Resurfacing Program

WHAT IS RESURFACING?
Resurfacing is performed primarily on streets which have been previously resurfaced or are currently seal-coated. The top 2-3 inches of the existing surface is milled off and replaced with new hot mix asphalt (HMA). The milling removes the old surface and creates a rough surface which allows the new asphalt to bond with the old pavement.

WHY DOES THE CITY RESURFACE CITY STREETS?
As streets age, it is necessary to remove and replace the top layer of asphalt. Fog Sealing and Micro-Surfacing applications enable the City to extend the time an overlay is needed, but it doesn't eliminate the need for a mill and asphalt overlay (resurfacing).

On average, the City mills and overlays a thoroughfare street every 10-15 years and a residential street about every 15-20 years. The difference in time is due primarily to traffic and truck volume.

CAN I DRIVE ON THE STREET WHILE THIS WORK IS BEING COMPLETED?
No. Tack oil and hot mix asphalt (HMA) is placed on the surface. You can't drive on the pavement until it has sufficiently cooled 2 to 4 hours, depending on air temperature.

Full Depth Patching Program

WHAT IS FULL DEPTH PATCHING?
When concrete pavement exhibits structural failure and joint deterioration, Full Depth Patching is completed. The process entails removing and replacing existing sections of concrete to the bottom of the pavement and restoring the subbase as necessary.

WHY IS FULL DEPTH PATCHING IMPORTANT?
Full Depth Patching can improve pavement rideability and structural integrity and can extend pavement service life.

Diamond Grinding

WHAT IS DIAMOND GRINDING?
Diamond grinding is a concrete pavement rehabilitation technique that corrects irregularities such as faulting and roughness on concrete pavements. Diamond grinding should be used in conjunction with other concrete pavement rehabilitation techniques. Diamond grinding restores rideability by removing surface irregularities caused by construction curling, slab warping, faulting, and roughness caused by concrete pavement rehabilitation construction work.

Reconstruction Program

WHAT IS RECONSTRUCTION?
Reconstruction is a complete removal of the street to include subgrade reconstruction as necessary. The pavement may be either a concrete section or a full depth asphalt with concrete curb and gutters.

WHEN IS RECONSTRUCTION REQUIRED?
Reconstruction is required when the street has reached the end of its useful life; and when no other maintenance activity can restore the street to a "Fair" condition or prevent it from deterioration quickly.

WILL I STILL HAVE ACCESS TO MY STREET DURING THE PROCESS?
Generally, you will have access. Although the street will be closed to though traffic during construction, there will be brief periods when you may not have access to you driveway for several days to allow your new concrete driveway approach to cure.

Q: HOW WILL I KNOW WHEN MY STREET WILL BE UNDER CONSTRUCTION?

A: Letters will be mailed to residents in the spring of each year that describes the work to be performed. Door hangers will be used to notify residents that their street will be under construction a minimum of 72 hours in advance of any work.

For more information, please contact the Public Works Department at (563) 344-4055

Paving the Way

Bettendorf
a premier city

A GUIDE TO STREET MAINTENANCE IN BETTENDORF

The following chart illustrates the Pavement Condition Index (PCI) range and possible treatment strategies.

PCI Range	Condition	Description	Recommended Rehabilitation
100 - 86	Excellent	No Significant Distress	Crack Seal, Fog Seal, Slurry Seal
85 – 70	Very Good	Little distress, may include utility patch work that is in good condition, little weathering	Crack Seal/ Micro-surfacing
69 – 55	Good	Slightly to moderately weathered, some distress, some patch work	Patching, Micro-surfacing
54- 45	Fair	Severely weathered, moderate distress limited to non-load related cracking	Localized Patching, moderate to thin overlays
44 – 26	Poor	Moderated to severe distress including load related cracking	Patching, moderate overlays
25 – 11	Very Poor	Severe distress or large amounts of distortion or cracking throughout the roadway	Patching, heavy overlays, possible reconstruction
10 – 0	Failed	Pavement has failed; distress is beyond the capabilities of rehabilitation	Heavy Overlay or Reconstruction

Crack Seal Program

WHAT IS CRACK SEALING?
Crack sealing is a preventative street maintenance technique where cracks ranging in size from 1/8" to 3/4" in width are sealed with a rubberized asphalt product, creating long thick "snake like" lines on the street. Failure to seal cracks results in further cracking, potholes and eventually a major pavement breakdown, leading to unnecessary expensive repairs.

WHICH STREETS ARE CRACK SEALED?
All asphalt and concrete streets are evaluated and crack sealed as necessary to prevent water intrusion into the underlying sub-base.

CAN I DRIVE ON CRACK SEALING? Lanes may be open to traffic only after the sealer has set sufficiently so it will not pick up under traffic. Due to hot weather in the summer, crack seal is typically done in the fall or spring when the weather is cooler.

WHY HAVE A CRACK SEAL PROGRAM?
Crack sealing is a practical and cost effective measure, and is part of any good pavement management program.

Fog Seal Program

WHAT IS FOG SEALING?
A fog seal is an application of specifically formulated asphalt emulsion (a thin liquid oil) to an existing pavement surface. A fog seal gets its name from its spray application referred to as "fogging". A single application is applied between 1 to 3 year old asphalt pavement and lasts up to five years, extending the life of your pavement, and delaying more expensive resurfacing projects.

WHY FOG SEAL?
As asphalt pavement is subjected to traffic loads and ages, it oxidizes and cracks develop in the surface due in part to the pavement becoming more brittle. Oxidation is one of the reasons asphalt concrete pavement fades in color from the deep, rich black color everyone remembers from when the road was constructed or last resurfaced. Fog seal applications serve to seal narrow cracks, slightly restore lost flexibility to the pavement surface, provide a deep, rich black pavement surface color, and most importantly help preserve the underlying pavement structure.

HOW SOON CAN I DRIVE ON THE PAVEMENT AFTER IT HAS BEEN TREATED?
Streets that have been fog sealed are typically opened to traffic within four (4) hours of the application.

Micro-Surfacing/ Cape Seal Program

WHAT IS MICRO-SURFACING/ CAPE SEALING?
Micro-surfacing is another preventive street sealing technique that uses pre-mixed slurry of rock, polymer asphalt binders, cement, and filler materials to seal the entire roadway at a depth of about 3/8 inch. A Cape Seal is a chip seal covered with a slurry or micro-surface.

Micro-surfacing is typically applied on an intermittent, project-specific basis. Location, weather, traffic loading, and pavement conditions are factors used to determine if a micro-surfacing application is appropriate. Roadways selected for micro-surfacing treatment are commonly those which have slight to moderate distress, no rutting, and generally narrow crack widths, and in which a micro-surfacing treatment would help extend the pavement life until resurfacing becomes necessary.

WILL MY STREET BE CLOSED DURING THIS PROCESS? Yes. Micro-surfacing needs at least four (4) hours to set before the street can be opened to traffic.

WHY DOES THE CITY USE TREATMENTS SUCH AS MICROSURFACING AND CAPE SEAL RATHER THAN RESURFACING THEM WITH ASPHALT?
These applications are relatively inexpensive compared to overlaying a street with asphalt, which is significantly more expensive. The benefits from using a cape seal include a very smooth surface with an increased durability by sealing the subbase. Often the use of a chip seal is not popular with the public because of the rougher ride and loose stones. Micro-Surfacing provides a smooth surface that binds any loose aggregate, reducing stone loss. These methods can be used on all sealcoat and asphalt streets and is applied using specialized equipment.