waterfront Initiative.

The functions of the agency include developing neighborhood revitalization plans, collaborating with neighborhoods on community priorities, incorporating historic preservation into the overall city planning, and reviewing development plans. OP performs three functions, discussed below, that significantly contribute to District development and that provide crucial inputs for regional land use planning: development review, long range planning, and neighborhood planning and development.

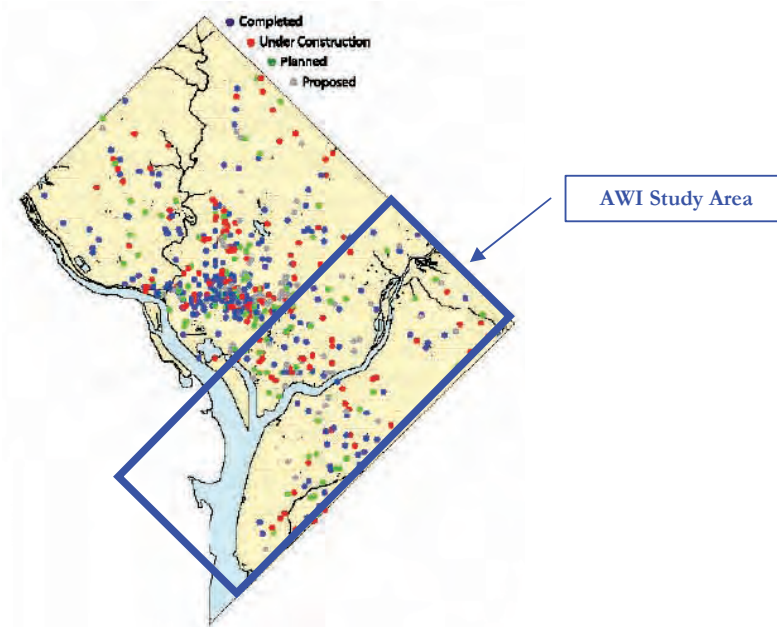
The *Development Review Division* assesses plans that are generally large, complex, and precedent-setting in their potential to change the character of an area. The division reviews development applications submitted to the Office of Zoning, and reports on the developments' consistency with the DC Comprehensive Plan, and the Planned Unit Development (PUD) process. OP staff review the applications and provide reports to the Office of Zoning detailing the development impacts and recommendations for a public hearing. Because OP knows about and reviews all of these major developments, when they provide information to MWCOC they are able to report on significant, real-world changes that are outside classic regional growth equations.

The *Long Range Planning Division* is responsible for guiding long-term (20-year) planning and policy decisions for the District. The division works to identify, analyze, interpret and explain emerging trends in the District, as well as evaluate existing and proposed policies in light of detailed data analysis. The Long Range Planning Division is responsible for developing and monitoring the District Elements of the Comprehensive Plan, the District's only legislatively mandated plan. Staff members of the Comprehensive Planning unit, which is under the Long Range Planning Division, participate in a number of MWCOC committees and provide inputs to MWCOC on the city's land use plans. As with the development review division, the long range planning staff understands both the regular trends in city growth, and more exceptional elements in city expansion.

The *Neighborhood Planning & Development/Urban Design Division* works to revitalize neighborhoods, restore economic health, create a world-class waterfront, and encourage a diverse and dynamic downtown. The division develops neighborhood strategic plans for each of the city's 39 neighborhood clusters, develops comprehensive strategies for large-scale development, and develops master plans for neighborhood revitalization. It is this division that laid the groundwork for the Anacostia Waterfront Initiative. This division is in touch with the District's citizens at the most intimate level.

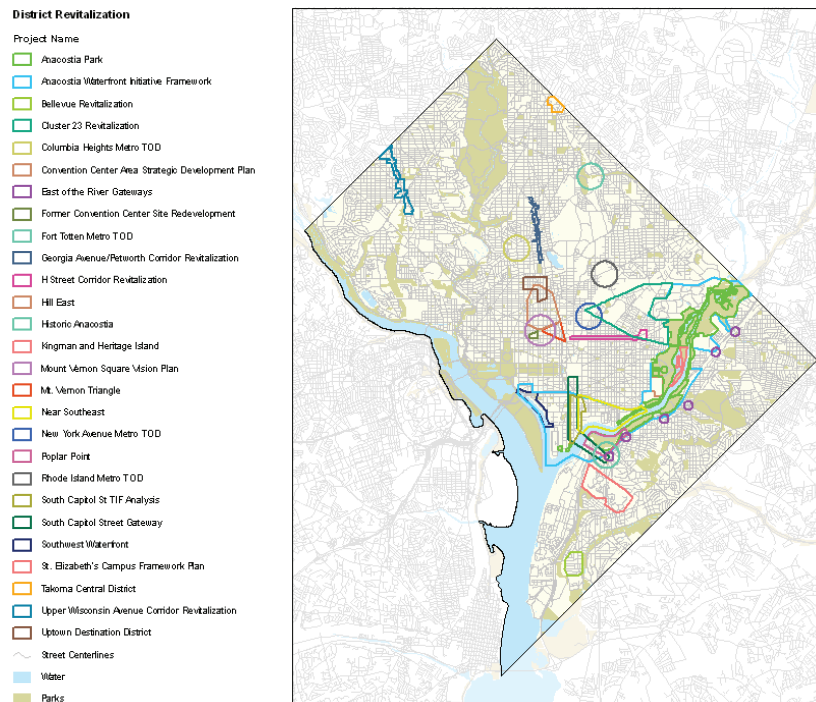
#### ***Section 3.1. Development Activity in the AWI Study Area***

OP is in touch with all development throughout the District. **Figure 11** shows the development activity for the District, as of 2003. As explained in the previous section, there is significant development slated for the District of Columbia, particularly in the AWI target areas. The combined development activity in Wards 6 and 8, the wards in which the majority of the AWI study area lies, consists of 200 development projects in various stages. This development will consist of over 50 million square feet of new or renovated market uses. Another factor of note is that most of the development in the AWI target areas consists of mixed-use development.



**Figure 11.** Development Activity in the District of Columbia  
(Source: DC Marketing Center, 2003)

**Figure 12** shows the development project areas initiated by the Office of Planning. Key development areas with specific correlation to the DDOT’s transportation projects besides the AWI Framework include Anacostia Park, the East of the River Gateways, South Capitol Street Gateway and TIF Analysis, Poplar Point, Historic Anacostia, Poplar Point and St. Elizabeth’s Campus Framework Plan.



**Figure 12.** Office of Planning Development Project Areas (Source: [www.planning.dc.gov](http://www.planning.dc.gov), 2005)



### *Section 3.2. DC OP Development Methodology*

Generally, the Office of Planning tracks development projects that are larger than 10 units or 5,000 square feet of a commercial land use. Each project is tracked by status and defined by one of the following categories: proposed, planned, under construction, and completed.

- **Proposed / Conceptual** – Proposed projects are defined as a potential development where a developer, individual, or organization has ability and interest in developing a project and has made that interest public. OP becomes aware of these projects through news reports or other sources, but has limited information on them or, in some cases, is large redevelopment or planned neighborhoods.
- **Planned** – Projects are defined as planned when a developer has site control and funds committed or the project has received approval from the Office of Zoning. Delivery of the project is expected within five years.
- **Under Construction** – Projects are defined as under construction once a building permit has been issued on the project. Delivery of the project is expected within two years.
- **Completed** – Projects are defined as completed once the first certificate of occupancy is issued on a project, except in the case of a multi-phase project, where each phase of the project is tracked separately.

