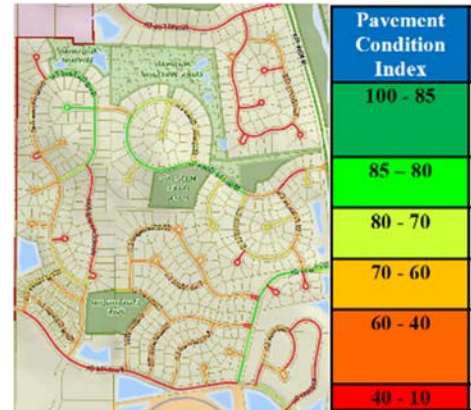
 <p>CITY OF ST. CHARLES ILLINOIS • 1834</p>	<b>AGENDA ITEM EXECUTIVE SUMMARY</b>		Agenda Item number: 5.E
	Title:	Presentation of 2024 Street Program	
	Presenter:	Chris Gottlieb	
<b>Meeting:</b> Government Services Committee		<b>Date:</b> November 27, 2023	
<b>Proposed Cost:</b> \$		<b>Budgeted Amount:</b>	<b>Not Budgeted:</b> <input type="checkbox"/>
<b>TIF District:</b> None			
<b>Executive Summary</b> (if not budgeted, please explain):			
<p>Staff will provide a brief information presentation regarding the 2024 Street Program including locations and funding mechanisms.</p>			
<b>Attachments</b> (please list):			
<p>*How Roads are Chosen summary document *How Roads are Maintained summary document *Map of 2024 Street Program</p>			
<b>Recommendation/Suggested Action</b> (briefly explain):			
None			

## How Roads are Chosen for Resurfacing

The City of St. Charles contains over 137 miles of roadways. Historically, roughly 4 miles of roadway is selected to be resurfaced or reconstructed based on the following criteria.

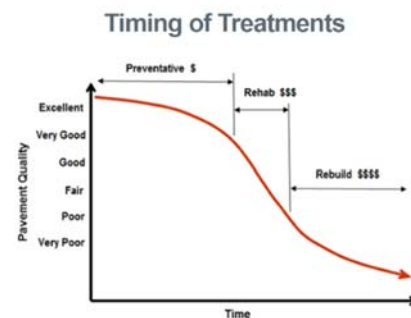
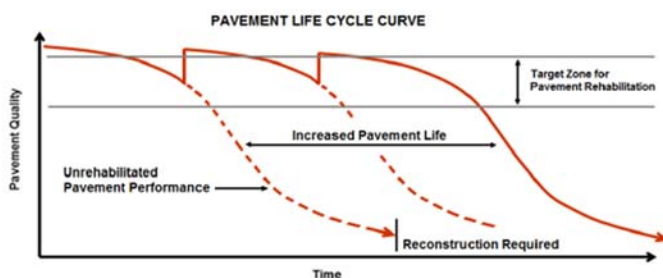
### Condition

Every five years the City has all roads in town scanned to determine the condition of their surface. The inspection vehicle also tests the strength of the base of the road providing a full picture of its overall condition. The City uses these data to determine what treatment is best for each road at this time. A number of factors like traffic, weather, base strength, and base material, impact how quickly a road ages. However, once a road reaches a certain condition its deterioration begins accelerating. In order to keep ahead of this, each year's program includes a number of roads that appear to be in "good shape". Addressing minor issues now will prevent more expensive issues in the future. There are also times when it makes the best economic sense to do nothing while planning for a more comprehensive future repair. For more information on how roads are maintained, please see the How Roads are Maintained document on the City website.



### Location

Our annual program is built by clustering groups of roads all throughout town. Repairs are needed all around the City, so we want to make sure that our program spans the town. Once our general work areas are chosen however, we try to do a number of streets that are close together. This minimizes the amount of time the Contractor spends moving from location to location. This increases their efficiency and reduces costs for both the Contractor and the City



### Coordination

In a city as old as St. Charles, many areas need utility upgrades as well as roadway repairs. The various divisions in Public Works coordinate projects so that road work can closely follow utility work. As a result, work on some roads may be delayed until the utility work is ready to go. This coordination allows us to make the best use of both our roadway and utility dollars.

