
12 Eradication

Learning Outcomes:

- ☑ Know and know the purpose of eradication
- ☑ Understand correct eradication procedures

Definition/Purpose

Eradication describes the removal of existing pavement markings. Pavement markings are eradicated to change or modify the existing travel lanes and to prepare the road surface for new markings.

Undesirable Effects

If pavement markings are not eradicated properly, several different markings may exist at the same time, as shown in Figure 12.1. Often, the scars left by some removal methods may appear like additional pavement markings (see Figure 12.2). This may create a hazardous condition for motorists.



Figure 12.1
Roadway with confusing multiple lines



Figure 12.2
Scars from removed marking

It was once common practice to cover the existing marking with either black paint or asphalt (Figure 12.3). Heavy traffic would often wear away this paint or asphalt and the unwanted marking would become visible again. From a safety perspective, this is not a practical solution except for extremely short durations (i.e. overnight).



Figure 12.3
Black paint wearing off of previous marking

Methods of Eradication

There is no method of eradication that is free from drawbacks. Whatever the method, it must effectively remove the marking to the specified degree, while at the same time doing the least damage to the pavement. Eradication methods must be submitted to VDOT for approval prior to beginning the work.

Methods that have typically been used are:

- Blasting (hydro, sand or shot)
- Grinding
- Combination of blasting and grinding
- Type E Black Tape Note: Must be used on asphalt and not longer than 120 days

The effectiveness of the method is dependent on three things:

- The type and thickness of the marking being removed
- The type of pavement
- The skill of the operator

For example, thermoplastic markings cannot withstand abrasive blasting because the heat generated when the abrasives strike the marking melts the thermoplastic. Grinding is not acceptable on grooved or tined PCC because it will remove the texturing of the pavement surface. Most chemical strippers are hazardous materials with disposal problems. Heat can make HMA pavement slick. Depending on the amount of heat, safety problems may result. Hydro-jetting or hydro-blasting uses water and can cause slick pavements in the wintertime.

Specifications

The contract will specify how eradicated residue is to be contained and disposed. OSHA safety requirements must be followed. Section 512 of the VDOT Road and Bridge Specifications requires that 90% of the markings to be eradicated if installation will be over other markings. If the markings are removed for lane shifts or transitions, 100% of the markings must be removed.

Inspection

The eradicated lines are to be inspected for:

- Thoroughness of eradication
- Damage to the pavement surface

References

See Appendix A for the following:

VDOT Road & Bridge Specification Book

Section 512.03 (j) Eradicating Pavement Markings

Section 704.03 2. (b) Eradication

Also, see specific requirements of application in Section 704 for each type of marking material over an existing marking.

Chapter 12 Knowledge Check

1. Failure to remove existing markings when there are shifts in the traffic pattern can:
 - a) be misleading.
 - b) be confusing.
 - c) create a hazardous condition.
 - d) all of the above

2. Which of the following methods is not acceptable for long term eradication?
 - a) grinding and blasting
 - b) black paint
 - c) Type E tape
 - d) both a and b
 - e) both b and c

3. All residue created when eradicating pavement markings must be:
 - a) swept into the ditch.
 - b) contained.
 - c) recycled.
 - d) burned.

4. Eradication methods, other than those specified, must be submitted to the project engineer for approval prior to beginning work.
 - a) True
 - b) False

5. Eradicated lines should be inspected for:
 - a) thoroughness of eradication.
 - b) minimum amount of damage to the pavement.
 - c) both a & b
 - d) none of the above

6. Virginia designated Type E black tape may only be used on hydraulic cement concrete roadways.
 - a) True
 - b) False

7. One of the criteria in Virginia for using Type E black tape in lieu of eradication is that the traffic pattern will shift back to the original pattern within:
 - a) 90 days.
 - b) 1 month.
 - c) 120 days.
 - d) 6 months.