OP keeps a database of all development projects that meet the criteria described above. They use this information in a number of ways. They review and analyze Office of Zoning development applications and report to the Office of Zoning on impacts of the proposed development and project compliance with the Comprehensive Plan. They use development information, along with market trends, to provide inputs to the MWCOC Cooperative Land Use Forecasts. They develop neighborhood revitalization plans and economic development plans that consider future development activity. Specifically, then, OP's development methodology plays a key role in assessing the impacts of development and infrastructure for the AW region.

**Figure 13** shows the developments planned for the AWI study area, as taken from the Office of Planning's development database. **Table 3** describes the list of development projects in the study area. The development projects include mixed-use, residential, office, institutional, and hospitality uses. Most of the projects in the database are for new construction and are in various stages of progress.

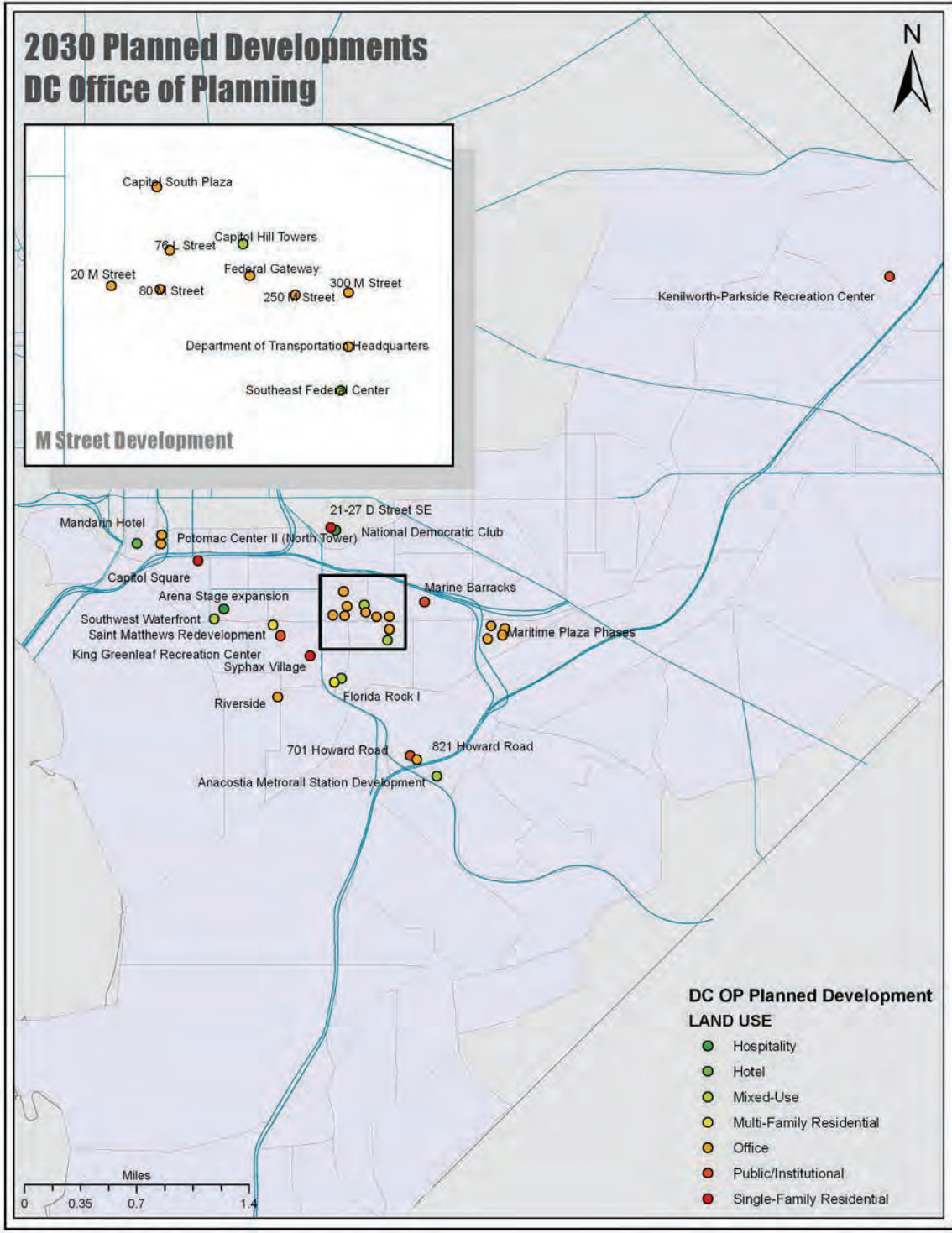


Figure 13. OP's Tracked Development in AWI Study Area  
(Source: DC Office of Planning, 2005)

