

3300000 HOT MIX ASPHALT – GENERAL CONSTRUCTION REQUIREMENTS  
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

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Comments: (6-27-11) We recommend the following is added to 330-2, “Ensure the accuracy of the QC Road Reports on the Department’s approved form to reflect the actual surface area of the finished work and in compliance with the requirements of the Contract Documents.”

Response: Agreed. The recommended wording was added to subarticle 330-2.

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Cheryl Hudson  
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Comments: (6-27-11)

1. **330-3.2.4:** Who decides if the conditions will diminish bond between layers? Is there a criteria, touch test or max depth of debris, etc?

*330-3.2.4 Wind: Do not place the mixture when the wind is blowing to such an extent that proper and adequate compaction cannot be maintained or when sand, dust, etc., are being deposited on the surface being paved to the extent that the bond between layers will be diminished.*

Response: Unfortunately, there are no definitive criteria to define the quantity of sand, dust, etc. that will diminish the bond between pavement layers. There are too many variables that would make specifying this very difficult. The determination of excessive contamination will have to be determined by the Engineer for that project on a case-by-case basis. No change made.

2. **330-5.1:** Suggest striking “that is” and adding “and”.

*330-5.1 General Requirements: Use equipment that is mechanically sound (~~free from leaks, etc.,~~ ~~that is~~ and capable of consistently meeting the requirements of these Specifications.*

Response: Agree. The suggested wording has been incorporated.

3. ~~330-129.3.1~~ **Quality Control Requirements:** The paragraphs below have Quality Control abbreviated as QC for the first couple of times and then not after; is this intentional, or an oversight?

~~330-129.3.1~~ **Quality Control Requirements:** Calibrate the electronic levels a minimum of once per day before ~~any~~ paving ~~operation~~ *operations begin*, in accordance with manufacturer’s instructions.

Compare the **Quality Control** level with the Verification level before any paving ~~operation~~*operations begin*, and at any time *as* directed by the Engineer. If the comparison between the **Quality Control** and Verification levels is within the comparison tolerance of plus or minus 0.2%, the **Quality Control** level is considered to compare favorably and can be used for measurement and acceptance of cross slopes. If the levels do not compare favorably, perform a second comparison using another calibrated electronic level (FDOT or Contractor) for resolution. If this resolution level compares favorably with the **Quality Control** level, the **Quality Control** level is considered to be verified. If the second level does not compare favorably with the **Quality Control** level, discontinue the use of **the Quality Control** electronic level and obtain another approved electronic level that meets the requirements of this specification. Regardless of the comparison analysis outcome, the Contractor assumes all risk associated with placing the pavement at the correct cross slope.

**Response: Agreed. This is an oversight and has been corrected for consistency.**

4. While these changes are being processed, is there anything for the “safety edge” that could/should be added at this time to 330 or 320? Personally, I really think this reorganization is a real improvement.

**Response: Thank you for the comment. The “Safety Edge” specification wording will be incorporated as a Special Provision to this specification at the direction of Central Office.**

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Comments: (7-6-11)

330-2 Under Pavement Density the first sentence talks about monitoring temperature which is the next activity.

**Response: The temperature reference the reviewer is referring to is intended to be related to monitoring temperature to ensure adequate compaction temperatures. The wording has been revised to make this clear.**

330-2 Personnel Qualifications needs to be re-numbered to 330-3.

**Response: This subarticle related to qualifications for QC technicians is numbered 330-2.2, as it is part of Quality Control requirements.**

330-3.2.1 Delete “laid” and replace with “paved” or “placed”.

**Response: Agreed. Replaced “laid” with “placed.”**

330-5.2.3 Suggest re-arranging the wording in the first sentence to read better. “Provide asphalt pavers that have a screed width greater than 8 feet when required to pave full lane widths.”

**Response: Agreed. Wording modified as suggested.**

330-9.5.1.1 Last paragraph; Change “option” to “exception” for consistency

**Response: Agree that the non-consistent wording needs to be corrected. However, “exception” was changed to “option” since this is an optional method of correction.**

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David Church  
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Comments: (7-7-11) 330-9.2 Please consider adding an exception for non-density areas. This would eliminate any issues where the contractor would be required to cut cores in hand worked areas for segregation. These areas are non density for a reason, and that is because they are not accessible with mainline paving practices, and the texture spec should recognize this exception.

