

## SECTION 510

### GRINDING PORTLAND CEMENT CONCRETE PAVEMENT

**510.01 Description.** This item shall consist of grinding portland cement concrete pavement to substantially eliminate vertical differentials and to restore drainage, riding characteristics, and skid resistance to the pavement surface.

**510.02 Equipment.** The grinding equipment shall be a power driven, self-propelled machine that is specifically designed to smooth and texture portland cement concrete pavement.

The equipment shall be capable of grinding the surface without causing spalls at cracks, joints, or at other locations.

**510.03 Construction Requirements.** The construction operation shall produce a uniform finished surface without damaging the existing pavement that is to remain. Grinding shall be accomplished in a manner that eliminates joint or crack faults while providing positive lateral drainage by maintaining a constant cross-slope. Grinding shall transition as required to provide positive drainage and an acceptable riding surface. The pavement shall be ground in a direction opposite to normal traffic flow.

The entire area designated on the plans shall be ground until the pavement surfaces of adjacent sides of transverse joints and cracks are in the same plane. It is intended that the faulting at joints and cracks be eliminated and that substantially all of the pavement surface shown on the plans be textured. Extra depth grinding to eliminate minor depressions in order to provide texturing for 100% of the pavement surface will not be required.

The Contractor shall establish positive means for removal of grinding residue. Solid residue including joint material shall be immediately removed from the pavement surface. Residue shall not be permitted to flow across lanes used by traffic. Drainage facilities shall be kept free of accumulated residue.

**510.04 Final Surface Finish.** The grinding process shall produce a pavement surface that is true to grade and uniform in appearance with a longitudinal line type texture. The line type texture shall contain parallel longitudinal corrugations that present a narrow ridge corduroy type appearance. The peaks of the ridges shall be approximately 0.8 mm (1/32") higher than the bottoms of the grooves

510

with approximately 170 to 190 evenly spaced grooves per meter (53 to 57 evenly spaced grooves per foot).

The finished pavement surface will be measured for roughness by the Department. The Mays Ride Meter equipped with a PCR 2000 digital recorder will be the measuring device. Roughness must meet a minimum ride rating of 78.4.

Vertical misalignment of the planes of the surfaces on adjacent sides of the joints or cracks that is in excess of 2 mm (1/16") shall be ground until the surfaces are flush.

The transverse slope of the pavement shall be uniform to a degree that no depressions or misalignment of slope greater than 6 mm (1/4") in 3 m (10') are present when tested with a straightedge placed perpendicular to the centerline.

**510.05 Method of Measurement.** Grinding Portland Cement Concrete Pavement will be measured by the square meter (square yard).

**510.06 Basis of Payment.** Work completed and accepted and measured as provided above will be paid for at the contract unit price bid per square meter (square yard) for Grinding Portland Cement Concrete Pavement, which price shall be full compensation for furnishing equipment; for grinding the existing concrete pavement; for removing residue and cleaning the pavement; and for all labor, equipment, tools, and incidentals necessary to complete the work.

Payment will be made under:

<b>Pay Item</b>	<b>Pay Unit</b>
Grinding Portland Cement Concrete Pavement	Square Meter (Square Yard)