### Program Timeline

Development of the roadway program takes place on the following timeline:

January: Work goes out to bid

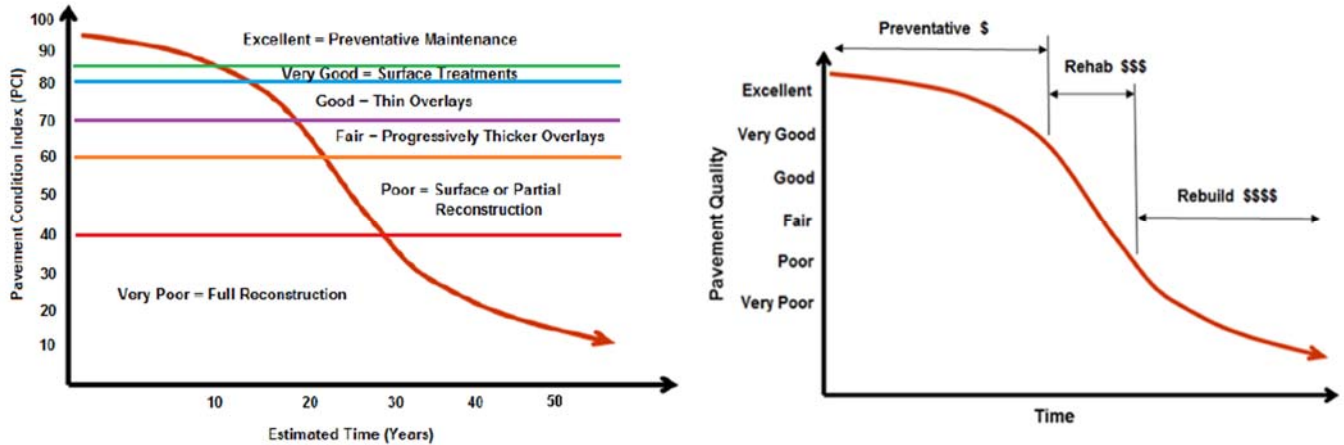
March-April: Street selection and inspections for following year's program

May-October: Construction, continue inspections for the next street program

October-December: Create construction plans

## How Roads are Maintained

The City conducts regular evaluations of its roadway network to make sure each road receives the right maintenance at the right time to increase its lifespan in the most cost-effective way possible. Depending on the age and condition of the road, the treatment may be preventative maintenance, rehabilitation, or reconstruction. Below are the most common methods currently used by the City of St. Charles.



## Preventative Maintenance

### Crack Filling:

Crack filling is used to prevent water from getting into the roadway base and weakening it. We seal the center and curb lines of roads the year after they are resurfaced. Additionally, we seal surface cracks throughout town annually.

### Full Depth Patching:

The full depth patching program removes and replaces the top 2" of asphalt in specific problem areas. This is used on older roads that have localized damage but are not ready for a full resurfacing. It is also used on roads that cannot be resurfaced until after utility improvements have taken place. The program focuses on the east side of the Fox River in odd years and on the west side in even years.

### Total Patching:

Total-patching takes place regularly during the year to hit small problem spots throughout town. This is a longer lasting version of a pothole patch, designed to prevent further road deterioration. Crews spray a mixture of aggregate and bitumen onto the problem area. The mix then cures and hardens for five days, after which a sweeper truck goes through to clean up any loose aggregate.

### Pothole Patching:

Pothole patching is a short-term repair using cold mix asphalt to fill holes in the roadway. This repair method is generally used after the hot-mix asphalt plants have closed for the season. Filling in the holes reduces water getting into the roadway base and provides a driveable surface until a long-term fix can be implemented.

## **Rehabilitation**

### **Resurfacing:**

This work involves milling off the surface of the roadway and replacing it with new asphalt. Depending on the condition of the roadway, we may remove anywhere from a thin layer to all of the existing asphalt. The road is typically paved in two layers. The first smooths out any inconsistencies, while the second provides a durable riding surface. Curb and sidewalk repairs are generally included as part of resurfacing projects.

