

Streets & Potholes Frequently Asked Questions



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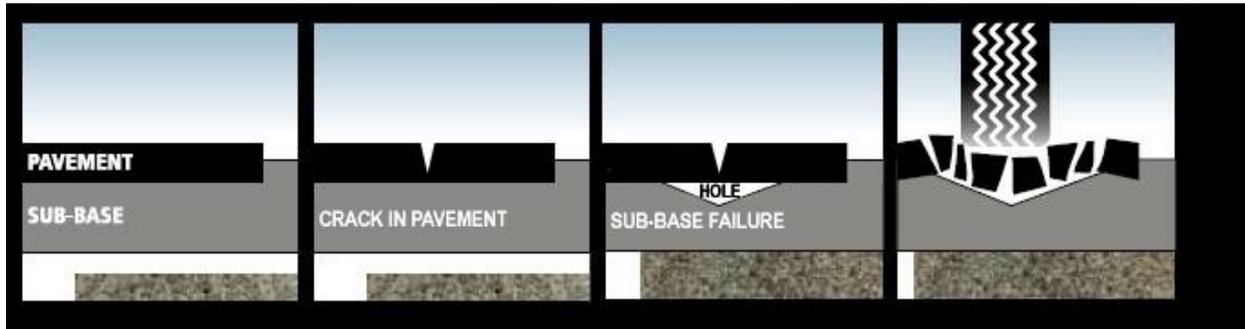
A Guide to Potholes

What is a pothole?

A pothole is a defect in a roadway caused by environmental factors such as ice, heat, or rain. Natural forces erode the street, creating a series of cracks. As the cracks grow deeper, chunks of pavement material separate, and are dislodged by the wheels of passing vehicles. The resulting hole in the surface of the road is known as a pothole.

Although some street damage may look like a pothole at first, not all roadway defects are categorized as potholes.

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How a pothole is created

How do we fix a pothole?

Road crews fix a pothole by filling it with replacement pavement material. Cold patches are used for small potholes in areas of light traffic because they can be quickly applied. Hot asphalt is used in high traffic areas or on larger potholes, because it will hold much more effectively.

If the road is pitted with potholes, it may need to be completely resurfaced. Resurfacing involves stripping off the upper layers of asphalt, roughening the bottom layers, and applying a new upper roadway surface. This process is very expensive and requires a lot of resources.

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Why do some potholes get fixed faster?

Risk to the public from a pothole is assessed using various criteria such as the size and depth of the hole, the location in relation to the use of the road, the speed and amount of traffic on that road, etc. If the pothole is deemed to be dangerous it will be treated as an emergency.

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I reported a pothole but it wasn't fixed - why not?

There are two common reasons that potholes are not able to be fixed immediately:

- 1) Some potholes are caused by utility, cable or water lines that run beneath the roadway. If the City determines the pothole you reported was caused by another agency, such as AT&T, PG&E or Comcast, then we will refer the repair to that agency to address the issue.
- 2) What has been reported as a pothole in many instances is not *really* a pothole. If a defect in the road is not able to be patched, it will be put on the street repaving list for roadway resurfacing.

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Why is my street getting resurfaced now even if it doesn't look that bad? There are various levels of resurfacing needs. The industry standard is to slurry seal a street approximately seven years after it is constructed. This practice is actually preventive maintenance with the purpose of sealing the street against water and further extending the life of the asphalt. The City budget does not support the continuous routine sealing of all City streets within seven years of construction, but frequently this level of preventive maintenance is able to be performed, although the street may look fine to the residents.

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Different Types of Repairs

Pothole Repair

Road crews fix a pot hole by filling it with replacement pavement material. Cold patches are used for small potholes in lightly trafficked areas because they can be quickly applied. Hot asphalt is used in high traffic areas or on large potholes, because it will hold more effectively.

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Skin Patching

Low areas that are imperfections in the asphalt are patched with fine HMA (hot material asphalt). Typically these depressions are small and have settled over time. This gives the street a patchwork appearance. These repairs are done during the warmer weather and are used as an alternative to resurfacing.

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Base Repair

Removal of any distressed areas where the pavement is fractured and broken and is allowing water to weaken the subgrade under the roadway. Various methods are used to remove the distressed asphalt, such as backhoe and cold mill planers. Once removed new asphalt is placed.

Steps to a Base Repair

Crews cannot simply "throw some asphalt mixture into a pothole"

1. First, the crew must cut the surface of the street and dig around the pothole to ensure the hole is deep enough to hold the patching mixture.
2. Then, the crew must remove the debris and spray adhesive into the pothole and around the edges to help the asphalt and the underlying dirt stick together.
3. The big machine comes next. Once the hole is prepared, 300° asphalt is poured from the patch truck into the pothole. (The patch truck has a heated box to hold the hot asphalt!)
4. The crew then rakes over the hot asphalt to make sure the patch is smooth and even.
5. Finally, the hot asphalt is rolled with a roller to press the asphalt down and seal it.

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Slurry Seal

Slurry seal is a preventive maintenance procedure where a blend of oil and small aggregate is applied to the streets. The construction cost is approximately \$1.20 per square yard. Slurry sealing can extend the life of a street by five to seven years.

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Resurfacing

If the road has become pitted with potholes, it may need to be resurfaced. Resurfacing a roadway involves stripping off the upper layers of asphalt, roughening the bottom layers, and applying a new upper roadway surface. This process is very expensive and requires a lot of resources.

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How We Determine if a Street needs to be Repaved

PCI Rating

We determine which streets get paved, and when, by following these steps:

- We start by visually inspecting the portion of roadway in question to look for various defects in the pavement
- Next we determine the Pavement Condition Index (PCI) rating of the street

The PCI is a numerical index used to indicate the general condition of pavement. The best possible condition roads are rated 100 and the worst are rated 0, based on the number and types of distress in the pavement
- We crosscheck the needs of the street with current funding levels, including possible requirements or restrictions on grants or federal funding
- We are continually creating and updating the list of streets in need of repaving (including square footage and length of area)
- Priority on the list is determined by the PCI, traffic volume, and the surrounding area (for example, we try to give school zones higher priority)

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[PCI Rating Map](#)

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Criteria Used to Determine Scheduling of Street Repairs

Potholes

Once the damage in the street is determined to be a pothole by the Public Works Maintenance employee who is inspecting, repairs are made the same day by filling the pothole with cold mix or hot asphalt depending on the size of the pothole and the traffic on the street.

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Base Repair or Skin Patching

If the damage in the street is determined to require base repairs or skin patching, a more involved process is begun. Depending on the location and severity of the damage, repairs may require vehicle traffic to be diverted so crews can work safely. If the damage is severe and determined to be a safety hazard to drivers, Public Works Maintenance crews will usually complete the work within three days of inspection. Less severe damage may be repaired within one to two months.

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Slurry Seals or Repaving Projects

For the streets in the worst condition, slurry seals and repaving may be required, involving a process which is both labor intensive and costly. To determine if a street section requires either a slurry seal or repaving, the PCI scale is used. All street sections with a PCI of 25 or less are placed on the Public Works Maintenance Division paving schedule. These projects can take several months to several years to address.

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