The following new Section is inserted after Section 320.

SECTION 325
REPAVED ASPHALT CONCRETE PAVEMENT

325-1 Description.
Construct a repaved asphalt concrete pavement consisting of a binder course layer and a friction course layer, by one of the following two options:

1. placement of a binder course layer and friction course layer using a paving machine capable of simultaneously recycling the existing asphalt using the hot-in-place process for the binder course layer and placing plant-produced hot-mix asphalt for the friction course layer, or by

2. placement of plant-produced hot-mix asphalt binder course and friction course layers placed as two separate paving operations. Regardless of which process is used, use an approved FDOT dense-graded friction course mix design (meeting the requirements of Section 337) for the friction course layer. For all work, the applicable requirements of Sections 300, 327, 330, 334, 337, 901, 902, and 916 only apply as noted herein.

325-2 Hot Mix Asphalt Materials.

325-2.1 General Requirements: The following materials requirements apply only to the plant-produced hot-mix asphalt binder course layer, if used. Mix design requirements for the friction course layer are specified in Section 337.

325-2.2 Asphalt Binder: Meet the requirements of Section 916. Select the asphalt binder grade in accordance with Table 334-2.

325-2.3 Aggregate: Meet the requirements of Section 901 for coarse aggregate and Section 902 for fine aggregate.

325-2.4 Reclaimed Asphalt Pavement (RAP) Material: RAP may be used as a component of the asphalt mixture with no limit.

325-3 General Composition of Mixture.
The following mix design requirements apply only to the plant-produced hot-mix asphalt binder course layer, if used. Compact the mixture using a Superpave gyratory compactor in accordance with AASHTO T 312-12. Utilize a design number of gyrations of either, 50, 65, or 75. The design air void content shall be within the range of 3.5 to 4.5%. The minimum voids in the mineral aggregate shall be 12.0%. The minimum effective binder content shall be 4.5%. Furnish a copy of the mix design to the Engineer prior to any paving work. During production, the Contractor may revise the mix design provided the previous design requirements are met. Submit mix design changes to the Engineer for informational purposes only.

325-4 Construction.

325-4.1 General Requirements: Prior to commencing construction operations, repair all defective portions of the existing pavement as indicated in the Contract Documents. The minimum air temperature required for paving operations is 50°F. Clean the pavement such that it
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is reasonably free from loose materials, sand, dirt, caked clay and other deleterious substances. Remove and dispose of all reflective pavement markers. Remove all thermoplastic striping prior to hot-in-place recycling operations.

325-4.2 Milling: If a recycled binder course layer and plant produced friction course layer is used:

   Option 1, use the cold milling process per Section 327 to remove the upper layer(s) of asphalt above the binder course layer. If a plant-produced hot-mix asphalt binder course layer is used, followed by the placement of a plant produced friction course layer as a separate operation

   Option 2, use the cold milling process per Section 327 to remove the upper layer(s) of asphalt, including the binder course layer.

325-4.3 Tacking: If a recycled binder course layer and plant produced friction course layer is used:

   Option 1, tack is not required. If a plant-produced hot-mix asphalt binder course layer is used, followed by the placement of a plant produced friction course layer as a separate operation

   Option 2, apply a tack coat to all pavement layers in accordance with Section 300.

325-4.4 Compaction: Utilize a rolling pattern that will provide sufficient compaction to assure the performance requirements of Section 338C are met.

325-4.5 Additional Requirements: When construction includes the paving of adjacent shoulders (equal to or less than 5 feet wide), the top pavement layer for the travel lane and shoulder must be paved in a single pass, unless called for differently in the Contract Documents.

325-5 Contractor's Process Control.

325-5.1 General: Provide adequate process control to assure all materials and products furnished to the Department conform to the Contract requirements, and will meet the performance requirements of Section 338C.

   Perform the following process control operations, as a minimum:
   a. Depth determination (uncompacted mix) once per 100 feet.
   b. Determination of pavement thickness per 325-5.2.
   c. Determination of the rejuvenator quantity when using the hot-in-place recycling process. Assure the correct rejuvenator quantity is used, as specified on the hot-in-place recycled mix design.
   d. Smoothness, meet the requirements of 330-9.4.

325-5.2 Pavement Thickness when Using the Hot-In-Place Process: The thickness specified in the Plans shall be the compacted in-place thickness. The thickness shall be determined by the daily average measurement of roadway cores. Obtain cores at locations determined by the Engineer at a frequency of five cores per day or one core per 1,000 feet (whichever is less) following the placement of the friction course layer, regardless of which option is used. Measure the combined thickness of the binder course layer and friction course layer. Spread rate thickness requirements of Section 330 do not apply. Maintain the average thickness within 1/4 inch of the combined thickness of these layers, as shown in the Plans. If the average thickness is deficient by more than 1/4 inch but no more than 1/2 inch, take appropriate corrective actions. If the average thickness is deficient by more than 1/2 inch, take additional cores to determine the area of deficient thickness. Core spacing to determine areas of deficient thickness shall not be less than 100 ft apart, unless approved by the Engineer. Correct any area deficient in thickness by more than 1/2 inch at no cost to the Department. If the average
thickness is deficient for two consecutive days by more than 1/4 inch of that specified in the Plans, stop construction activities until adjustments are made to the operation that will allow placement at the specified depth. Continued operations when the thickness is deficient by more than 1/4 inch of the thickness specified in the Plans will not be allowed.

As an exception, the Engineer may allow the Contractor to leave deficient areas in place if it is determined by the Engineer the deficiency is not a significant detriment to the pavement quality. The Department will reduce the pay quantity for the pay item in question by the amount of material the Contractor would have removed and replaced had the Contractor performed the work in accordance with the Contract Documents.

325-5.3 Corrective Actions: Take prompt action to correct any errors, equipment malfunctions, process changes, or other assignable causes which have resulted or could result in the submission of materials, products, and completed construction which do not conform to the requirements of the specifications.

325-6 Acceptance

The pavement will be accepted based on the following:

a. Pavement thickness - The Engineer will verify the pavement thickness by observing the process control pavement thickness measurements, as described in 325-5.2.

b. Smoothness - The Engineer will verify the straightedge testing by observing the process control straightedging operations, as described in 325-5.1.

There will not be acceptance testing for any hot-in-place recycled mix or plant produced hot mix asphalt other than pavement thickness and smoothness, as described above.

325-7 Allowable Number of Times for Repaving

When using the hot-in-place process:

Option 1, the pavement may be repaved a maximum of two times; once for the original repave operation and once for any defective material repair. The second repave operation must meet all of the requirements of this specification. After the second repave, any further repairs must utilize the

Option 2, placement of plant-produced hot-mix asphalt binder course and friction course layers placed as two separate paving operations.

325-8 Method of Measurement.

Regardless of which option is used, the quantity of the repaved asphalt concrete pavement (including both the combined binder course layer and the friction course layer) to be paid for will be the area in square yards, determined by plan quantity, completed and accepted. There will be no pay adjustments for the bituminous material for this item. Pay factors described in 334-8.2 do not apply for the friction course layer.

325-9 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section. Payment will be made under:

Item No. 911-325-1 Repaved Asphalt Concrete, per square yard.