Table 3. OP's Tracked Development in the AWI Study Area<sup>3</sup>

	Project	Address	Ward	Status	Delivery	Land Use	Valuation	Developer
1	Mandarin Hotel	1330 Maryland Ave SW	2	C3	Mar-04	Hotel	\$ 144,000,000	Mandarin Oriental Hotels
2	Potomac Center (South Tower)	550 12 <sup>th</sup> St SW	2	C3	Apr-03	Office	\$ 70,000,000	JBG Companies
3	Potomac Center II (North Tower)	500 12 <sup>th</sup> St SW	2	UC	Nov-05	Office	\$ 89,000,000	JBG Companies
4	20 M Street	20 M St SE	6	UC	Nov-03	Office	\$ 17,100,000	Lerner Enterprises
5	21-27 D Street SE	21-27 D St SE	6	PR		Single-Family Res.	\$ -	Capital City Development Corp.
6	250 M Street	250 M St SE	6	PR	Oct-03	Office	\$ 36,300,000	William C Smith and Company
7	300 M Street	300 M St SE	6	C2	May-01	Office	\$ 26,336,000	Potomac Investment Properties
8	76 L Street	76 L St SE	6	UNK		Office	\$ 180,000,000	Peterson Companies
9	80 M Street	80 M St SE	6	C2	Jul-01	Office	\$ 25,477,000	Spaulding and Slye Colliers
10	Arena Stage expansion	1101 6 <sup>th</sup> Street, SW	6	PL		Hospitality	\$ 80,000,000	Washington Drama Society
11	Capitol Hill Towers	140 L St SE	6	UC	Aug-05	Mixed-Use	\$ 105,000,000	Valhal Corporation
12	Capitol South Plaza	77 I St SE	6	C		Office	\$ 34,375,000	Potomac Development Corp.
13	Capitol Square	799 G St SW	6	C2	Nov-01	Single-Family Residential	\$ 10,000,000	Eakin Youngentob Associates Inc
14	Department of Transportation HQ	1204 4 <sup>th</sup> St SE	6	UC	Sep-06	Office	\$ 330,000,000	JBG Companies
15	Federal Gateway	1100 New Jersey Ave SE	6	C3	Aug-03	Office	\$ 50,000,000	Spaulding and Slye Colliers
16	Florida Rock I	100 Potomac Ave SE	6	PL		Mixed-Use	\$ 357,500,000	
17	Florida Rock II	25 Potomac St SE	6	PR		Multi-Family Residential	\$ 50,000,000	John Akridge Companies
18	King Greenleaf Recreation Center	201 N St SW	6	UC	Oct-03	Public/ Institutional	\$ 3,400,000	DC Dept of Parks and Recreation
19	Marine Barracks	1011 7 <sup>th</sup> St, SE	6	C		Public/ Institutional	\$ 35,000,000	US Marines Corps
20	Maritime Plaza Phase I	1201 M St, SE	6	C2	Nov-01	Office	\$ 30,000,000	Lincoln Property Company
21	Maritime Plaza Phase II	1220 12 <sup>th</sup> St SE	6	C3	Jan-03	Office	\$ 50,000,000	Lincoln Property Company
22	Maritime Plaza Phase III	1205 M St SE	6	PR		Office	\$ 30,000,000	Lincoln Property Company
23	Maritime Plaza Phase IV	1205-1207 M St SE	6	PR		Office	\$ 30,000,000	Lincoln Property Company
24	National Democratic Club	411 New Jersey Ave SE	6	PR		Hospitality	\$ -	Democratic National Club
25	Riverside	2nd St SW at R St SW	6	PL		Office	\$ 375,000,000	John Akridge Companies
26	Saint Matthews Redevelopment	222 M St SW	6	PL	Jun-04	Multi-Family Res.	\$ 45,000,000	Mid-City Urban LLC
27	Southeast Federal Center	Southeast Federal Center	6	PR	Dec-17	Mixed-Use	\$ 400,000,000	Forest City Enterprises
28	Southwest Waterfront	500 - 1300 Water St SW	6	PR		Mixed-Use	\$ 350,000,000	National Capital Revitalization Corp.
29	Syphax Village	1360 Half St SW	6	C2	Nov-03	Single-Family Residential	\$ 6,184,000	Manna Inc
30	Kenilworth-Parkside Recreation Center	4300 Anacostia Ave NE	7	PL		Public/ Institutional	\$ -	DC Dept of Parks and Recreation
31	701 Howard Road	701 Howard Rd SE	8	C3	Aug-02	Public/ Institutional	\$ 3,087,000	Advantage Schools Inc
32	821 Howard Road	821 Howard Rd SE	8	C3	Oct-02	Office	\$ 3,038,000	Jenco Development
33	Anacostia Metrorail Station Development	Anacostia Metrorail Station	8	PR		Mixed-Use	\$ 65,000,000	

<sup>3</sup> PL=Planned, PR=Proposed/Conceptual, UC=Under Construction, UNK = Unknown, C=Completed, C2=Completed over two years, C3=Completed past two years

**Section 3.3. Comparison of Development Plans with MWCOC’s Cooperative Land Use Forecasts**

A review of MWCOC’s Round 6.3 and Round 6.4A Cooperative Land Use Forecasts shows growth in the areas of households, population, and employment for several zones in the AWI study area. Since the MWCOC land use forecasts do not state specific development projects in their data, a review of the statistics show that some of the development projects are accounted for in the land use forecasts. **Table 4** shows a comparison of MWCOC’s land use forecasts with the known planned/proposed development projects. Both rounds of land use data is displayed so as to show the differences in 2030 forecasts. The table also lists the corresponding AWI transportation studies.

**Table 4.** Comparison of MWCOC’ Land Use and Development Projects in AWI Study Area Studies

SCS	South Capitol Street Studies	CHTS	Capitol Hill Transportation Study
MAT	Maine Avenue Traffic Study	MAC	Middle Anacostia Crossings Study
14TH	14th Street Bridge EIS		

Studies	TAZ										Percent change between 2000 and 2030 Round 6.4A			Development Areas
		2000	2030Round 6.3	2030 Round 6.4	2000	2030Round 6.3	2030 Round 6.4	2000	2030Round 6.3	2030 Round 6.4	Pop	HH	Emp	
		Population			Households			Employment						
CHTS, MAC	169	2365	4233	4233	1	864	864	3060	3204	3004	79%	>100%	-2%	Reservation 13
CHTS, MAC	171	4	4	4	0	0	0	12	12	412	0%	0%	>100%	Reservation 13
SCS	173	18	957	957	15	446	446	439	6689	6589	>100%	>100%	>100%	Ballpark District
SCS	174	20	657	657	13	307	307	643	4405	4805	>100%	>100%	>100%	Ballpark District
SCS	175	24	5828	5828	10	2691	2691	2622	16000	16350	>100%	>100%	>100%	USDOT/SEFC
SCS	176	1741	5381	5381	797	2482	2482	696	2999	3199	>100%	>100%	>100%	Hope VI
SCS	181	0	268	268	0	124	124	70	3100	3300	>100%	>100%	>100%	Maritime Plaza
SCS	182	22	22	22	10	10	10	5682	10799	10899	0%	0%	92%	Navy Yard
MAT, 14TH, SCS	184	0	1440	1440	0	665	665	639	639	639	>100%	>100%	0%	SW Waterfront
MAT, 14TH, SCS	185	144	346	346	94	189	189	893	893	893	>100%	>100%	0%	L'Enfant Plaza
MAT, 14TH, SCS	186	2274	3210	3210	1479	1908	1908	5419	5419	5519	41%	29%	2%	Waterside Mall
MAT, 14TH, SCS	191	57	1568	1568	20	716	716	325	325	525	>100%	>100%	62%	Buzzard's Point
MAT, 14TH, SCS	192	158	746	746	17	286	286	4959	8001	7701	>100%	>100%	55%	Buzzard's Point
SCS	296	2022	2453	2453	792	990	990	152	172	172	21%	25%	13%	St. Elizabeth's - east
SCS	297	723	4090	4090	1	1557	1557	4074	4074	4074	>100%	>100%	0%	St. Elizabeth's - east
SCS	306	3373	3501	3501	1375	1434	1434	930	1100	1300	4%	4%	40%	Anacostia Govt Center
SCS	307	238	514	514	70	197	197	1092	1932	1932	>100%	>100%	77%	Poplar Point
SCS	308	2771	3115	3115	832	991	991	182	182	382	12%	19%	>100%	Anacostia Metro
SCS	319	46	46	46	0	0	0	1131	1131	1131	0%	0%	0%	St. Elizabeth's - west

This information shows that planned growth in the AWI study area over the next 20 years was captured in the MWCOC travel demand model. The model took into account any significant planned growth and land use development that would be independent of any changes to the transportation network. Any development projects that were not included in the land use forecasts or any additional projects to be added to the Office of Planning’s database will be included in the next round of updates to the Cooperative Land Use Forecasts, as deemed for inclusion by the Office of Planning.

However for the purposes of the AWI transportation studies, planned and approved development included in the COG land use forecasts have been incorporated into the transportation analyses. MWCOC’s land use forecasts were not adjusted for each of the transportation studies, so land use assumptions remained the same for each modeling activity. Stakeholders can be confident that the traffic volumes produced as a result of the transportation studies did take into consideration the anticipated growth in the AWI study area.

