

Arizona Discussion Topics – 2003

1. Status of Superpave implementation

Arizona DOT has no changes to implementation plans. The PG binder specification has been fully implemented since 1997. Superpave mixture design is utilized for approximately 25% of our projects, there are no immediate plans for change.

2. PG binder grades

Arizona DOT primarily utilizes the following PG binder grades for dense graded HMA: PG76-16 (PAV 110), PG70-10 (PAV 110), PG 64-22 (PAV 100).

In addition, the following grades are used as base asphalt for asphalt rubber (all are PAV 100): PG64-16, PG58-22, PG52-28 (very infrequent).

Arizona DOT does not utilize any plus type specifications, except for occasional special projects. We have no plans to implement MP-1a.

3. Chemical Modification

Arizona DOT is not currently concerned with the issue of chemical modification of binders and does not have any specifications that address this. It is our understanding that we have been utilizing acid modified binders for several years and have no known problems.

4. Low binder content superpave mixes

Arizona DOT does not believe that the superpave mixes that we are utilizing are under asphalted. We do not currently do any additional testing to evaluate this. Our modified procedure typically designs mixes at 5% air voids and increases the minimum VMA by 0.5% (and places a cap on VMA, 2% above the minimum).

5. Aggregate durability/Micro Deval

The only test that the Arizona DOT utilizes for aggregate durability is LA abrasion. We have a Micro Deval device and have done only limited looking at it.

6. SMA

Arizona DOT does not routinely utilize SMA.

7. Longitudinal joints

Arizona DOT has not seen extreme performance problems with longitudinal joints. Even so we feel there is lots of room for improvement in longitudinal joint construction and have on a trial basis utilized a longitudinal joint specification on several projects (modeled after Colorado DOT's specification).

8. Paver related / temperature segregation

The Arizona DOT has seen some paver related segregation, but it does not consider it a significant problem systemwide. Our specifications contain a statement that the pavement should be free from segregation that is difficult to enforce.

Temperature segregation is not considered a significant problem by the Arizona DOT and we have no specifications to address it.

9. EPA / legislative changes

We are not aware of any recent or pending changes that impact HMA.

10. Most significant issue

Arizona DOT feels the single most important issue related to the quality of HMA is compaction.