

Coverage Count Program

There were 3,286 roadway segments or links on the Road Inventory network of DelDOT in 2003. Of these, there are 74 links where the ATR stations were operational, accurate hour by hour traffic volume data were continuously recorded throughout the year, processed, and analyzed. For the remaining 3,212 links, the annual traffic data was estimated on the basis of a short-term traffic count or coverage count program along with the statistical information acquired from the permanent ATR stations.

The coverage count program in Delaware has recently been revised, allowing for complete coverage of the Road inventory network on either an annual, three or six year cycle. The advent of this schedule of traffic data collection requirements, insures accurate data on all roadway segments in the Road inventory network. This schedule still allows for an average of 800 short-duration data collection sites, of which approximately 600 are volume counts performed for a one week period. The remaining 200 counts are vehicle classification counts, performed for a 48 hour duration, mainly at HPMA locations. This schedule of data collection requirements will result in greater than 800 short-duration data collection sites per year throughout the roadway network, and will ensure the availability of timely traffic data. Pneumatic rubber hoses, which count axles and not vehicles, are employed in the coverage count program. Since the number of axles in motor vehicles are variable, appropriate Axle Correction Factors (ACF) are applied to convert the counted axles into the number of vehicles. The Axle Correction Factors are derived from the vehicle classification program, both short-term and at permanent sites.

Furthermore, the ADT over a period of one week is obtained in the coverage count program. In order to estimate the AADT, there is a need to multiply by Seasonal Adjustment Factors (SAF), because the weekly traffic varies over the span of a year.

$$\text{Thus, ADT} = \text{Coverage Count} * \text{ACF}$$

$$\text{And, AADT} = \text{ADT} * \text{SAF}$$

The SAF in this case pertains to the particular month of the year in which the coverage count is conducted. Based on the recorded data retrieved from ATR stations, the SAF for each of the 12 months of the year, computed for all Traffic Pattern Groups, is calculated and stored in the traffic monitoring database. The applicable SAF was used in the determination of AADT at all of the 800 + coverage count sites for 2003. For those highway links of the Road Inventory network not counted in 2003, the AADT data were obtained by multiplying previous year's AADT with the applicable Growth Factor.