### ***Section 4. Transportation Review***

As mentioned earlier, local jurisdictions and MWCOC TPB use the regional travel demand model to produce travel demand forecasts and air quality assessments to support long-range planning. Projects that are listed in the CLRP and six-year TIP are modeled regularly to ensure air quality conformity for the region, as required by air quality and metropolitan planning legislation (42 USC 7506 and 23 USC 134).

New highway and transit projects or improvements must be evaluated prior to construction to determine how well they address future demand. The design year for an entirely new facility or an improvement to an existing facility is usually 20 to 30 years in the future. As a result of this need for a long-term forecast, state departments of transportation (DDOT, VDOT, and MDSHA), WMATA, and local transportation agencies all use MWCOC's travel demand models to produce future travel forecasts for their corridor and sub-area studies. These studies must be performed in cooperation with the TPB and in accordance with federal requirements, and so they all use the MPO-approved regional model. Federal regulations require that corridor or sub-area studies be performed when any major highway or transit investments are being considered, and receive particular scrutiny if federal funds are to be used. The forecasts derived from the regional models are used to analyze different transportation options and determine the potential effects those options would have on the regional and local system. In particular the forecasts can help determine future traffic congestion levels, which help local transportation officials make informed decisions. Because state and local jurisdictions are using the most recent travel demand model and cooperative land use forecasts, they are assured of using TPB-recognized standards. This gives a greater sense of security concerning land use, development, and highway network decisions.

The evaluation of the build year for any given transportation improvement involves taking travel forecasts, and determining how those forecasts specifically affect intersections within the study area. Specific counts at an intersection provide the basis for how future trips will be distributed in a given area. Within traffic analysis zones, there are individual links where automobiles travel. If there are 30,000 trips in a TAZ, not all of them travel on every link. Instead, trips are focused along specific routes, based on information in the model that designates origins and destination. Once travel forecasts are disseminated among area roadways, and distributed through specific intersections, there is a better understanding of what will happen at a given intersection once an improvement is put in place. For example, if DDOT knows what the volumes are on specific links within a TAZ, particularly a link with a new left-turn lane proposed, then DDOT will be able to predict how many automobiles will use the new turn lane.

#### ***Section 4.1. Summary of Project-Level Traffic Modeling***

The MWCOC Regional Travel Demand Model Version 2.1 and the officially adopted Cooperative Land Use Forecasts were used in each of the transportation studies for the AWI network. Although the studies were conducted separately, the fact that the MWCOC model was used shows that the same development assumptions from the MWCOC land use forecasts were used in each model application, and thus the resulting traffic forecasts were replicated for each study. Similar modeling assumptions were used in the modeling activities for each study. The current MWCOC land use forecasts were used for each of the studies to provide continuity in land use assumptions for each modeling activity. Roadway networks were refined where needed, and the model was calibrated with real-world traffic data to ensure accuracy.



The following is a summary of the travel demand modeling activities in each of the AWI projects.

**Table 4.** Summary of Travel Demand Models for each AWI Study

	<b>South Capitol Gateway and Anacostia Access</b>	<b>Middle Anacostia River Crossings Transportation Study</b>	<b>Kenilworth Avenue Corridor Transportation Study</b>	<b>11<sup>th</sup> Street Bridges Environmental Impact Statement</b>	<b>South Capitol Street Environmental Impact Statement</b>	<b>Southwest Waterfront-Maine Avenue Study</b>
<i>Travel Demand Model</i>	Version 2.1/TP+, Release C	Version 2.1/TP+, Release C	Version 2.1/TP+, Release C	Version 2.1/TP+#50	Version 2.1/TP+#50	n/a
<i>Land Use Forecast</i>	Round 6.3	Round 6.3	Round 6.3	Round 6.4A	Round 6.4A	Trip generation rates used
<i>Horizon Year</i>	2030	2030	2030	2030	2030	2010

- South Capitol Gateway and Anacostia Access

The travel demand forecasting was conducted using the MWCOC Version 2.1/TP+, Release C Regional Travel Demand Model. The MWCOC model was used to develop year 2030 traffic forecasts based on the demographic, employment, and land use data found in the MWCOC Round 6.3 Cooperative Land Use Forecast.

- Middle Anacostia River Crossings Transportation Study

As part of the traffic analysis completed for this study, 2030 was selected as the design year for gauging the magnitude of traffic impacts for the Middle Anacostia River study area because of the timing of this study with respect to the future considerations taken into account by the regional traffic model. The MWCOC Version 2.1/TP+, Release C Regional Travel Demand Model was used to provide estimates of future traffic demand for the transportation facilities within the study area. Round 6.3 Cooperative Land Use Forecasts were also used. Future conditions were evaluated under two scenarios: the No Build Condition, and the Build Condition.

- Kenilworth Avenue Corridor Transportation Study

The travel demand forecasting was conducted using the MWCOC Version 2.1/TP+, Release C Regional Travel Demand Model and Round 6.3 Cooperative Land Use Forecasts to develop year 2030 traffic forecasts.

- 11th Street Bridges Environmental Impact Statement

This project will use the MWCOC Version 2.1D/TP+#50 Regional Travel Demand Model and Round 6.4 A Cooperative Land Use Forecasts to develop year 2030 traffic forecast. The analysis of future conditions will be evaluated under several scenarios: a No Build scenario and multiple Build scenarios.

- South Capitol Street Environmental Impact Statement (EIS)

This project will use the MWCOC Version 2.1D/TP+#50 Regional Travel Demand Model and Round 6.4 A Cooperative Land Use Forecasts to develop year 2030 traffic forecast. The analysis of future conditions will be evaluated under several scenarios: a No Build scenario and multiple Build scenarios.

- Southwest Waterfront-Maine Avenue Study (EIS)

Because of the localized study area for this project, future traffic forecasts from the MWCOC were not developed. Trip generation rates were used to calculate development-related traffic volumes and future traffic volumes were developed by applying an average growth rate based on historic traffic data to existing year traffic volumes.

## Section 4.2. Model Networks

In the AWI transportation studies, the MWCOG travel demand model was used to provide estimates of the future travel situation in order to evaluate the proposed transportation improvements in the AWI study area. In each study, the future was evaluated using two different ideas of what the future travel conditions would be: a No-Build condition, and a Build condition. The No-Build condition, as the name implies, consists of the future with only planned transportation improvements. The No-Build generally would be the roadway network we see today coupled with improvements as listed in the long range plan and 2030 traffic forecasts. This scenario would be the basis for making a comparative evaluation and would serve to guide transportation decision makers on what improvements, if any, were necessary. In contrast, the future, when considered using the Build scenario, would involve the proposed roadway improvements currently being studied. A Build scenario usually consists of the proposed roadway improvements coupled with the planned transportation improvements from the CLRP, combined with the 2030 traffic forecasts. In some instances, more than one Build scenario was evaluated, especially in cases where several design options were developed.

The following is a summary of the scenarios evaluated under each AWI transportation study.

