

**813 - RUMBLE STRIPS (MILLED) AND RUMBLE STRIPS (MILLED) (CENTERLINE)**

**SECTION 813**

**RUMBLE STRIPS (MILLED)**

**813.1 DESCRIPTION**

Construct milled rumble strips in the existing surface by milling concave depressions into the surfaces as shown in the Contract Documents.

**BID ITEMS**

Rumble Strips (Milled) (\*)  
Rumble Strips (Milled) (\*) (Centerline)  
Rumble Strips (Milled) (\*) (Edgeline)  
\*Asphalt or Concrete

**UNITS**

Station  
Station  
Station

**813.2 MATERIALS** - None specified.

**813.3 CONSTRUCTION REQUIREMENTS**

**a. General.** Use equipment capable of milling the concave depressions with a smooth cut to the dimensions shown in the Contract Documents. Use equipment with the milling head suspended independently from the machine, and that will self-align (parallel to the shoulder surface) with the surface of the paved shoulder regardless of the shoulder slope. Mill the concave depression to obtain a relatively smooth surface, with a maximum tolerance of 1/8 inch between peaks and valleys.

Before beginning work on the project, demonstrate to the Engineer, the ability to achieve the specified rumble strip depressions with regard to dimensions, alignment, smoothness and consistency. Construct a test strip approximately 75 feet longitudinally, at a site mutually agreed upon between the Engineer and Contractor, to demonstrate compliance with the requirements.

Provide adequate guide marks (approximately 2 inches by 12 inches at approximately 30 to 50-foot intervals) for milling the rumble strips.

**b. Rumble Strips (Milled).** Clean the shoulders before constructing the rumble strips. Mill the concave depression to the dimension shown in the Contract Documents. Align the concave depressions as shown in the Contract Documents.

**c. Rumble Strips (Milled) (Centerline).** Clean the centerlines before constructing the rumble strips. Mill the concave depression to the dimension shown in the Contract Documents. Align the concave depressions as shown in the Contract Documents.

**d. Rumble Strips (Milled) (Edgeline).** Clean the edgelines before constructing the rumble strips. Mill the concave depression to the dimension shown in the Contract Documents. Align the concave depressions as shown in the Contract Documents.

**e. Clean Up.** After the concave depressions are milled into the surface, use a power broom or sweeper/vacuum to collect the waste material resulting from the milling operations. Unless specified otherwise in the Contract Documents, uniformly spread the waste material just off the edge of the paved surface.

**813.4 MEASUREMENT AND PAYMENT**

The Engineer will measure rumble strips by the station for each shoulder longitudinally along the edge of the pavement.

The Engineer will measure centerline rumble strips by the station longitudinally along the centerline of the pavement.

The Engineer will measure rumble strips by the station for each edgeline longitudinally along the edge of the pavement.

The Engineer will not measure bridge decks, acceleration/deceleration lanes and other sections where rumble strips are not constructed.

Payment for "Rumble Strips (Milled)", "Rumble Strips (Milled) (Centerline)" and "Rumble Strips (Milled) (Edgeline)" at the contract unit price is full compensation for the specified work.