



**WEST VIRGINIA DEPARTMENT OF TRANSPORTATION**

**Division of Highways**

1900 Kanawha Boulevard East • Building Five • Room 110  
Charleston, West Virginia 25305-0430 • 304/558-3505

Bob Wise  
Governor

Fred VanKirk, P. E.  
Secretary/Commissioner

May 24, 2004

**Mr. Patrick M. Parsons**  
Executive Director  
Asphalt Pavement Association of West Virginia  
2114 Kanawha Boulevard, East  
Charleston, West Virginia 25311

Dear Mr. Parsons:

The West Virginia Division of Highways has been using the Superpave Mix Design System on a limited basis since 1997. Our policy has always been to attempt to stay within the Superpave System parameters and make periodic updates as modifications are made to the standard design specifications. However, Superpave is still an evolving system and we will continue to evaluate it for our needs and make any adjustments that may be required to assure that it works with our local materials.

One such adjustment that we feel is now necessary is to modify the fine aggregate angularity requirement referenced in TABLE 401.02.28D of MP 401.02.28 for mixtures designed at three million ESALs or greater within the top two lifts of the pavement structure. The sole purpose of the current 45% minimum requirement is to assure that the fine aggregate has the necessary angularity to provide aggregate interlocking that will help prevent pavement rutting caused by the movement of the aggregate particles under traffic loads. Several states have discovered that some of their local sources of 100% crushed aggregate do not always meet the specified 45% requirement. West Virginia is one of those states. We occasionally see commonly used 100% crushed aggregates that test out in the 43 to 44% range, even though our own experience with these materials have shown that they perform very well and provide us with quality rut-resistant pavements.

The National Superpave Mixture and Aggregate Expert Task Group has been looking at this issue and studying alternative test procedures that might be used to evaluate the angularity of fine aggregates. Such studies take time to develop into usable information that may result in changes to standard specifications.

The WVDOH does not want to prohibit the use of local angular aggregates that have provided us with quality pavements over the years. For this reason, effective immediately, we have made the decision to lower the fine aggregate angularity requirement for mixtures designed at three million ESALs or greater within the top two lifts of the pavement structure to a minimum of 43% for mixtures composed of 100% crushed fine

**Mr. Patrick M. Parsons**

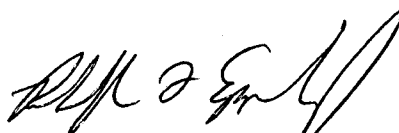
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**aggregate blends. Mixtures composed of fine aggregate blends containing rounded natural sands or any similar materials will still be required to meet the 45% minimum criteria.**

**The Materials Control, Soils and Testing Division (MCS&T) will be including this specification change for fine aggregate angularity in the soon to be issued update of MP 401.02.28. Please pass this information on to the appropriate members in your association. If anyone has any specific questions relating to this matter, you may contact Mr. Larry Barker, MCS&T Division, at 304-558-3060.**

**Very truly yours,**



**Randolph T. Epperly, Jr., P.E.  
Deputy State Highway Engineer –  
Development**

**RTE:Gw**