**Table 5.** Model Networks of AWI Projects

	<b>South Capitol Gateway and Anacostia Access</b>	<b>Middle Anacostia River Crossings Transportation Study</b>	<b>Kenilworth Avenue Corridor Transportation Study</b>	<b>11<sup>th</sup> Street Bridges Environmental Impact Statement</b>	<b>South Capitol Street Environmental Impact Statement</b>
<i>Horizon Year</i>	2030	2030	2030	2030	2030
<i>No-Build Conditions</i>	n/a	Existing transportation network with refinements and planned improvements	Existing transportation network with refinements and planned improvements	Existing transportation network with refinements and planned improvements	Existing transportation network with refinements and planned improvements
<i>Build Conditions</i>	<ul style="list-style-type: none"> <li>• Six-lane principal arterial</li> <li>• Full connections at N St, Potomac Ave, Suitland Pkwy, I-295, and MLK Jr. Blvd.</li> </ul>	<ul style="list-style-type: none"> <li>• Full interchanges Pennsylvania Ave &amp; Anacostia Frwy, 11<sup>th</sup> St &amp; Anacostia Frwy, and 11<sup>th</sup> St &amp; Southeast Frwy</li> <li>• Full movement at-grade circle at Barney Circle</li> <li>• Extended 17<sup>th</sup> Street, Kentucky Ave, and M Street</li> <li>• Development of Reservation 13 Road from Barney Circle to Independence Ave</li> <li>• Redevelopment of SE Frwy between 11<sup>th</sup> St and Sousa Bridges as urban boulevard</li> </ul>	<ul style="list-style-type: none"> <li>• Alt 1- eight-lane urban boulevard</li> <li>• Alt 2 – four- or six-lane limited-access roadway</li> <li>• Alt 3 – at-grade four-lane roadway + depressed six-lane roadway</li> </ul>	<ul style="list-style-type: none"> <li>• Build conditions not yet determined</li> </ul>	<ul style="list-style-type: none"> <li>• Alt 1 – six-lane urban boulevard with at-grade intersections, a traffic oval, a traffic circle, a modified interstate interchange</li> <li>• Alt 2 – six-lane urban boulevard with a grade-separated overpass, a traffic oval, a traffic circle, a diamond interstate interchange, and a center-turn ramp interchange</li> </ul>

- South Capitol Gateway and Anacostia Access

Since this was a conceptual planning study, a 2030 No Build scenario was not needed in this study. The 2030 Build condition consisted of a six-lane South Capitol Street corridor from I Street to Suitland Parkway. South Capitol Street was downgraded in classification from an urban highway to a principal arterial, which reduced the assumed travel speed of the roadway in the travel demand model. Multiple design options at several locations along South Capitol Street were evaluated outside the travel demand modeling exercise.

- Middle Anacostia River Crossings Transportation Study

The 2030 No Build traffic conditions for this study consisted of the existing transportation network combined with 2030 traffic volume projections. Refinements were made to the existing roadway network in the MWCOG transportation network to ensure linkages to major roadways in the Middle Anacostia study area. The 2030 Build condition included the missing connections at several key locations within the study area, and full movements at major interchanges.

- Kenilworth Avenue Corridor Transportation Study

The 2030 No Build traffic conditions for this study consisted of the existing transportation network combined with 2030 traffic volume projections. Refinements were made to the existing roadway network in the MWCOG transportation network to ensure linkages from arterials to Kenilworth Avenue. Three Build conditions were analyzed with varying designs: (1) an eight-lane urban boulevard, (2) a four-lane or six-lane limited-access roadway flanked by access roads, (3) a combination of an at-grade four-lane roadway between Pennsylvania Avenue and East Capitol Street and a depressed six-lane roadway flanked by at-grade access roads from East Capitol Street to the DC/Maryland border.

- 11th Street Bridges Environmental Impact Statement (EIS)

The 2030 No Build traffic conditions for this study consisted of the existing transportation network combined with 2030 traffic volume projections. Refinements were made to the existing roadway network in the MWCOG transportation network to ensure linkages to roadways in Historic Anacostia, and Capitol Hill. The Build condition was taken from the Middle Anacostia Crossing Transportation Study recommendations, which include full interchange connections on both sides of the bridges. At the time of this writing, the Build conditions were still being developed based on comments from the EIS public scoping meetings.

- South Capitol Street Environmental Impact Statement (EIS)

The 2030 No Build traffic conditions for this study consisted of the existing transportation network combined with 2030 traffic volume projections. Refinements were made to the existing roadway network in the MWCOG transportation network to ensure linkages from arterials to South Capitol Street. Also 4<sup>th</sup> Street SW was assumed to be closed as proposed in the Fourth Street SW Transportation Study. The Build condition was taken from the South Capitol Street Gateway and Anacostia Access Study recommendations, which included a six-lane urban boulevard from I Street to Suitland Parkway. Two Build conditions were analyzed with varying designs: (1) an at-grade intersection at M Street, a traffic oval at Potomac Ave, a traffic circle at Suitland Parkway, a modified existing interchange at I-295, (2) a grade-separated overpass at M Street, a traffic oval at Potomac Avenue, a traffic circle at Suitland Parkway, a diamond interchange at I-295, and a center-ramp interchange at Martin Luther King Jr. Boulevard.

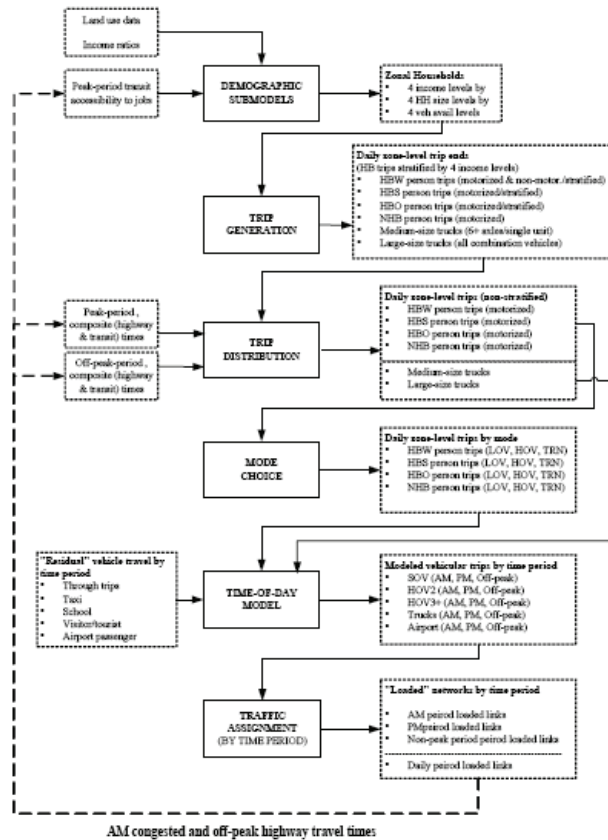
## Section 4.3. Development of Traffic Forecasts

Every road has a particular number of vehicles that are estimated to travel on it. What tells a regional model the most about a particular road are the activities around it. Every land use, whether a shop, a home, or an office, produces a certain number of trips. Based on national standards, each land use is assigned trip generation characteristics, how many and what type of trips are made to and from it every day. If, for example, a given traffic analysis zone contains a school, a 10-story office building, and one hundred homes, then the daily trips associated with each of those land uses are coded into the model and demonstrated in model outcomes. Once the model is run, then it is clearer how much traffic is forecasted to use the TAZ roadways. The following is a detailed description of how that process works.

According to the MWCOC travel model structure follows a defined process shown in **Figure 14** to develop traffic forecasts. The MWCOC travel demand model first uses demographic submodels to allocate the total number of households in a given zone among 64 cross-classes, defined as four income levels by four household size groupings by four vehicle availability groups.

