

## Special Provision to Item 354

### Planing and Texturizing Pavement



Item 354 "Planing and Texturizing Pavement" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

**Article 354.2. "Equipment"**, is supplemented by the following:

- 2.4. **Micro-milling Equipment.** Use planing machine that is power-driven, self-propelled micro-milling equipment possessing the size and shape to allow traffic safe passage through areas adjacent to the work. Also, ensure the micro milling equipment will be:
- Equipped with a cutting mandrel with carbide or equivalent tipped cutting teeth designed for micro-milling bituminous pavement full lane width to close tolerances,
  - Capable of removing pavement to an accuracy of 1/16 in. with a maximum tool spacing of 5/8 in.,
  - Equipped with grade and slope controls operating from a string line or ski and based on mechanical or sonic operation,
  - Furnished with a lighting system for night work, as necessary,
  - Provided with conveyors capable of side, rear, or front loading to transfer the milled material from the roadway to a truck, and
  - Equipped with a 12 ft. drum with 60 cutting teeth per ft.

**Article 354.3. "Construction"**, is supplemented by the following:

- 3.5. Micro-milling. Micro-mill the designated areas and depths specified in the plans, including bridge decks, shoulders, and ramps, as required.

Mill the pavement producing a final pavement surface with transverse pattern of 0.2 in. center to center of each strike area with difference no greater than 1/16 in. between the ridge and valley (RVD) measurement of the final milled surface. Construct a uniform finish free from gouges and ridges that does not vary more than 1/8 in.in width of the cut.

Prior to commencement of the work, construct a test section that is 1,000 ft. in length with a uniformly textured surface and cross section as approved by the Engineer to demonstrate compliance with the transverse pattern, cross slope, and RVD measurement requirements. Stop milling operation and submit a written plan of action detailing proposed steps to improve operations if any of these requirements are exceeded in the test section. If approved by the Engineer, construct another 1,000 ft. test section in a different area than the initial section using the approved corrective action.

The second test section is subject to the same requirements as those required in the initial test section. Continual micro-milling is prohibited until an acceptable test section is obtained.

Ensure micro-milling methods produce a uniform finished surface and maintain a constant cross slope between pavement edges in each lane. Provide positive drainage to prevent water accumulation on the micro-milled pavement, as shown on the Plans or as directed. The cross slope must be uniform with no depressions or slope misalignments greater than 1/4 per 12 ft. exit when the slope is tested with a straightedge placed perpendicular to the center line.

Bevel back the longitudinal vertical edges greater than 2 in. produced by the removal process and left exposed to traffic. Bevel the vertical edges back at least 3 in. for each 2 in. of material removed. Use an attached mold board or other approved method.

Taper the transverse edges 10 ft. (3 m) to avoid creating a traffic hazard and to produce a smooth surface when removing material at ramp areas and ends of milled sections.

Protect with a temporary asphaltic concrete tie-in (paper joint) vertical edges at other areas such as bridge approach slabs, drainage structures, and utility appurtenances greater than 1/2 in. areas left open to transversing vehicles. Place the temporary tie-in at taper rate of at least 6 to 1 horizontal to vertical distance. Damage due to micro-milling will be repaired at the Contractor's expense and to the satisfaction of the Engineer.

Remove dust, residue, and loose milled material from the micro-milled surface. Do not allow traffic on the milled surface and do not place asphaltic concrete on the milled surface until removal is complete.

Measure the milled surface with a 10-ft. straightedge at locations determined by the Engineer for quality acceptance and acceptance of test section of milling operation. Remove and replace any areas exceeding 1/8 in. RVD, as directed at no cost to the Department.

**Article 354.4. "Measurement"**, is supplemented by the following:

This Item will be measured by the square yard of surface area for each pavement type micro-milled of the depths specified. Measurement will be based on the depth shown for each bid item, within the limits shown on the plans, regardless of the number of passes required. Only one bid item for each section micro-milled will apply to any one location.

**Article 354.5. "Payment"**, is supplemented by the following:

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will also be paid for at the unit price bid for "Planing and Texturing (Micro-Milling)" of the depths specified.