



4-56.1 General

The mixture must be transported from the mixing plant to the point of use in vehicles conforming to the requirements set forth in [standard spec 450.3.1.2](#). Each truck must be clearly numbered or otherwise identifiable.

Before being loaded, the truck bed must be cleaned of foreign material and hardened asphalt, be lightly coated with a release agent (lubricant) that assists in preventing fresh hot mix asphalt from sticking to the surface of the bed, and be well drained. Before loading, each day the truck must also be weighed under average fuel conditions to establish a tare weight (unloaded weight). The tare weight is later subtracted from the loaded weight of the truck to determine the weight of hot mix the truck is hauling. Truck scales should be calibrated and checked in accord with [CMM 8-13](#).

A list of approved asphalt release may be viewed at the following website:

<http://wisconsin.dot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

The mixture should be delivered to the receiving hopper of the paver within 20 F (11 C) of the temperature recommended by the asphaltic material supplier. All loads shall be covered during inclement weather, or when the ambient air temperature falls below 65 F (18 C).

No loads shall be sent out so late in the day as to prevent completion of the spreading and compaction of the mixture during daylight hours unless artificial light satisfactory to the engineer is provided.

Sufficient trucks must be provided to ensure continuous paving.

Hauling patterns of the trucks should not impede the steady progress of the paver, disturb the base, or present hazards to road users.

4-56.2 End Dump Trucks

The rear of the bed of an end dump truck must overhang the rear wheels enough to discharge mix into the paver hopper. If it does not, an apron with side plates must be added to increase the overhang and prevent spillage of mix in front of the paver.

The bed must also be of a size that will fit into the hopper without pressing down on the paver. The hydraulic system for the truck bed hoist should be frequently inspected to guard against hydraulic fluid leakage. Such leakage on the roadway surface will prevent good bonding between the roadway and the new mat. If enough oil is spilled for the mix to absorb it, the mix can become unstable at that spot. In short, leaking trucks should not be used.

During delivery, the driver must direct the truck squarely against the paver and should stop the truck a few inches from the paver, before the truck tires make contact with the paver roller bar. Backing the truck against the paver can force the screed back into the mat, leaving a bump in the pavement even after the mat is rolled.

The truck bed must be raised slowly. When the mix is dumped too rapidly, segregation occurs, as the coarser aggregates will roll down the sides of the load.

4-56.3 Bottom Dump Trucks

If bottom dump trucks are used, the paver shall be equipped with a pick up device to feed the windrow directly into the paver hopper, or intermediate transfer equipment may be used. [Standard spec 450.3.1](#) gives the specifications for such a device or equipment.

The pick-up device and paver should not be in contact. If the loader and paver are directly coupled, vibration of the pick-up devices may be transmitted into the paver, and cause ripples and roughness in the mat surface. Such vibrations generally result from worn and defective parts, or from improper mounting or adjustment.

Only occasional uncoated particles should be showing in the compacted mix. Nearly all of the windrowed material should be picked up by the device and not left as high-priced, poorly compacted base course.

There are two common methods for unloading bottom-dump trucks. One method involves the use of a spreader box designed to be operated under the gates of the truck. The amount of material placed in the windrow is governed by the width of the spreader box opening. The disadvantage to this method is that the spreader box can restrict the amount of material to less than the required amount.

The second method is to use chains to manually control the dump gate opening. This is the most commonly

used procedure. Automatic devices are available for controlling gate openings; however, their use is somewhat limited because of the additional cost.

Variations in the size of the windrow deposited by the bottom-dump will cause variations in the amount of material fed to the paver hopper. This often causes variations in the finished surface. It is therefore essential the windrow deposited by the truck be as uniform as possible. If the windrow contains too much mix, a short gap in depositing from the next truck will compensate for the excess. The windrow length must also be controlled, particularly in cool weather. Windrowed material will cool below optimum spreading and compaction temperatures in cool weather, particularly when delay occurs because of paver malfunction. To prevent excessive cooling of the mix in cold weather, the limit of windrow should be no more than one truckload ahead of the pick-up device.