

334LAP Hot Mix Asphalt for LAP (Off-System)
COMMENTS FROM INTERNAL/INDUSTRY REVIEW



Sergio J Figueroa
Resident Special Projects Coordinator
FDOT, Orlando Construction
Tel 407 482 7828
Fax 407 275 4187

Comments: (11-14-11)

These LAP specifications are the old specs used before the CQC process came into our new standard specifications. Some minor word adjustments has been proposed in order to get a little close to our present specs. However, my experience with LAP projects is that mostly the plans used in these projects reference to our standard specs (2007/2010) . This language in the plans conflict with the LAP (off system) specifications.

Response: The issues with the plan notes need to be addressed with the Designer. Unfortunately, FDOT does not have control over that. The LAP specs are to stand alone.



Jim Musselman
State Materials Office
(Comments from Industry Meeting)

Comments: (11-17-11)

General issues – This spec is meant to eliminate QC testing but does not speak to the requirements of 327, 330, and 337. Perhaps this spec should be under a separate number and specific sections of the other specs can be combined or eliminated by reference.

Response: Agree. Added language to 334-1.1.

334-1.2 Work category 1 should include misc asphalt. Consider eliminating this category and just make it an exception area.

Response: Agree. Added language 334-1.2.1.

334-1.3 Traffic level – no one really uses “A” if eliminating it is not an option at least allow level “C” substitution.

Response: Disagree. Lower volume roads (which would include a bike path) should be designed as a traffic level A mixture.

334-1.4 Counties and cities are still using “S” mixes, would a reference here stating “S” equivalents benefit?

Response: Agree. Added language to Table 334-1.

334-1.5 would a simple figure of say 105 lb/sy be simple and adequate for construction?

Response: Disagree. Based on a wide range of aggregate gravities used in Florida, this will not be possible.

334-3.2.1 consider adding language stating that any FDOT approved mix design is automatically approved.

Response: Agree. Added language to 334-3.2.1.

334-4 Consider eliminating the section all together

Response: Disagree. Contractor needs to provide process control testing.

334-5.5.2 this should read place patching or leveling courses as directed or as stated in the plans. The current statement says to place leveling if the surface is irregular whether in the plans or not. This statement can be misinterpreted in a lump sum contract.

Response: Agree. Added language to 334-5.5.2.

334-5.5.4 change 3rd sentence to Determine the rate of application as needed to control the operation.

Response: Agree. Modified language in 334-5.5.4.

334-5.6.3 consider language that would require checking and adjusting frequently. Add language later in spec about spread rate checks, perhaps in 334-5.6.6.

Response: Modified language in 334-5.6.3 and 334-5.6.6.

334-5.9.1 consider eliminating the 3/16 tolerance here. There is no separate reference to end job joints and most of these jobs are overlays.

Response: Agree. Added language to 334-5.9.1.

334-5.10.3 Consider different language – Currently rolling straightedging is not occurring. Crews provide rigid for joint construction and the owners are performing visual.

Response: Agree. Modified language in 334-5.10.3.

334-5.10.3.1 Category 3 usually includes turn lanes, turn outs, side street connections, this category needs the exceptions. Consider opening the tolerance a bit to 4/16”.

Response: Disagree. Subarticle 334-5.10.3.3 lists numerous exceptions to straightedge testing. However, for the areas that do get tested, 3/16" will remain as the tolerance.

334-5.10.3.2 these categories are typically straightedge exceptions, why are we giving the option

of testing something that would not normally get tested.

Response: Agree. Modified language in 334-5.10.3.2.

334-5.10.4 this may be a good opportunity to let the contractor determine how much to R&R to make a correction.

Response: Agree. Modified wording in 334-5.10.4.

334-6 acceptance – no issue with the certification but considering there is no QC I don't really see a value. Consider the use of the independent testing lab to provide acceptance testing. Test lab can either be hired by the owner or the contractor and they can sign and seal the results.