## **Rebuilding**

### **Base Reclamation:**

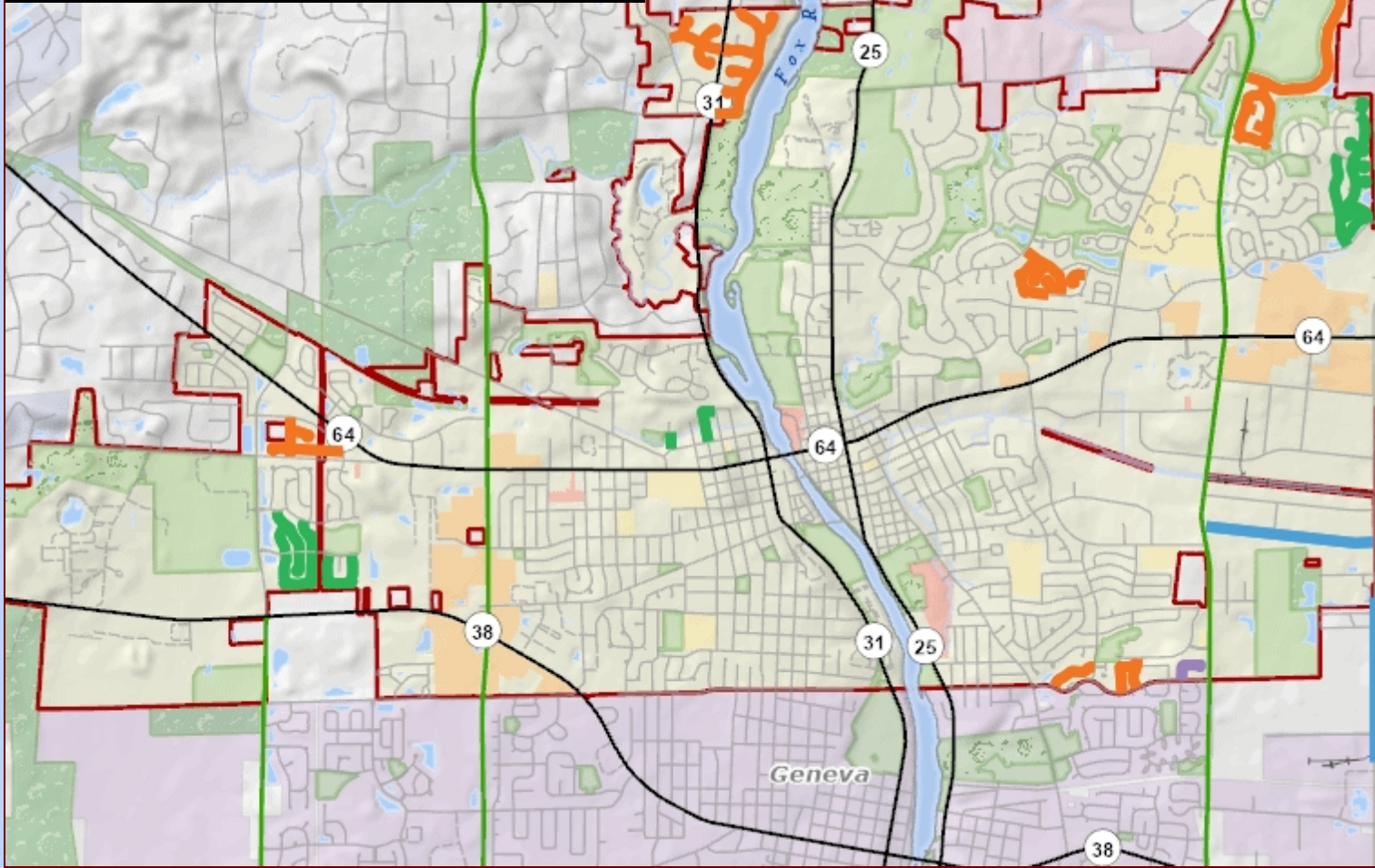
The City uses base reclamation with cement on roads that have a pozzolanic base underneath the asphalt. The process involves removing all of the asphalt, then mixing cement powder into the existing base. The base is then compacted and allowed to cure and gain full strength. After curing, the road is paved with two layers of asphalt. The first layer provides a structural base for the road, while the second provides a durable riding surface. Curb and sidewalk repairs are generally included as part of base reclamation projects.

### **Full Reconstruction:**

For roads that are completely deteriorated, the City will perform a full reconstruction. This involves removing all the existing pavement materials and then rebuilding the road with a new stone base and new asphalt. The road is paved with two layers of asphalt. The first layer provides a structural base for the road, while the second provides a durable riding surface. Full reconstruction often requires replacement of all of the curb. Sidewalk repairs are also generally included as part of full reconstruction projects.



