

# Usage Guidelines

## Trackless Tack

### The Ohio Department of Transportation

#### August 18, 2014

#### ***Who:***

These guidelines are for use by designers/engineers who are preparing plans that include ODOT Construction and Materials Specification (C&MS) Item 407 Tack Coat. Although primarily to be used during plan preparation, these guidelines can be used for “already sold” projects when trackless tack is being considered to reduce tracking issues.

#### ***What:***

Tack coats are used to bond asphalt pavement courses together. Trackless tack provides equal performance regarding bond strength as standard tack coat but results in a trackless coating within approximately 10 minutes.

#### ***When:***

Trackless tack will be used when the cure time of Item 407 Tack Coat is deemed problematic for construction sequencing and therefore tack pick up can occur.

#### ***Why:***

Trackless tack provides a safer work zone by eliminating tracking of slippery emulsified asphalt material (tack) onto adjacent roadways.

#### ***Where:***

Trackless tack can be used on any project that may have safety-related issues with tracked tack material, particularly those with temporary lane closures. The use of trackless tack should be considered for project conditions that typically do not allow adequate time for proper cure of standard tack. Designers are required to evaluate each project on a case-by-case basis for potential safety-related concerns that would arise from tracking of tack onto adjacent roadways. Construction sequencing, roadway configuration, traffic volumes, and paving hour restrictions, among other factors, must be considered and evaluated before specifying trackless tack. The designer/engineer shall use best-engineering practices to decide whether the use of trackless tack is warranted.

The following project conditions can be used as a guide to help determine applicability.

#### Short Construction Zones

Short construction zones do not allow sufficient tack cure time and perpetuate tack pick up and tracking. Temporary construction zones are often kept as short as possible by paving contractors to alleviate issues with multiple cross roads and intersections that must be utilized by the travelling public during paving operations. Traffic crossing and turning movements will

pick up and track uncured tack onto the adjacent roadways and therefore contractors tend to keep zones shorter for better and safer traffic control.

#### Urban Paving

Paving in municipalities requires short construction zones in order to effectively control traffic due to high traffic counts, multiple cross streets, shopping areas, and driveways that create congested conditions. Tack pick up and tracking is exacerbated in urban areas. Additionally, many cities and towns have restricted paving hours that also necessitate short zones.

#### Night Paving

Many interstate and interstate look-alike projects are restricted to paving only during night time hours. Night time temperatures are typically lower and dew points higher resulting in long tack cure times. Since penalties are often assessed for exceeding nightly closure times, contractors will not apply tack too far in front of the paver. This allows the contractor to manage risk associated with equipment and plant production issues. This type of sequencing often does not allow time for tack to sufficiently cure then delivery trucks track the material into the high speed lanes.

The use of trackless tack may be appropriate for project conditions other than those listed. The designer/engineer can best determine whether the use of trackless tack will improve safety on a subject project by examining all variables.

Trackless tack is used only for bonding asphalt pavement layers together. It is not for use on concrete or brick pavement. When asphalt pavement is being placed directly onto Portland cement concrete or brick pavement, tack the pavement according to item 407 using SBR asphalt emulsion conforming to 702.13.

#### ***How:***

The use of trackless tack shall be incorporated into plans using a plan note.

The following separate pay items will be used:

- Item 407E20500, Special - Tack Coat, Trackless Tack
- Item 407E20510, Special - Tack Coat, Trackless Tack for Intermediate Course

Design application rate will be the same as standard C&MS Item 407 Tack Coat.