Response: Response: Many agencies will likely hire an independent testing lab for acceptance testing for Category 3 pavements.

Process control is going to happen not sure I understand requiring it in a situation where we don't want QC required. Consider the removal of the requirement of process control.

Response: Disagree. PC testing results are part of the acceptance for Category 2 pavements and would be essential to enable the Contractor to certify Category 1 pavements.

Work Categories

Really cat 1 & 2 would normally be exceptions to the density requirement but would still require extraction gradation testing. Don't know that there would really be an issue with have plant samples pulled each day material is shipped to the project and density testing only on mainline travel lanes. Coring or nuc densities can be performed by the test lab when and where required.

Response: Do not see the conflict with the comment as compared to the specification.

Would like to see sampling done at the plant for all the obvious reasons.

Response: Agree. Plant testing is currently specified.

334-6.3.1 Density testing frequency – consider testing every 1000-1500 lineal feet of mainline paving with a minimum of 3 tests per day

Response: Agree. Modified language in 334-6.3.1.

334-4 Table – Consider using the values shown in the old option 2 spec: 0.75% AC, 10% #8, 3.5% dust, and 90% density. I am agreeable to 91% with no individual test “minimum”. Some of these low volume roads are in such poor shape we are unable to compact as much as we would like.

Response: Partially agree. Modified single core density level to minimum 88% Gmm.

334-6.4.1 exceptions – cross overs and intersections have been removed. Would like to see them replaced as they do happen occasionally.

Response: Agree. Crossovers had actually been moved out of the 1000' criteria and just listed as an exception, regardless of length. Intersections were inadvertently removed and have been added back in to the specification as an exception.

Ajax

Comments: (11-17-11)

The compaction goes up to 91.5 minimum daily average (normal specs 90.0 on a sublot average). Also, one core cannot be below 90% ever. Why is LAP spec more stringent than the normal 334 specs?

Response: Partially agree. Lowered one core minimum density to 88% Gmm. Did not lower daily average, since density levels near 90% are not desirable. The target for the standard 334 spec is 93% (92% for static compaction) and uses PWL. 90.0 is only an absolute minimum prior to removal and replacement, but is not a target. The PWL and bonus system will keep the average density level higher than 90.0%, but the LAP spec does not have PWL and a bonus, therefore the minimum was raised to 91.5%.

334-6.3

- a. The added LAP language for dealing with a failure reads; “*Material failing to meet these acceptance criteria will be addressed as directed by the Engineer*”. The local office’s (counties, cities, etc.) have little, to no experience with Superpave & Friction. Can some type of language be added to incorporate the local FDOT District Materials Office? We’ve seen it before where a county or city office will see RED on a report, and believe that we need have the material evaluated or removed.

Response: Agree. Language was added to address the various options.

- b. We need some sort of resolution process for failure/out of tolerance material. This will be like going back to the old days were one test results accepts all the in place material. Our concern is the people they will have testing and the handling that goes with it. There are way too many variables in HMA that can skew a test result, in which, we have become the experts on these processes.

Response: Disagree. At this time, a resolution process will not be included, however, options have been provided to allow for evaluation of material represented by a poor test result. If problems related to no formal Resolution system appear frequently, then this can be added in a future revision of this specification.

I’m not sure why the Department even wrote the LAP spec this way since QC still has to perform the same test under the process control guidelines of this spec. Can they include an option that

the contractor performs acceptance testing?

Response: Contractor test results are used for Categories 1 and 2 pavements. For the higher profile Category 3 pavement, if Contractor test results are used for acceptance, then there would need to be some sort of verification of these test results, which would essentially be the standard 334 specification. At this time, the Department prefers to remain with the system currently specified.

This is major concern for us as the testing consultants out there don't know what they're doing with HMA. Most of them are respectively good at EWK & CNC, and have little experience with HMA handling & procedures.

Response: No comment.
