



## Clatsop County Road Department

### *What is a Chip Seal?*

A chip seal is an application of a protective wearing surface to an existing pavement. This maintenance work is performed to increase the service life of an existing asphalt or oil mat road.

First, asphalt is emulsified (mixed with water and an emulsifying agent). This emulsion is then applied to the road using a special spray truck. As soon as the emulsion meets the road surface, the water begins to evaporate leaving the soft sticky asphalt.

Immediately after spraying the emulsion, a layer of rock chips (small, clean, crushed rock) is applied by a chip spreader. These chips are then rolled in to provide a better bond with the asphalt emulsion.

### *Why use a Chip Seal?*

Over time asphalt reacts with oxygen in the air to become more brittle. UV radiation from the sun breaks down the binders in the asphalts. Water penetrates roads to cause damage to the road base, which leads to failing pavements. Traffic loads can cause surface raveling (loss of rock).

Chips seals provide protection for existing asphalt or oil mat surfaces to extend the service life of the pavement. They help to mend some of the above damage, and protect against further damage. They do not create a new structure for a road, such as an asphalt overlay would provide. However, they can be performed much more cheaply and quickly.

### *What can you expect to see?*

The application of the chip seal is pretty fast. We can finish a mile of road in about an hour under normal conditions. It will look like we have made a gravel road. There will be a lot of loose rock.

One or two days later we come back to sweep the road and apply a fog seal. The fog seal will coat the new rock with a protective layer of black asphalt to help keep the remaining rock in place. Several days later we may return to replace the paint centerline and fog lines if they were present to start with.

### *How can you help?*

- ✱ Park all vehicles well away from the edge of the road to avoid getting asphalt splashed or sprayed on them.
- ✱ Drive slowly on the fresh oil chip seal/loose rock. Your speed should be reduced until the striped have been restored. Be careful of speeder, as they may throw rock off of their tires which can chip windshields.
- ✱ Keep water off the road when we're applying the chip seal and the fog seal. The new asphalt does not stick well to a wet pavement.