# **Checklist for LJS / VRAM Application**

### **Pre-Application**

- The existing surface of the application area shall be clean and free of dirt, dust and any debris and free of moisture. Do not apply over temporary traffic control tape; ensure that it is removed prior to placement.
- Ensure that any depressions, potholes, wide cracks, etc. have been addressed with prep work through patching or sealing.

#### **Application**

- o If tack is applied before the LJS/VRAM, it must be thoroughly cured. If tack is applied after the LJS/VRAM, it should overlap the LJS/VRAM to ensure full coverage of the surface adjacent to the LJS/VRAM.
- o It is highly recommended the applicator check the application rate in a staging area prior to performing on the project.
- o Apply LJS/VRAM between 265F and 320F. If needed, reheat gradually with agitation to prevent localized overheating.
- Exact location of LJS/VRAM should be discussed prior to performing on the project.
- o Check the application rate within the first 1,000 feet of placement, then every 12,000 feet thereafter.
- Ensure the application width is within the acceptable parameters and the initial placement of the material does not flow more than 2" from that initial application.
- O Public and construction vehicles may cross over the LJS/VRAM band once it has cooled to 130F or less. **Do not permit** public and construction vehicles to stop upon or drive longitudinally directly on top of the LJS/VRAM band.
- It is usually needed for the area of application to be painted with marking paint as a guideline for the applicator to follow.
- o When sampling, use the sampling spigot. Do not obtain the sample from the spray bar to minimize contamination.
- It is suggested that sampling be done at the time of the first required field rate check. It is **recommended** that the applicator **should** retain a sister sample of the material at the same time an agency sample is provided.

### **Paving and Compaction**

- O Align the HMA paver screed edge end plate (aka: door, wing, end gate, slide plate) to split the finished application of LJS/VRAM so the new longitudinal joint will meet ½ way across the finished application of material.
- o Ensure the paver end plate (aka: door, wing, end gate, slide plate) is raised slightly above the finished LJS/VRAM to not drag on or through the material. If paving over a fine-graded mix, raise the end plate by at least ½-inch.
- o If using grade skis during the HMA installment; ensure they do not run on top of the finished LJS/VRAM application.
- o In hot weather and when trucks pull away from the paver and cross the LJS/VRAM, it may be susceptible to peeling due to tack coat on the tires. A light mist of water on the surface of the LJS/VRAM is usually an adequate bond breaker to prevent this.
- Use the rolling pattern determined for the project, including the joint.
- o Do not use pneumatic rollers on HMA directly over the LJS/VRAM.
- When rolling the HMA over the LJS/VRAM, allow for the edge of the drum to overhang a few inches beyond the edge of the HMA mat. Avoid placing the edge of the drum directly over the HMA on the inside edge of the LJS/VRAM.
- o For a fine graded mix, it is suggested that the breakdown roller(s) compact the mix over the VRAM/LJS close behind the screed for best performance if longitudinal cracking is observed.
- o Newly compacted HMA directly above the LJS/VRAM placement may feel spongy to walk on for several minutes. This indicates that the LJS/VRAM is hot and migrating into the mix. This area will stiffen when cool.
- O Density requirements are waived on the HMA within one foot on either side of the joint placed over the LJS/VRAM.
- o If VRAM/LJS is left open to traffic or a hot surface temperature is expected, primarily on a milled surface, an application of natural or crushed sand, or lime, may be applied at a rate of 1 +/- ½ lb/SY with a spreading device (i.e.: push drop spreader), or by hand. Sanding should also be considered if rain is likely.

## Rumble strips / raised pavement markers (RPMs)

When installing Rumble Strips and/or RPM's and surface temperature is over 120°F prior to cutting, it is highly recommended watering the designated area with a water truck or a pump assisted device to cool down work area. Clean debris out of Rumble Strips as soon as possible with a power broom directly behind the milling machine before millings can bind together.

#### Warning: In the event of a rain or snow fall, the surface of the uncovered installed product may be slippery when wet.

Should you have any questions please feel free to contact any of our representatives listed below.

Should you have any questions prouse feet free to contact any of our representatives listed colovi.			
Chad Crosby	419.769.0793	Dan Swiertz	262.483.7182
Cody Egan	217.251.4018	Todd Thomas	973.610.2260
Andrew Eicher	317.371.0527	Vince Venturella	317.403.1978
Jim Romanik	651-274-5072	Tim Zahrn	217.494.3563

