

### 2030 Background Volumes for Chapter 527 BRAC APR Applications

The background 2030 traffic forecasts for the BRAC APR analyses were provided to developers' consultants to maintain consistency in the forecasting process. The consultants were then required to overlay their site's traffic plus other sites in the cluster. The main objective was to produce reasonable link volumes, not exact 2030 turn volumes.

Applications were grouped into "clusters" based on professional judgment of the common transportation network elements impacted by the proposals. Turning volume traffic counts conducted by Fairfax County and the nominators' consultants during 2007 - 2008 at approximately 30 intersections throughout the subject area were used as the basis for future projections. Each cluster's existing AM and PM traffic counts (turns) were factored to 2030 by individual approach growth factors. Each approach had specific growth factors for the AM and PM hours. The growth factors were applied only to approach volumes, and not the departure end. The future turns were rounded to the nearest 50 vehicles and thus the link volumes from the summed turns were also rounded to the nearest 50. Both current volumes and projections were provided to applicants for their analyses.

The Fairfax County travel demand model was used to derive growth factors. This model is based on the Metropolitan Washington Council of Governments and the Transportation Planning Board (MWCOG/ TPB) travel demand model version 2.1D50, with additional detail for both road network and analysis zones. The MWCOG zone system in Fairfax County consists of approximately 350 zones and the Fairfax County zone system consists of approximately 1500 zones with additional streets to accommodate the new zones. The land use in the model corresponds to Round 7.0, modified to accommodate expected land use changes associated with BRAC. The transportation network used corresponds to the Constrained Long Range Plan (CLRP) network prior to 2008, but updated as necessary to correspond to any recent updates.

The MWCOG/TPB trip tables were split to the Fairfax County subzone system for both the base year 2000 and the 2030 CLRP scenarios and assigned to their corresponding networks (the 2000 network was created with the assistance of extensive aerial photography and local staff knowledge). The 2030 assigned links volumes were divided by the 2005 assigned link volumes to create the approach link growth factors. These growth factors were adjusted for the appropriate years of growth (the model base year was 2000 and the counts were year 2008). The growth factors also served to help adjust the raw traffic assignments.