

Longitudinal Joint Best Practices

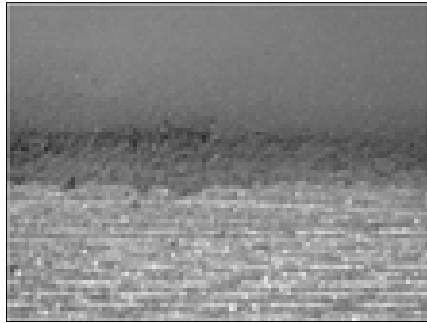
2013

SCDOT/SCAPA HMA Quality
Improvement Committee

Paving Preparations

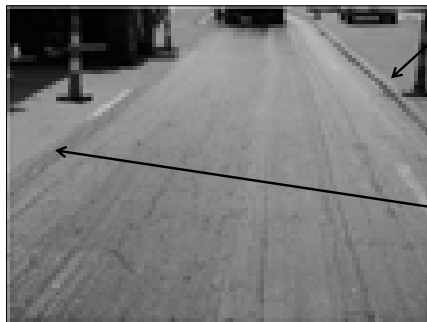
- Set up paint or string-lines to assist equipment operators/drivers in maintaining straight lines during the paving operation.
- Attach a reference chain or other device to equipment so the reference lines can be easily followed by the paver operator.

Paving Preparations



- Clean the joint area to ensure excessively loose material is removed prior to paving.

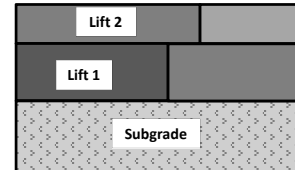
Paving Preparations



- Apply additional tack at the joint face using a wand or angled spray bar to assist with cohesion at the joint
- Tack a few inches past the full paving width to ensure the unrestricted edge will have minimum movement in the compaction process.

Paving Preparations

- Stagger the construction of multiple lifts to avoid multiple joints placed at the same location.



- Allow time for the tack to properly cure (break) before placing the layer of asphalt to minimize movement during the compaction process.
 - Especially critical near unrestrained edges

Paving Operations



- Ensure that the gate is extended far enough to allow for approximately 1" to 1½" of overlap.
 - This maintains sufficient material at the joint and
 - Prevents starving the joint.

Paving Operations



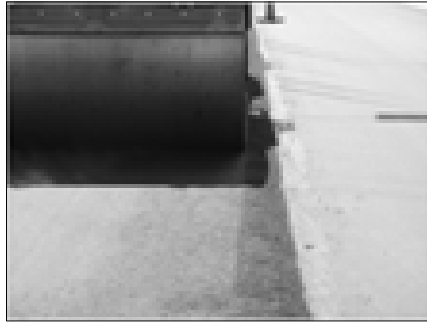
- Ensure that the height of the loose lift is higher than the adjacent lift.
 - Final compacted height should be slightly higher than the previously constructed mat.
- Properly lute the joint, only if necessary, to prevent pushing material out of and away from the joint.

Paving Operations



- Maintain a uniform head of material at the auger points to ensure enough material is consistently at the joints throughout the paving process.

Compaction



- Ensure that the first pass of the breakdown roller is approximately 6" away from the joint.
 - This ensures the material is being compressed towards the joint.

Compaction



Compaction

- After the initial pass, overlap the joint in all remaining passes with all rollers.
- Make sure all of the rollers are compacting at the joint, not just the breakdown roller.

Compaction



- Overhang the roller by approximately 6" while compacting unrestrained edges.