

SECTION 2500 PLANING

2501 SCOPE. This section governs the furnishing of all labor, equipment, tools, and materials and the performance of all work required for planing pavement surfaces.

2502 EQUIPMENT. Planing the surface of pavements shall be completed by the user of a planer conforming to one of the two (2) following types:

a. Heater Planing.

1. Machine. The heater planing machine shall be designed and built for planing work, be self propelled and shall have the means of heating, planing and cutting the old surface and blading the cuttings into a single windrow.
2. Heater. The machine shall be equipped with an adequate pavement surface heater to heat the surface to the optimum temperature for planing.
3. Operating Width. The heating and cutting width of the machine shall be the same and shall not be less than eight (8) feet.
4. Drive Wheels. The rear driving wheels shall be tandem to protect the softened surface of the pavement.
5. Speed. The machine shall be capable of operating at a speed compatible with the heating capacity of the burner.
6. Power. The planer shall have adequate power to force the cutting edge to the proper depth below the surface of the heated pavement without chattering or causing irregularities in the surface of the planed pavement. This machine shall have enough power to operate all auxiliary equipment without interfering with the performance of the machine as a planer.
7. Air Pollution. The machine shall comply with current air pollution standards.
8. Warning Lights. The planing machine shall be equipped with a flashing warning light visible from three hundred sixty (360) degrees. The light shall be mounted near the rear of the machine, at least two (2) feet above the highest part of the planing machine, and shall be used whenever the machine is being used or moved upon the County streets or roads.

B. Cold Planing.

1. Machine. The cold planing machine shall be self-propelled and shall have in combination the means of planing and cutting, without softening, the old surface and blading the cuttings into a single windrow.

2. Air Pollution. The machine shall be equipped with a dust suppression system including water storage tanks and high pressure spray bars.
3. Operating Width. It is desirable that the cutting width be greater than five (5) feet. In the event the cutting width is less than five (5) feet a system of electronic grade control for consecutive passes will be required.
4. Cutting Drum. The cutting drum shall be totally enclosed to prevent discharge of any loosened material on adjacent work areas.
5. Warning Lights. The planing machine shall be equipped with a flashing warning light visible from three hundred sixty (360) degrees. The light shall be mounted near the rear of the machine, at least two (2) feet above the highest part of the planing machine, and shall be used whenever the machine is being used or moved upon the County streets or roads.

2503 CONSTRUCTION DETAILS.

A. Methods of operations for Planing:

1. Operator. The planing machine shall be operated by an experienced and capable operator.
2. Utilities. Street or road surfaces adjacent to manholes, water valves and other utility extensions, shall be completely removed to the full depth of cut specified for the street or road unless otherwise specified by the Engineer.
3. Material Disposal. The material left windrowed by the machine, or removed by hand labor methods, shall be removed immediately from the surface of the pavement and disposed by the Contractor at a disposal area designated or as directed by the Engineer.
4. Surface Conditions
 - a. Heater Planing. The temperatures at which the work is performed, the nature and condition of the equipment and the manner of performance of the work shall be such that the pavement is not torn, gouged, broken or otherwise damaged by the planing operation.
 - b. Cold Planing. The drum lacing patterns shall produce a smooth surface finish after planing, with groove depths not to exceed one-quarter (1/4) inch unless otherwise approved by the Engineer.
 - c. Tolerance. The maximum tolerance for cold planing in a longitudinal direction shall be one-fourth (1/4) inch under a ten (10) foot straight edge and shall be three-eighth (3/8) inch under an eight (8) foot straight edge in a transverse direction.

B. Types of Cuts to be made by Planing:

1. Leveling. Sufficient passes shall be made such that all irregularities or high spots are eliminated, and that one hundred (100) percent of the surface is planed.
2. Average Depth. Sufficient passes, or cuts, shall be made in order to remove a specified depth over the entire street section. These depths will be designated in the Special Provisions or as directed by the Engineer.
3. Bridge Deck Planing. Sufficient passes, or cuts, shall be made in order to remove the material as specified on the plans or in the Special Provisions.
4. Cold Planing (Six (6) Foot Width Curb Cut.) In areas designated for Cold Planing (six (6) foot curb cut) sufficient passes, or cuts, shall be made such that all irregular or high spots are eliminated from the top edge of the concrete gutter to a point of two (2) inches below the edge of the gutter. The depth shall taper from zero (0) inches at a distance of six (6) foot from the edge of the gutter. This type of cold planing shall be used in areas where an asphalt overlay is to be done next to a existing curb, so not to overlay asphalt higher than the curb.

- C. Clean-up. The contractor shall remove all cuttings and debris from the street that can be removed by a self-propelled street sweeper with a hooper immediately after the designed area has been milled. Material shall not remain that would recompact or leave an unsuitable surface for subsequent overlay operations.