The land use inputs to the model from the Cooperative Land Use Forecasting process results in TAZ-level households, population, group quarters population, and employment by four categories (office, retail, industrial and other). It is this information that is fed into the demographic submodels.

The trip generation and distribution models simulate daily person trips corresponding to four trip purposes: *Home-Based Work (HBW)*, *Home-Based Shopping (HBS)*, *Home-Based Other (HBO)*, and *Non-Home Based (NHB)*. The trip generation model estimates the number of trips produced by and attracted to each traffic analysis zone, based on the household, population, and employment data of the zone. The HBW trip rates reflect both motorized and non-motorized (transit, automobile, bicycle, and walk) person travel. Trip rates associated with the remaining purposes reflect motorized (transit and automobile) person travel only. The non-motorized component of HBW trip-ends generated is subsequently extracted from the total trip-ends prior to trip distribution. The trip generation process yields productions and attractions, which are divided by the four income levels for the home-based purposes, and remains undivided for the NHB and truck-related purposes.



**Figure 14. MWCOC Travel Model Structure**  
(Source: MWCOC, 2004)

The trip distribution model matches the trips produced in each zone with the zones to which they are attracted, and thus creates origin-destination pairs. This linkage is created using a standard gravity model formulation, so the origin-destination pairs are based on gravitation attraction (the pull one zone may have on another from a travel perspective), and travel distance. The trip distribution process results in six daily trip tables that correspond to the basic motorized person and truck purposes.

The mode choice model allocates the motorized person trips for each of the four purposes (HBW, HBS, HBO, NHB) among highway and transit modes (single-occupancy vehicle, high-occupancy vehicle, transit). A time-of-day model assigns daily vehicle trips among three time periods: AM peak period (6AM-9AM), PM peak period (4PM-7PM) and off-peak period (all remaining hours). The model consists of survey-based factors that are applied on the basis of purpose, mode, and trip orientation. The time-of-day model ultimately produces three “total vehicle” trip tables, one for each of the three time periods.

The traffic assignment model consists of separate assignment executions for each of the three time periods. Thus, trips are now assigned paths, and the model determines the best path in terms of time and distance for each origin-destination pair. The model also predicts factors that may trigger changes in travel behavior, such as congestion or transit subsidies. A link-level method of successive averaging process is applied after each successive highway assignment process to ensure converging highway volumes and speeds. Network links are thus loaded with restrained speeds and traffic volumes. This information is then recycled back to the trip generation and trip distribution steps for several iterations. The final iteration produces link-level traffic forecasts for the following time periods: daily volumes, AM peak period volumes, PM peak period volumes, and off-peak volumes. Individual intersection turning movement volumes are developed as part of the post-processing routines, which is performed outside of the model.

**Section 4.3.1 Example**

The following is an example of the MWCOG modeling process as applied to a traffic analysis zone within the AWI study area.

TAZ #175 is located on M Street SE between South Capitol Street and the 11<sup>th</sup> Street Bridges. This TAZ has the following land use characteristics, as taken from the Round 6.4A Cooperative Land Use Forecasts.

**Table 6A.** Round 6.4A Cooperative Land Use Forecasts for TAZ #175

TAZ	Population	Households	TOTAL Employment	Industrial	Retail	Office	Other
175	5,828	2,691	17,932	168	179	14,273	3,312

This TAZ is associated with development such as the Southeast Federal Center and the new USDOT Headquarters, which will represent a significant growth in employment and mixed-use development. The 2030 forecasts capture this growth.

When processed through the MWCOG Version 2.1D/TP+#50 Regional Travel Demand Model, the resulting trip information is as follows:

**Table 6B.** Resulting Trips for TAZ #175

Trip Type	TAZ	Person Trips				Total Person Trips
		Home-Based Work	Home-Based Shopping	Home-Based Other	Non-Home Based	
Productions	175	1,348	1,482	4,951	6,548	14,329
Attractions	175	26,061	47	9,672	6,548	42,328

Approximately 56,000 person trips are produced per day at TAZ #175, thus generating trips to travel throughout the regional network from this location. Approximately 42,000 daily trips are attracted to TAZ #175, which means that this many persons will travel to TAZ #175 throughout the day, mostly for employment.

The total number of person trips for TAZ #175 will be input into the trip distribution and traffic assignment modules of the MWCOG to determine the future traffic forecasts. The forecasts are spread across all highway links associated with the TAZ. For TAZ #175, a centroid from the TAZ will distribute vehicle trips to nearby streets – 1<sup>st</sup> Street SE, and M Street SE. Thus all trips in this zone will travel to and from the area via 1<sup>st</sup> Street or M Street.

For another example, TAZ #188 is located at the corner of South Capitol Street and M Street SW. This TAZ has the following land use characteristics, as taken from the Round 6.4A Cooperative Land Use Forecasts.

**Table 7A.** Round 6.4A Cooperative Land Use Forecasts for TAZ #188

TAZ	Population	Households	TOTAL Employment	Industrial	Retail	Office	Other
188	888	277	594	57	66	251	220

This TAZ has less population, households, and employment forecasts than in TAZ #175. This TAZ is mostly residential in nature. When processed through the MWCOG Version 2.1D/TP+#50 Regional Travel Demand Model, the resulting trip information is as follows:

**Table 7B.** Resulting Trips for TAZ #188

Trip Type	TAZ	Person Trips				Total Person Trips
		Home-Based Work	Home-Based Shopping	Home-Based Other	Non-Home Based	
Productions	188	155	166	681	195	1,197
Attractions	188	787	17	893	195	1,892

Only 2,900 person trips are produced per day at TAZ #188, thus generating trips to travel throughout the regional network from this location. Approximately 1,900 daily trips are attracted to TAZ #188, and 1,200 person trips are produced from this zone per day. This zone being mostly residential will produce and attract fewer trips than a zone with mostly employment characteristics. The resulting vehicle trips to and from this zone will travel on links near this zone, such as M Street and South Capitol Street.

This information can now be used by DDOT to determine future infrastructure needs for Near Southeast area, and for the planned development on the corresponding land area.

#### **Section 4.4. Review of System-Wide Future Volumes**

This section presents the analysis of future daily traffic conditions, based on the various traffic forecasts that were available during August, 2005. Maps of the 2030 traffic forecasts for the AWI transportation network are shown in **Figures 15 and 16**.

##### **Section 4.4.1. Source of Data**

The primary source of information for the traffic analysis was the major transportation studies completed and underway in the Anacostia Waterfront Transportation Master Plan study area. Only projects that proposed significant infrastructure work were examined to assess the traffic impacts of various transportation improvement projects. Not every study performed detailed travel demand forecasting or tried to determine other future traffic conditions.

Traffic data was obtained from three main projects, listed below:

- The Anacostia Access Study, led by Parsons Brinckerhoff. This project covered the South Capitol Street corridor from Anacostia to the SE/SW Freeway. Only the 2030 Build Conditions were assessed in this project.