Color	Fund Source	Length (miles)	Budget
Orange	Home Rule Tax	7.1	\$ 3,667,000.00
Grey	Rebuild Illinois*	0.2	\$ 145,000.00
Green	Motor Fuel Tax	3.5	\$ 1,500,000.00
Light Blue	Capital - Swenson	0.7	\$ 1,050,000.00
Dark Blue	Capital - Kautz**	0.3	\$ 635,000.00
	<b>Total</b>	<b>11.9</b>	<b>\$ 6,997,000.00</b>



Street	From	To
Swenson Ave.	S. Kirk Rd.	Kautz Rd.
Kautz Rd.	Commerce Dr.	Geneva City Limit
Abbeywood Dr.	IL Rt 31	Greenwood Ln
Brittany Ct	Abbeywood Dr	Cul-de-sac
Easton Place	Abbeywood Dr	Cul-de-sac
Pendleton Ct	Abbeywood Dr	Cul-de-sac
Fox Glen Dr.	Glenbriar Dr.	Army Trail Rd.
Fox Glen Ct.	Fox Glen Dr.	Cul-de-sac
Glenbriar Dr.	Fox Glen Dr.	EOP
Glenbriar Ct.	Glenbriar Dr.	Cul-de-sac
Glen Eagles Ct.	Fox Glen Dr.	Cul-de-sac
King Alford Ct.	King James Ave.	Cul-de-sac
King William Ct.	King James Ave.	Cul-de-sac
King Richard Ct.	King James Ave.	Cul-de-sac
King James Ct.	King James Ave.	Cul-de-sac
Queen Anne Ct.	King James Ave.	Cul-de-sac
King Edward Ave	Foxfield Dr.	King Richard Cir.
King James Ave.	King Edward Ave.	King Alford Ct.
King Charles Ln.	King Edward Ave.	King Henry Ln.
King George Ln.	King Edward Ave.	King Henry Ln.
King Henry Ln.	Foxfield Dr.	King James Ave.
Chandler Ave.	Division St.	EOP
Walnut Hill Ave.	Division St.	S. Tyler Rd.
Valley View Dr.	Horizon Dr.	Pleasant Plains Dr.
Horizon Dr.	Red Sky Dr.	Valley View Dr.
Red Sky Dr.	Springfield Way	S. End
Langston Cir.	Heritage St.	Heritage St.
Patricia Ln.	Division St.	Via Veneto Dr.
Raphael Ct.	Red Rose Rd.	Cul-de-sac
Red Rose Rd.	Renard Ln.	Campton Hills Rd.
St. Michel Ln.	Red Rose Rd.	Renard Ln.
Huntington Rd.	Forest Ridge Rd.	Fox Chase Blvd.
Essex Ct.	Huntington Rd.	Cul-de-sac
Foxhill Ct.	Forest Ridge Rd.	Cul-de-sac
Sterling Ct.	Forest Ridge Rd.	Cul-de-sac
Forest Ridge Rd.	Sterling Ct.	Huntington Rd.
Via Veneto Dr.	Division St.	Cumberland Green Dr.
Meadow Dr.	Crane Rd.	N Limit
Green Willow Ln.	Meadow Dr.	Cul-de-sac
Thornhill Farm Rd	IL Rt 31	Meadow Dr.
Kensington Pl.	Meadow Dr.	Cul-de-sac
Edgewild Ct.	Meadow Dr.	Cul-de-sac
Crane Rd.	IL Rt 31	Meadow Dr.
9th Street	State St.	N Limit
6th St. & Mark St.	State St.	N 5th St.
Royal Fox	N Kirk Rd	N Kirk Rd
Turnberry	Royal Fox Dr.	Royal Fox Dr.
Royal Kings Ct	Turnberry Rd.	Cul-de-sac
Royal Queens Ct	Turnberry Rd.	Cul-de-sac
Royal Ashdown	Turnberry Rd.	Cul-de-sac
Royal Troon	Royal Fox Dr.	Cul-de-sac



Data Source:  
City of St. Charles, Illinois  
Kane County, Illinois  
DuPage County, Illinois  
Projection: Transverse Mercator  
Coordinate System: Illinois State Plane East  
North American Datum 1983  
Printed on: November 13, 2023 11:05 AM

\* 2024 is the last year for Rebuild Illinois Funds

\*\* Kautz is a joint project with Geneva and is receiving fund from TARP, STP-Local, and ITEP. St. Charles local share accounts for 28% of construction costs.

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