

SECTION 13 COLD PLANING

13-1 GENERAL - The work to be accomplished under these specifications includes such equipment, personnel, materials and skill as may be necessary to complete all operations associated with planing an existing bituminous pavement in accordance with these specifications.

As referenced in these specifications, the term "cold plane" is defined as milling the existing asphalt concrete surface to a uniform depth. Unless specified otherwise in the Special Provisions, or shown otherwise on the Contract Plans, the depth of milling shall be 0.20', except adjacent to existing curbs where the depth shall be 0.15' at the gutter lip and tapered to 0.00' at the distance so designated in the Contract Plans as wedge grinding. If no distance has been designated by the Contract Plans the distance shall be a minimum of 4'.

When specified in the Special Provisions or directed by the Engineer, roadway excavation may also be made by a cold planning operation.

13-2 SURFACE PREPARATION - Prior to commencing work, the existing pavement shall be cleaned of all loose material and all interfering pavement markers shall be removed. Power brooms shall be supplemented, when necessary, by hand brooming in order to bring the surface to a clean, suitable condition, free of deleterious material, acceptable to the Engineer.

13-3 EQUIPMENT

Only equipment conforming to these specifications shall be used and all such equipment shall be maintained in a safe and satisfactory working condition at all times.

The equipment for removing the asphalt concrete pavement shall be a commercially designed and manufactured machine capable of performing the work in a manner satisfactory to the Engineer.

The machine shall be power-operated and self-propelled, and shall have sufficient power, traction and stability to remove a thickness of bituminous surface to the specified depth, and provide a uniform profile and cross slope. The machine shall be capable of accurately and automatically establishing profile grades (within 1/8") along each edge of the machine by referencing from the existing pavement by means of a ski or matching shoe, or from an independent grade line. The machine shall have an automatic system for controlling grade elevation and cross slope. The machine shall be equipped with a means to effectively control dust generated by the cutting operation.

The machine shall be equipped with a cutter head of not less than four (4) feet wide and shall operate without producing fumes or smoke. The machine shall cut or excavate the pavement without the use of a heating device to soften the pavement at any time. The machine shall be capable of cutting concrete, buried or visible, when it is encountered.

13-4 PLANING OPERATION - The nature and condition of the planer and the manner in which the work is performed shall be such that the pavement is not torn, gouged, shoved, broken, or otherwise damaged by the planing operation. Uniform, discontinuous longitudinal striations or other uniform pattern shall characterize the surface resulting from the cold planing operation. The edges of planed areas shall be straight, neat lines. Adjacent facilities to remain in place shall not be damaged in any way by the planing operation.

The Contractor shall furnish one or more planing machines and an experienced operator for each machine. Work shall not begin until a means is provided for immediate removal of loose materials generated by cold planing. When permanent asphalt paving is planned to follow, planing operation shall not begin more than twenty-four (24) hours in advance of such paving.

Removal shall consist of planing and cutting the pavement to form a key way header cut or full width re-grading, and removing the loosened material. A 0.15' minimum header shall be cut along structures to eliminate feathering and permit new asphalt concrete to be laid to the stated depth.

Sufficient passes or cuts shall be made so that all irregularities and high spots are eliminated to the satisfaction of the Engineer.

Asphalt concrete that cannot be removed by cold planing equipment because of physical or geometrical restraints will be removed by other methods acceptable to the Engineer.

The surface tolerance produced shall be such that a 10' straight edge laid laterally will indicate variances of less than 0.02'.

Before opening the milled surface to traffic, all loose material shall be removed from the milled surface and the surface swept clean with a power broom. If the road is to remain open to traffic, all vertical elevation deviations in the transverse direction, and any vertical elevation deviations in excess of 0.15' in the longitudinal direction, of the planed area shall be properly tapered with asphalt concrete. Tapers shall be constructed of commercial quality asphalt concrete, spread and compacted by any method to a slope of 30:1, horizontal to vertical, or flatter, and maintained until the permanent surface treatment is installed. At driveways, a 12:1 taper may be used.

No aggregate shall remain on the project at the end of each workday. Aggregate material loosened and designated for removal shall become the property of the Contractor and shall be disposed of offsite, or it may be incorporated as trench backfill or material in compliance with other applicable provisions of these Specifications.

Contractor shall replace damaged traffic signal detection loops that are shown on the plans or marked in the field to be protected. Replacement of damaged detectors shall be at Contractor's sole expense.

Unless stipulated otherwise in the Contract, permanent surface paving shall commence within seventy-two (72) hours of the cold planing operations. Contractor shall completely remove all temporary tapers and ramps, including all loose materials, from the underlying surface prior to installing permanent surface paving.

13-5 MATERIAL DISPOSAL - The Contractor shall remove and transport debris and rubbish in a manner that will prevent spillage on streets or adjacent areas. Cleanup of spillage will be at the Contractor's expense. All material removed from the site shall be disposed of in accordance with Section 6-16 "Disposal Outside of Project Limits", of the General Provisions of the City Standard Specifications, at the Contractor's expense. City makes no guarantees that spoils from the cold planing operation are recyclable or reusable. Any testing, if required for their disposal, shall be the Contractor's sole responsibility.

13-6 MEASUREMENT - The quantity of asphalt cold planing will be measured on a unit basis for the type of cold planing involved, as provided for in the Contract Bid Proposal. Final quantities for payment purposes must be agreed upon by the Engineer prior to placing any subsequent bituminous seal coat, interlayer or asphalt paving.

13-7 PAYMENT - The contract unit price for performing cold planing shall be full compensation for furnishing all labor, materials, equipment, tools and incidentals to complete the work specified, including but not limited to the hauling of milled or excavated material, replacement of vehicle detector loops, working around existing surface improvements and protecting adjacent improvements from damage, and no additional compensation shall be made therefor. Cold planing to excavate the roadway prism may be shown as "Roadway Excavation" on the Bid Proposal Form.

If there is no unit price provided for in the "Contract Bid Proposal" form, then compensation for cold planing, as specified shall be considered as included in the payment for the other various contract bid items of work and not additional compensation shall be allowed therefor.