

Federal Highway Administration

Process Review and Evaluation
for
Statewide Hot Mix Asphalt (HMA) Pavement Construction

I. GENERAL INFORMATION

- A. Project Number _____
- B. County _____
- C. Project location _____

D. Contractor _____

E. Contract Amount _____

F. Date of Inspection _____

G. Resident Construction Engineer - _____

H. FHWA Inspection Team:

I. State Participants:

J. Per cent work complete: _____, Per cent time elapsed: _____

K. References

State Department of Transportation
Specifications
Supplemental Specifications #SS 1070 dated
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FHWA Technical Advisory T5040.27
Project Special Provisions
19XX HMA Plant Inspection Manual.
Project plans with typical plan sheets and notes.
Materials Department
I.M. 204 Testing Schedule
I.M. 213
I.M. 214
Construction Manual Section 2.53
Chapter 3
Chapter 8

L. General Information:

HMA Mix	Binder	Surface
Size	_____	_____
Type	_____	_____
Class	_____	_____
Grad. No.	_____	_____
AC Grade	_____	_____
Additives	_____	_____
Depth of Pave.	_____	_____
Lift Thickness	_____	_____
% RAP Material	_____	_____

II. GRADE

- A. Has equipment been checked for compliance with Standard Spec # 2001?

2001.19 HMA finishing machine.
2001 .05 Rollers
2001.03 Trucks.

- B. Has sub-grade, subbase or lower course been properly prepared?
1. Surface area clean and free of moisture.
 2. Tack coat 0.02 to 0.05 gal/s.y.
- C. If cool day, what is road surface temp. See 2303.20 for limitations?
- D. Is there a wire or string line to guide the finishing machine to maintain alignment?
- E. Compacted top layer thickness <2".
Compacted lower layer thickness <3".
- F. Does the forward speed of finishing machine provide the least amount of stopping?
- G. Are there an adequate number of trucks to provide a continuous delivery of HMA to the spreading unit?
- H. Is the paver hopper kept sufficiently full to prevent non uniform flow of mixture through the control gate to the augers and screed?
- I. Is the level of material kept at a near constant level in the augers?
- J. Is the temperature of the mix uniform and in proper range?

Layer thickness < 1.5" then temperature must be > 245 degrees Fahrenheit
Layer thickness > 1.5" then temperature must be > 225 degrees Fahrenheit
If mixture size is 1" or 3/4" then temperature can't exceed 310 degrees Fahrenheit
If mixture size is 1/2" or 3/8" then temperature can't exceed 330 degrees Fahrenheit

- K. Determine the class of compaction Class IA, IB or IC or II.
1. Class IA--required for Type A & B binder and surface courses on the Interstate. May be designated for the high traffic highways. 92% density 8% voids
 2. Class IB--Required for Type A & B binder and surface courses for primary highways. 92% density 8% voids
 3. Class II--When Class I not specified and resurfacing up to and including 1 inch design thickness with no binder course intended where the base structure will not tolerate Class I requirements.
- L. Test Strip

Test strip required when plan quantity over 1,500 tons and Class IA compaction.

1. First day production < 500 ton.
2. See SS 1070, Page 15 for procedures.

M. Rolling Pattern

1. What is rolling pattern established by test strip (if applicable)?

of passes with breakdown roller?
(type and vibratory mode?)

of passes with intermediate roller?

2. Has inspector reviewed all data regarding rollers?
3. How is roller data documented?
4. Was inspector present during test strip construction?
5. Have there been any adjustments to rolling pattern; e.g. due to job mix formula changes?
6. Have densities obtained by core samples correlated well with densities obtained via nuclear gauge?
7. Steel finish roller shall be used to smooth out all marks and roughness in the surface.
8. For intermediate rolling under Class I compaction, the pneumatic tired roller shall be used for mixes placed after September 1.

- N. Has construction joint (header) and main line been checked for smoothness?

- O. Check appearance of surface texture for tearing, cracking and segregation.

III. PLANT SITE

- A. Has proportioning equipment been calibrated and witnessed by the materials engineer or his representative? Documented?
- Calibration curves established/posted for gate openings.
 - Type of Plant

- B. Have aggregate stockpiles been properly constructed?

0. Bin for dumping truck.
1. Separation between piles
2. No coning -- shape of stockpile.
3. Base for loader -- no contamination.
4. Documentation of Certified Aggregate deliveries.

- C. Asphalt Delivery

0. Check for proper source and certification.
1. Is AC use within tolerance?
2. Is temp of AC being recorded?

- D. Plant Sampling

0. Have 3 cold feed aggregate gradations been taken daily?
Results recorded?
1. Has aggregate moisture been checked?
2. Has Asphalt cement been sampled?

- E. Mix Control

0. Is appropriate mix design data available?
1. Is mix temperature being recorded?
2. Are trucks being checked for proper loading to prevent segregation?

3. Is daily tonnage of HMA wasted used on another project or sold commercially recorded?
 4. How is lime (anti-strip additive) controlled?
 5. How are fines (minus 200 sieve) collected? Are they incorporated into mix?
- F. Scales & Weights
0. Are scales being checked for sensitivity?
 1. Are weights being verified?
 2. Do scales have digital printing recorder or automatic weight printer?
 3. Have scales been checked and certified?
- G. Trucks
0. Are truck bodies clean, tight and in good condition?
 1. Do trucks have covers to protect material from unfavorable weather conditions?
 2. Is soapy water or other approved products available for coating truck bodies to prevent material from sticking? Diesel fuel should not be used. What type material used?
- H. Core Testing
0. Who identifies location of cores?
 1. Who runs density?
 2. Review field book for density and per cent voids documentation.

IV. DOCUMENTATION

- A. Daily Plant Inspection report.
- B. Review checks and test results in field book for completeness.
- C. Review daily dairy.
- D. Have any non-compliance issues been issued? If so, for what items? How were these deficiencies corrected?

V. TRAFFIC CONTROL

- A. Has the contractor combined some of the stages?
- B. Have there been any accidents in any of the stages?
- C. Is the TCP being followed?
- D. Are all permanent signs covered?
- E. Is the 24-surveillance vehicle in evidence?
- F. Are the signs clean and in the right place?
- G. Are the crossovers working properly?
- H. Is the traffic flow going through the stage without any problems?
- I. Are the special signs working properly?
- J. Are the adhesive lines working properly?
- K. Are the vertical panels spaced properly, clean and in good repair?
- L. Is all reflective signing clean and reflecting?
- M. Cones if required should be 28 inches in height.