- The Middle Anacostia Crossings (MAC) Study data was obtained from KCI Associates for the 2030 No-Build and Build Conditions. The river crossings that were analyzed included the 11<sup>th</sup> Street Bridges and the Sousa Bridge.
- The Kenilworth Avenue Corridor Study data was obtained from STV Inc. This project examined traffic flows under several different roadway configurations along Kenilworth Avenue from Eastern Avenue to the interchange with Pennsylvania Avenue. Their study analyzed 2030 No-Build and Build Conditions.

Another study that was examined but not used for the comparative analyses was the New York Avenue project. This project was not used for the comparative analyses because it did not provide overlapping traffic volumes for the study area and their future forecast year was 2025.

#### **Section 4.4.2. Assumptions**

For performing comparative analyses of the traffic data from the three studies, it is important to understand the assumptions that each study used for travel demand modeling. All projects assumed that 2030 was the horizon year for future traffic analyses.

The main factor is the order in which each study assumed that the other projects would be completed. The order impacted forecasted traffic flows. The studies assumed that the projects would be completed in the following sequence: the South Capitol Street corridor, the Middle Anacostia Crossings improvements, and then the Kenilworth Avenue projects. The forecasts for each study assumed complete build of the various elements of each previous study improvements. For example, the MAC study forecasts assumed that all of the 11<sup>th</sup> Street Bridges, Barney Circle and the Anacostia Freeway interchange with Pennsylvania Avenue would be complete. Consequently, the MAC study did not perform traffic forecasting when only one element was complete, but before the next element was under construction. Thus, any comparative analyses between the No-Build and Build forecast at one location should be performed with the caveat that other discrete locations have been reconfigured.

#### **Section 4.4.3. 2030 No-Build Condition Trends**

By not constructing the proposed improvements to the AWI transportation infrastructure, many of the same problems that we see today (lack of accessibility, inadequate multi-modal options, limited movements at interchanges and intersection) will continue to exist. The roadway network problems coupled with anticipated growth in traffic volumes will result in reduced traffic operations: increased congestion, increased vehicular delays, reduced vehicle speeds, and increased vehicle-pedestrian conflicts.

Traffic volumes for the 11<sup>th</sup> Street Bridges are projected to increase over the next 20 years from approximately 93,000 to 127,000 vehicles per day, an increase of about 37 percent. With the existing freeway operating at acceptable levels of service, such an increase in traffic volumes will deteriorate roadway operations on the 11<sup>th</sup> Street Bridges. Traffic volumes are forecasted to decrease on the Sousa Bridge (Pennsylvania Avenue) from 93,000 to 87,000 vehicles per day, a decrease of about six percent.

Kenilworth Avenue will have major increases in traffic volumes over the next 20 years, according to the traffic forecasts. Traffic volumes on Kenilworth Avenue from Eastern Avenue to Benning Road are projected to grow by 63 percent, from 92,000 to 150,000 vehicles per day. Traffic volumes on the section between East Capitol Street and Benning Road would increase from 99,000 to 138,000 vehicles per day, a 39 percent increase. South of East Capitol Street, traffic volumes on Kenilworth Avenue would increase by 45 percent, from 77,000 to 112,000 vehicles per day. Examining the river crossings, the East Capitol Street Bridge volumes are forecasted to increase over the next 20 years from 60,000 to 69,000, a 15 percent increase. Traffic on the Benning Road Bridge is projected to decrease by 20 percent, from 77,000 to 62,000 vehicles a day.

If no significant transportation infrastructure improvements are made, the trend in traffic in year 2030 reveals that traffic volumes will continue to increase on Kenilworth Avenue and the 11<sup>th</sup> Street Bridges. Although some traffic on the river crossings will decrease, more than likely due to congestion, traffic will divert to East Capitol Street Bridge, and the 11<sup>th</sup> Street Bridges. This will likely deteriorate traffic conditions not only on these river crossings, but also along adjacent arterials to these river crossings. Infrastructure improvements must be made to the 11<sup>th</sup> Street Bridges and Kenilworth Avenue so as to accommodate the anticipated traffic growth.

It is important to note that the South Capitol Street corridor was not considered in this analysis, as a 2030 No-Build scenario was not produced as part of the South Capitol Street Gateway and Anacostia Access Study.



**Figure 15.** 2030 No-Build Conditions for AWI Study Area  
 (Source: DDOT, Parsons Brinckerhoff, KCI, STV)

**Note:** 2030 No-Build forecasts were not developed for the South Capitol Street Gateway and Anacostia Access Study. The 2030 Build forecasts for this project are shown on this map.



## Section 4.4.4. 2030 Build Condition Trends

In reviewing the 2030 Build Condition trends, the South Capitol Street corridor improvements will not increase capacity of that roadway system, but were designed to improve pedestrian and cyclist mobility, enhance the streetscape, and replace the aging bridge. The downgrading of South Capitol Street from an urban highway to an urban boulevard has the potential to decrease travel speeds and traffic volumes. Forecasted volumes for the South Capitol Street corridor are projected to grow to 72,000 vehicles per day, which is only a 22 percent increase from existing traffic volumes.

The 11<sup>th</sup> Street Bridges would be reconfigured so that one bridge would carry interstate traffic from I-295 to the SE-SW Freeway, and the other bridge would carry local traffic from Anacostia into the residential neighborhood to the north of the SE-SW Freeway. The second major component would be new connections to and from Anacostia Freeway. This connection does not currently exist and has a major impact on the overall traffic flows. The new connection would separate local from interstate traffic as well as provide a new connection, all while taking advantage of the available roadway capacity. Overall, the access into the Washington core should be improved by this project, and traffic on the adjacent bridges should be reduced.

Once the bridges are reconfigured, volumes are projected to increase from approximately 127,000 to 209,000 vehicles per day, an increase of about 65 percent. The increase of traffic in this area is due to the shifting of traffic from I-295 and South Capitol Street Bridge onto the 11<sup>th</sup> Street Bridge. In addition, some traffic would shift from the Sousa Bridge (Pennsylvania Avenue) to the 11<sup>th</sup> Street Bridge, as traffic volume decreases from 87,000 to 75,000 vehicles per day, a decrease of about 14 percent. The biggest impact is seen on the SE Freeway between the 11<sup>th</sup> Street Bridge and Barney Circle, as the daily traffic volumes decrease from 54,000 to 25,000.

The Kenilworth Avenue project would reconfigure the roadway from Eastern Avenue to the interchange with Pennsylvania Avenue without adding capacity. Two major arterials that cross Kenilworth Avenue are East Capitol Street and Benning Road. This project is likely to increase the traffic volumes on Kenilworth Avenue from Eastern Avenue to Benning Road from 150,000 to 154,000 vehicles per day from No-Build to Build Conditions, a three percent increase. Traffic volumes on the section between East Capitol Street and Benning Road increase from 138,000 to 147,000 vehicles per day, by about seven percent. Volumes remain relatively the same on the section south of East Capitol Street. Examining the river crossings, the East Capitol Street Bridge volumes will decrease in the Build Conditions, from 69,000 to 64,000, a nine percent decrease. Traffic on the Benning Road Bridge should increase by two percent, from 62,000 to 63,000 vehicles a day.

**Figure 16.** 2030 Build Conditions for AWI Study Area  
 (Source: DDOT, Parsons Brinckerhoff, KCI, STV)





### *Section 4.5. Event Traffic*

In addition to understanding how new development and transportation improvements affect traffic on a typical day, DDOT also focuses on how the transportation system will handle the number of automobiles and pedestrians that a particular event will attract. DDOT's planning for the new ballpark in the South Capitol Street corridor provides an example of how the department considers the effects of events.