Response: Agreed. Wording as been added to except areas in non-density locations as defined in 334-5.1.2.

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Don Duffy  
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Comments: (7-12-11)  
330-9.1 Texture of the Finish Surface of paving layers.  
It states regardless of pavement types produce a pavement free of segregation. There needs to be some more language to it. For instance what if it in overbuild/variable thickness or cross slope corrections and leveling courses. all of these types of paving are acceptable to segregation due to aggregate size and thickness of the layer of asphalt. The may want to add some exceptions to this spec change.

Response: Agreed. Wording as been added to except areas in non-density locations as defined in 334-5.1.2. These exceptions will include the areas that Mr. Duffy mentions in his comment.

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Comments: (6-29-11) The District Bituminous Office has reviewed these Specification changes, and we have no outstanding comments. I only found a minor typo to correct on Spec *330-6.1.3 Mix Temperature. Maintain the temperature of the mix at the time of paving within the master range as defined in 320-6.3. The minimum frequency for taking mix temperatures on the roadway will be as indicated in 320-6.3. Any load or portion of a load of asphalt mix on the roadway with a temperature outside of the master range shall be rejected for use on the project. ~~The Engineer will be~~ Immediately notified the Engineer of the rejection. This last sentence should say “notify.”*

Response: Agreed. “Notified” has been changed to “notify.”

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Roger Owens  
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Ajax Paving Industries of Florida, LLC

Comments: (7-8-11) **330-129.2 Texture of the Finished Surface of Paving Layers:** Produce a finished surface of uniform texture and compaction with no pulled, torn, raveled, crushed or loosened portions and free of segregation, bleeding, flushing, sand streaks, sand spots, or ripples. Address any pavement not meeting the requirements of this specification in accordance with 330-129.5.

*Regardless of pavement type, produce a pavement free of segregation. For dense graded structural and friction course mixtures, obtain for the Engineer three 6 inch diameter roadway cores at locations visually identified by the Engineer to be segregated. The Engineer will determine the density of each core in accordance with FM 1-T 166 and calculate the percent  $G_{mm}$  of the segregated area using the average  $G_{mb}$  of the roadway cores and the Quality Control subplot  $G_{mm}$  for the questionable material. If the average percent  $G_{mm}$  is less than 90.0, address the segregated area in accordance with 330-9.5*

This seems to be left to opinion rather than science. We seem to disagree quite often on what is segregation and what is a shadow.

Response: It is agreed with the reviewer that there will be inconsistencies between different Engineers and Contractors as to what constitutes a segregated surface. This often occurs in other areas of construction, too. The goal with this specification is to minimize end-of-load segregation, which has become a common occurrence on Department maintained roadways. It is envisioned that there will be an adjustment period needed as Engineers/Project Inspectors get accustomed to the correlation between what constitutes a segregated surface visually and what tests to be low density. The purpose of the density measurement on the cores is to remove subjectivity in defining the areas needing removal and replacement. Implementation of this subarticle will be monitored by the SMO and adjustments to it will be made as necessary.

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Comment: (7-8-11) The spec below eliminates the option to mill down a high spot on the structure when using open graded friction. I don't see any reason for this seeing that some projects direct you to place open graded on a milled surface.

**330-129.5.1.1 Structural Layers:** Correct all deficiencies, as defined in these Specifications, in the Type SP structural layers by one of the methods described below: *removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides (where possible) of the defective area for the full width of the paving lane.*

- a. Remove and replace the full depth of the layer, extending a minimum of 50 feet on both sides (where possible) of the defective area for the full width of the paving lane.
- b. Mill *As an exception, for straightedge deficiencies, mill the pavement surface to a depth and width that is adequate to remove the deficiency. (This option only applies if the structural layer is not the final surface layer.) This option does not apply to the final structural layer where the final surface layer will be an open-graded friction course (FC-*

Response: Agreed. The following wording will be deleted: "This option does not apply to the final structural layer where the final surface layer will be an open-graded friction course (FC-5)."

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