

also cause less damage and injury when struck. *State law requires calling DigSafe before digging.*

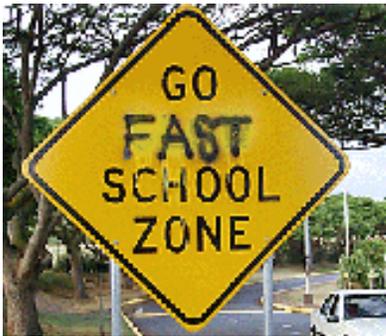


Figure 1

Crews cannot remove paint from the Figure 1 sign without damaging the retroreflectivity. They should replace it. Furthermore, the new sign should be a MUTCD designated S1-1. (See Part 7 of the MUTCD.)

Sometimes crews can remove paint without reducing the sign's reflective properties. To remove paint,

1. Wipe the sprayed area lightly with a soft cloth moistened with mineral spirits. If ineffective, go to step 2.
2. Wipe the sprayed area with a soft cloth moistened with lacquer thinner.

Abrasive materials and compounds usually scratch the sign face. Retroreflective sheeting damage depends on paint type, paint exposure length, and the cleaning chemical. After cleaning, night inspection is best. Repaired signs that look good in daylight can be ineffective, and unsafe, at night.

SIMS (Sign Inventory Management System), a software-based system, will assist road managers with inspection and reviews. Its purpose is repair plan development. Contact the UNH T² Center for more information. The UNH T² Center also has information on the MUTCD and sign placement.

Reference:

Interchange. Nebraska LTAP, Summer 2003. Vol. 17, No. 3.
Sign Guidelines. US Dept. of Interior, March 2002.
Maintenance of Small Traffic Signs. FHWA & USDOT, 1991.
Traffic Sign Handbook, UNH T² Center, 2005.

Pothole Patching

In 1998, Stephanie Fishman, then a UNH student, wrote an article on pothole patching for *Road Business*. It remains a clear description of how potholes form and how to repair them. Recent PW.Net traffic and new product developments indicate that some emphasis would be useful.

Potholes form when water becomes trapped beneath the pavement surface. As traffic moves over it, the pavement ruptures. Traffic makes the hole deeper and wider. As tires strike the water, it washes away the aggregate base. The longer the delay in repairing the hole, the bigger the pothole becomes.

Semi-permanent patching requires the following steps.

- Remove water and debris from the pothole, using a broom, shovel, and/or compressed air.
- Enlarge the hole with right angle corners and vertical sides using a pavement saw and square shovels.
- Use a tack on the bottom and sides, and place the mix with a shovel and rake in no more than 3" lifts.
- Compact each lift from the center towards the edges and corners with a vibratory plate compactor or single-drum vibratory roller.

Since Stephanie's article, some excellent proprietary mixes have become available. Their anti-stripping additives reduce the affect of water.

Sometimes, managers must quickly repair a pothole using a "throw-and-roll" or similar method. Crews at times patch a hole with water in it. Even with the modern mixes, crews will probably have to make a semi-permanent patch later. These mixes perform better than other materials, but cannot substitute for the steps described above.

For a copy of Stephanie's article, see the website below or contact the UNH T² Center.

Reference:

Fishman, Stephanie R. 1998. "Cost Effective Pothole Repairs." *Road Business*. Winter, UNH Technology Transfer Center.
<http://www.t2.unh.edu/winter98/pg6.html>