In order to account for what happens during particular events, DDOT generally performs a specific study to understand what the implications of a noteworthy new traffic generator will be on traffic flow. In the case of the potential new major league ballpark, DDOT added an appendix to its Anacostia Access Study. The appendix described specific assumptions about what could be expected during games, and analyzed the impacts on the surrounding traffic, as well as on the proposed infrastructure improvements.

Because several scenarios could be analyzed to determine the impacts of ballpark traffic on the Anacostia Access study area, the first step was to choose the most relevant scenario. For the purposes of the event analysis for the ballpark, to understand what would happen when traffic would be the most irritating to drive through and difficult to manage, a "worst-case" scenario was selected for analysis.

Developing the most representative worst-case scenario meant considering the ballpark impacts during the morning and evening peak hours. This step layered the impacts upon the peak-hour traffic volumes that had already been analyzed as part of the study. The result of this layering showed that weekday baseball games would be considered for the worst-case scenario because the weekday ballpark impacts were also likely to affect the evening peak hour.

DDOT developed the traffic forecasts for this worst-case scenario, and then could determine the amount of congestion that would occur at intersections, the time it would take to clear vehicles at various intersections, and the most direct route to divert traffic so as to avoid congestion. After analyzing the worst-case scenario, DDOT determined the future transportation improvements that would allow for traffic to flow reasonably well through the area during events. This finding was predicated, though, on traffic for the event being managed by District officials in order to avoid the bottlenecks identified during the first pass of analysis.

DDOT took the initiative in analyzing game day operations. The Sports and Entertainment Commission will be responsible for developing a ballpark traffic management plan and a ballpark traffic operations plan in accordance with DDOT standards so as to better address event-specific traffic impacts, and to effectively manage game day operations.

DDOT applies this procedure, an analysis outside the confines of the travel demand modeling activities, to event-specific traffic. Thus, event-specific traffic analyses are performed as part of the operational analysis in their transportation studies. The determination of specific events to include in the operational analysis of a particular project is made by DDOT based on the anticipated impacts of such an event.

### *Section 4.6. Conclusions*

The Build conditions of each study, with their complementary future traffic conditions, demonstrate that there will be shifts and changes in the Anacostia Waterfront-area roadways over the next 20 years. In some places, traffic volumes increase slightly, and in others the traffic decreases slightly. Most of the infrastructure improvements rationalize the transportation system, enabling regional connections that are now missing or rebuilding the roadway to suit the scale of the area through which it runs. The aim of the improvements is to make the entire system more responsive to the range of users— pedestrians, local drivers, regional drivers, cyclists— rather than simply moving more cars through the system faster. Traffic patterns will be shifted, but they should not diminish the overall quality of the transportation network. Although traffic levels will change, the overall mobility and accessibility in the area will improve.

### *Section 5. Summary of Findings*

This study was intended to make the federally mandated planning process clear and explain the logic behind the data used by DDOT. It is in response to community requests for DDOT to provide a better level of clarity and detail about its modeling process. The goal of this document is to assure the community that DDOT's planning has incorporated the proposed and planned developments in the AWI study area, and that infrastructure improvements have been planned and designed for the anticipated growth.

DDOT follows the federally mandated transportation planning process as outlined by the Transportation Planning Board. That process requires the use of the regional travel demand model and cooperative land use forecasts developed by MWCOG and officially adopted by the TPB. The TPB ensures that regional development and transportation infrastructure projects are approved through the official process, and that collectively these projects do not affect the air quality conformity of the region. The MWCOG travel demand model and cooperative land use forecasts are the backbone of this process.

All jurisdictions in the Washington, DC metropolitan region contribute inputs to the cooperative land use forecasts, including data on future growth that is expected from commercial, industrial, recreation, and residential development. The DC Office of Planning has the major role of providing input to MWCOG's modeling and forecasting committees for the District of Columbia. DCOP tracks development in the city and provides this information to MWCOG on a regular basis, so that model updates will contain the latest information.

During the investigation of the processes explained in this report, several findings became clear.

- ◆ Although MWCOG and DCOP may discuss their development forecasts in different ways, they are, in fact, working in concert concerning the land use data that is the foundation for planning studies.
- ◆ DDOT used the MWCOG models and cooperative land use forecasts in its transportation planning studies that make up the Anacostia Waterfront Initiative study area.
- ◆ DCOP provided information to MWCOG about what development it foresaw in the area.

The MWCOG model is the foundation for determining future traffic volumes and future traffic impacts. As studies move from conceptual level to full design and implementation, DDOT updates future traffic volumes and future transportation impacts using the latest MWCOG models and forecasts to ensure that anticipated development and infrastructure growth have been captured in its evaluation. In conclusion, a comprehensive look at the impacts affecting the city and region has occurred even in local transportation studies, just by the use of the federally mandated planning process and tools.

Estimating the future is an undertaking that necessarily involves leaps of logic and some amount of guesswork. DDOT has relied upon the best available information, proven models, and consistent assumptions to inform their decision making. This mobility study shows how DDOT, working with the District, MWCOG and OP, has comprehensively approached the issue of meeting future land uses and travel demand with suitable transportation infrastructure.



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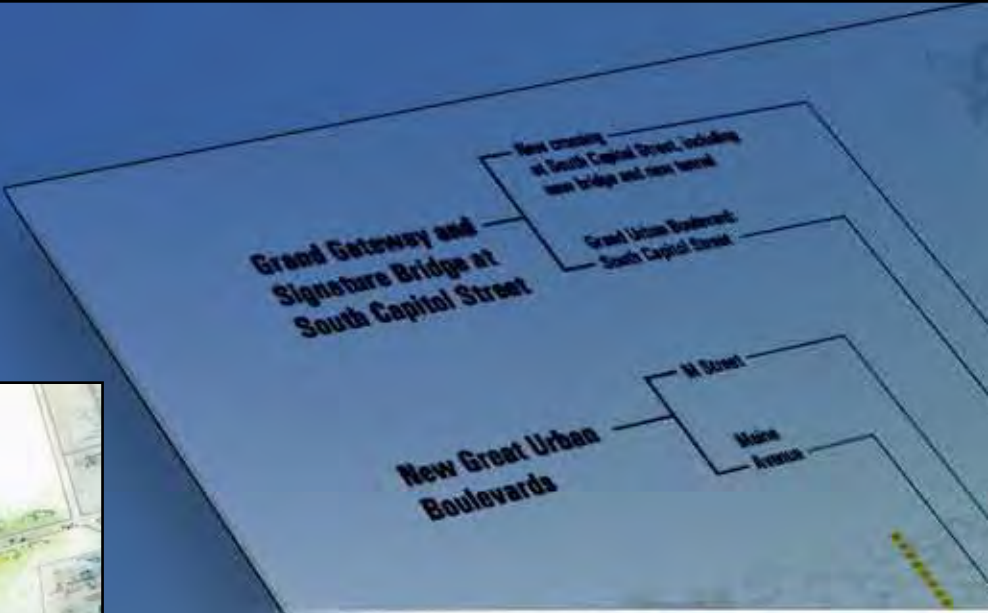
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