GRADE PREPARATION

• Essential to successful performance of the surface treatment
• Restore roadway in conformance with specs
• Remove unsuitable materials
• Cut pot-holes out
• Correct drainage deficiencies
• Provide sufficient depth of granular etc.
Construction

Ensure good weather:

- Adequate air and surface temperature.
- Low humidity.
- Slight breeze.
- Clear forecast.
Dealing with weather:

- Temperature and humidity affect how quickly a seal will cure.
  - May have to ‘baby-sit’ a new seal...particularly on a busy road.
- Harder grades (HF-100S and HF-100P) less prone to bleeding in hot weather.
- Adhesion additives can help resist rain damage but not a guarantee.
Construction

Apply emulsion:

- Select the right grade.
- Adjust rate for surface and aggregate used.
  - Typically 1.5-1.9 L/m²
- Suitable temperature to achieve good spray (≈60°C).
Construction

Spread aggregate:

- Immediately after emulsion.
- Correct coverage.
- Spread uniformly
Construction

Rolling:
- Embeds stones in emulsion.
- Helps “break” the emulsion.
- Maintain slow speed.
- More is better.
- Orient the stones
Traffic Control:

- Following laydown, the seal will be ‘tender’...controlling traffic will help achieve interlock.
- Pilot traffic for safety and improved seal performance.
Construction

Traffic Control:

- Increased importance in marginal weather.
- Cool, damp weather will slow cure.
- A heavy rain with high traffic can cause major stone loss or pumping of oil to surface... **bury seal with cover sand** and slow down traffic.
Sweeping:

- Clean joints for adjacent pass.
- Remove dust and excess stones and construction.
- Prevent tearing stones out...don’t sweep too early.
- First sweep should be light.
- Avoid watering to keep dust down...retards cure, retains dust longer.
Construction

Subsequent Sweeping:

- Necessary to remove any loose stones.
- Delay second and third sweeps until seal has had time to develop strength.
- From the point of view of the seal, the best time to sweep is to not sweep at all.
Construction

Final desired appearance:

- Homogeneous matrix of various sizes of stones embedded in emulsion residue.
Thank You

Questions?