

PLACEMENT AND COMPACTION

Inspection Points – Mix Delivery, Paver Operations, and Compaction

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2019 Regional Seminars

MIX DELIVERY



Mix Delivery – Right Mix Into The Hopper

- **Check truck ticket**
 - Right mix
 - Right project/location
 - Warm mix identifier
 - Approved Job Mix Formula
- **Check for mix issues as it is unloading into paver**
 - Free of deleterious materials in truck

Paving with SM-9.5 mix; truck delivered BM-25



Millings not fully cleaned out of truck before loading with mix



Mix Temperature: Summary of Specifications

Mix Characteristic	Minimum Base Temperature	Minimum Laydown
Warm Mix	40	200
Base or Intermediate Mix	40	250 (or nomograph)
Surface Mix A	40	250 (or nomograph)
Surface Mix D, and A mixes with >25% RAP	50	270 (or nomograph)
Surface Mix E	50	270 (or nomograph)

**Other restrictions for SMA, SM-4.75, and THMACO.
Check special provisions for requirements.**

PAVER OPERATIONS



Paver Operations – Importance of Steady Pacing

- **Maintaining constant paver speed is important to getting a smooth mat and consistent thickness**
- **Paver stops can create bumps and low density areas**
 - **Pull forward and place joint if the wait will be long**
- **The speed of the entire operation should be tied together**
 - **Plant production, trucking, paver speed, roller speed**





Keeping the MTV tires clean and not leaving debris in the roadway

Tack bubbles on surface after compaction when remnants from MTV are not removed from roadway



Paver Operations – Mat issues

Visually check for mat issues behind paver:

- Segregation
- Tearing

“The finished pavement shall be uniform and smooth” (315.05c)

- Contractor Level II Asphalt Field technician to correct any issues with placement operations (315.05(c))
- Engineer reject a portions if paved roadway is visually segregated or contaminated (211.08)

Small streak behind paver – foreign object in paver



COMPACTION



Compact in proper temperature range

Complete compaction rolling before mat cools

Cessation temperature of 175°F (315.04)

Warm mix helps achieve compaction temperature range

Not all warm mixes are the same!

Mat showing crack from wave of asphalt with roller



Longitudinal Joints

Joint Location (from supplemental specification 315.05(c):

- $\geq 6''$ offset from underlying joint
- 6'' to 12'' offset from the centerline on 2-lane roadway
- $\sim 6''$ from lane lines on >2 lane roadways
- Joint straight within 2'' over 50 ft

Ensure density at joint and make adjustments as needed

- 0.2 gal/SY tack application
- Overlap the joints

Cracking along the edge

- extend tack beyond the first lane
- check proper roller placement on edge



