

**J&W ASPHALT PRESENTATION
EAGAN CHAPTER ONLY
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**HOA LEADERSHIP
NETWORK**

By Board Leaders. For Board Leaders.

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Asphalt Terms

- **Asphalt** – Asphalt is a composite made up of two primary components. Aggregates, such as crushed stone and gravel and bitumen, a sticky black liquid which acts as a binder.
- **Paving** – Paving a driveway or road is the process of constructing a new driveway or replacing an existing one. It involves several steps to create a durable and smooth surface for vehicles to drive on.
- **Repair** – Repairing asphalt involves fixing damage to asphalt surfaces, such as driveways, roads, and parking lots. This can range from sunken apron to large potholes and requires different techniques depending on the severity of the damage. Techniques used to repair asphalt are cut-and-replace and infrared repair.
- **Sealcoat** – Sealcoat is a liquid substance, typically made from asphalt emulsion, that is applied to the surface of an asphalt driveway. Techniques used for sealcoating are spraying or brushing.

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What is Asphalt?

A Mixture: Asphalt is a composite material made up of two primary components:

Aggregates: These are granular materials like crushed stone, sand, and gravel, which make up the bulk of the asphalt mixture.

Bitumen: This is a sticky, black, highly viscous liquid derived from crude oil. It acts as the binder, holding the aggregates together.

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Types of Asphalt Used in Residential Applications

Driveway Mix (41A or DuraDrive)

Driveway Mix, commonly referred to as 41A or DuraDrive, is specifically designed for low traffic areas. This mix contains a larger percentage of sand, which provides the asphalt surface with a smooth and uniform appearance. The higher sand content also makes Driveway Mix more pliable, making it easier to work with and better able to resist cracking from minor settlements and extreme temperature changes.

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Types of Asphalt Used in Residential Applications

MV4

MV4 is considered a medium volume mix, making it suitable for higher traffic areas compared to Driveway Mix. This mix includes a greater percentage of larger aggregates, enhancing its durability and resistance to rutting and marking. The durability of MV4 can extend the overall life of the asphalt surface, making it a preferred choice for residential driveways and private roads that experience moderate traffic.

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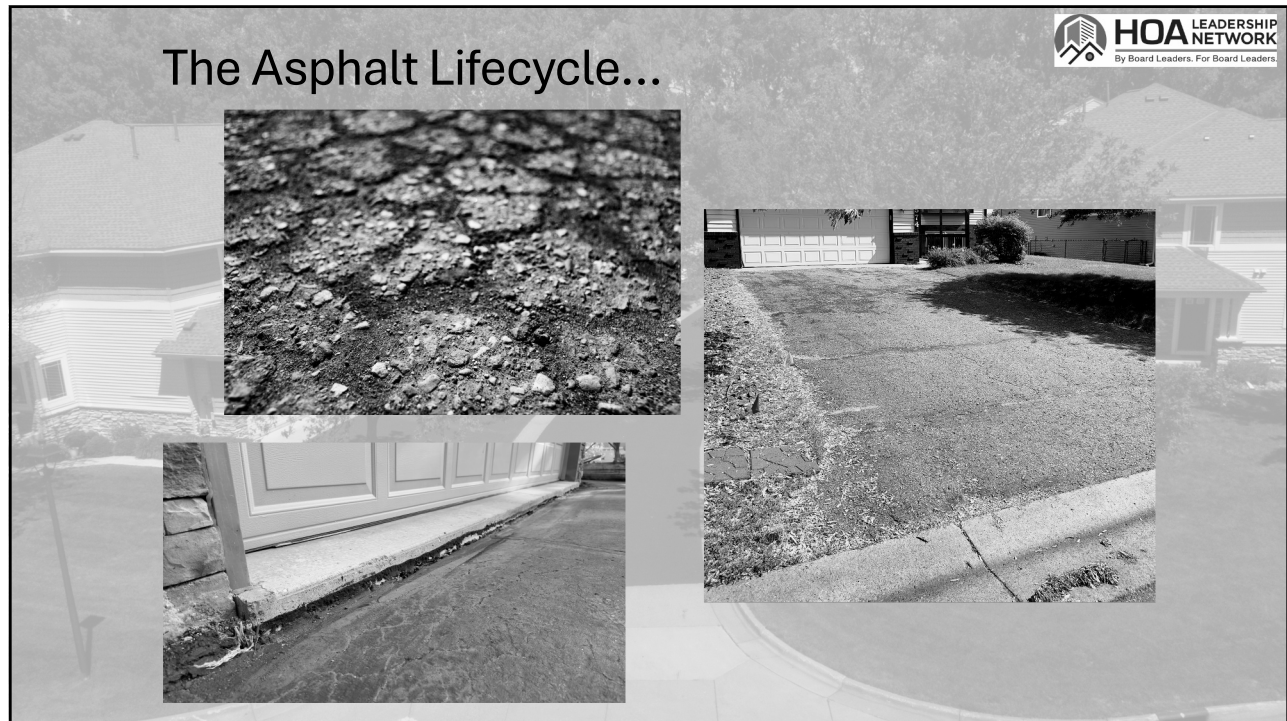


Types of Asphalt Used in Residential Applications

SuperPave

SuperPave is a mix specified by the Minnesota Department of Transportation (MNDot) and is known for its balanced composition of sands and larger aggregates. The oils and binders added to SuperPave offer a good balance of durability and functionality during installation. This mix is commonly used in road applications and is also a suitable option for busy parking lots. Due to the high quality materials used in its composition, SuperPave comes at a higher cost.

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Extending the Life of Your Asphalt Driveway:

Understanding the Aging Process

New: Dark, smooth, and flexible. Minimal maintenance needed.

Early Aging (5-10 years): Fades slightly, starts to lose flexibility. Preventative maintenance (sealcoating, crack sealing) becomes important.

Mid-Life (10-20 years): More noticeable fading and cracking. More frequent maintenance (crack filling, patching) required.

Late Life (20+ years): Significant fading, widespread cracking, and potential potholes. Extensive repairs or replacement may be necessary.

Asphalt ages through oxidation (hardening), loss of flexibility, and water damage, accelerated by traffic, climate, and poor drainage. Regular maintenance is key to extending its lifespan.

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Paving.

The Asphalt installation process.

Grading,
Base preparation,
Paving,
Compaction.



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Base Prep

Purpose:

Providing a stable and strong foundation to support the asphalt layer and prevent settling or cracking.

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Paving

Laying a mat of asphalt with a paving machine to create a drivable, long lasting, smooth surface.



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Types of asphalt repair

Infrared Asphalt Repair

- Newest technology
- No seams that will allow water to damage repair.



Cut out and replace

- Water is allowed into cuts. Potentially destroying the repair



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Sunken Garage Apron...The “bump out of your garage”



What happened here?

- The ground beneath the asphalt has settled and the surface followed.

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Infrared Asphalt Repair

Infrared asphalt repair uses heat to soften damaged asphalt, allowing it to be raked, rejuvenated, and compacted with new asphalt for a seamless, long-lasting patch. It's faster, cheaper, and more eco-friendly than traditional methods.



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What is Asphalt Sealcoating?

Asphalt **sealcoating** is the process of applying a protective layer over asphalt pavement to shield it from damage caused by **UV rays, water, oil, and chemicals**. This thin, liquid coating helps extend the life of the asphalt while improving its appearance with a fresh black finish.



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Thank you

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