

## SAGINAW COUNTY ROAD COMMISSION

INFORMATIONAL REFERENCE GUIDE

## **INTRO**



**Dennis Borchard** *Managing Director* 

Saginaw County
Road Commission

3020 Sheridan Avenue Saginaw, Michigan 48601

Phone: (989) 752-6140 Website: <u>www.scrc-mi.org</u> The Saginaw County Road Commission has put together this Informational Reference Guide in order to help educate you as to who we are, what we do and options that are available for the local townships to maintain, and potentially extend, the life of the road system. We have taken this opportunity to explain different maintenance options that are available. Also included are an explanation of such things as how the Road Commission is funded & how speed limits are established.

We hope that this Informational
Reference Guide serves as your "go-to" in
understanding & planning maintenance
services and options. As always, our office
and staff are available if you need further
information or an estimate on a particular
service or project.

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## **COMMISSIONERS**

The Saginaw County Board of Road Commissioners consists of a five members board appointed by the Saginaw County Board of Commissioners. Annually, the Saginaw County Board of Road Commissioners organize with the election of a member to serve as chairperson. The Board also elects a member to serve as the vice-chairperson.

Our 2023 Board of Road Commissioners are pictured below:



Richard Crannell, P.E.



**Deb Kestner** *Vice Chairman* 



Todd Hare

Member



John Sangster

Member



Ed Wasmiller Member

## **SCRC CONTACTS**

#### **Managing Director**

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#### **Director of Maintenance**

Dan Medina

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Cell Phone: (989) 233-0837

Email: medinad@scrc-mi.org

#### **District 2 Foreman**

(Birch Run, Blumfield, Bridgeport, Buena Vista, Frankenmuth, Spaulding & Taymouth)

Todd Ferguson

Office Phone: (989) 399-3774

Cell Phone: (989) 763-8474

Email: fergusont@scrc-mi.org

#### **District 3 Foreman**

(Albee, Brady, Brant, Chapin, Chesaning, Maple Grove, Marion & St. Charles)

Jason Brown

Office Phone: (989) 399-3767

Cell Phone: (989) 239-9459

Email: brownj@scrc-mi.org

#### **District 4 Foreman**

(Fremont, James, Jonesfield, Lakefield, Richland, Swan Creek & Thomas)

Sean Reinig

Office Phone: (989) 399-3762

Cell Phone: (989) 780-7898

Email: reinigs@scrc-mi.org

#### **District 6 Foreman**

(Carrollton, Kochville, Saginaw, Tittabawassee & Zilwaukee)

Chris Burke

Office Phone: (989) 399-3768

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#### Administrative Assistant / Board Secretary

Sarah Gross

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#### **Permit / Safety Officer**

Haley Christensen

Office Phone: (989) 399-3751

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## Project Manager / Safety Officer

Tim Brown

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#### **Maintenance Superintendent**

Rob Hudec

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#### **Office Receptionist**

Christina Rodriguez

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## SCRC MAINTENANCE SERVICES

Addressing Drainage Issues

Catch Basin Maintenance

Snow & Ice Patrol / Anti-Icing

Gravel Road Maintenance

Pavement Marking

Tile Jetting (Hydro Excavating)

Crack Sealing

Grading

**Brush Cutting** 

Mowing

Sweeping

Sign Fabrication / Maintenance

Down Tree / Storm Cleanup

Phragmite Spraying

Patrol Patching

Cattail Spraying

Road Patcher

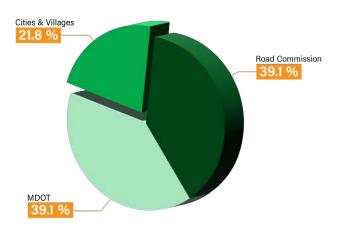
Shoulder Maintenance

## ROAD COMMISSION FUNDING

The Road Commission does not directly receive any of your property tax dollars. As established by the State Constitution, Michigan's road commissions are funded primarily through the state collected gas tax, vehicle registration fees, and diesel tax. Your property tax dollars go to your township, the county general government, the state, your school district, etc. Your township contributes to road projects through their general fund, special assessments, and/or mileages.

#### The Michigan Transportation Fund

The primary source of revenue for county road agencies comes from the Michigan Transportation Fund (MTF). State fuel taxes, vehicle registration fees and other transportation-related fees are deposited into MTF and distributed according to a formula established in Public Act 51 of 1951. The formula is 39.1% MDOT, 39.1% Road Commission, and 21.8% Cities and Villages.



Excise tax on recreational marijuana was allocated to the MTF for distribution on the State Trunkline Fund, county road commissions, and cities and villages during the fiscal year of 2021 and will continue to be allowed in subsequent years. The projected revenue for the next three fiscal years is \$79.6 million in 2023, \$83.6 million in 2024, and \$88 million in 2025 (State of Michigan).

For many years, the largest source of income to the MTF has been the state gasoline tax. A combination of more fuel-efficient vehicles and motorists changing driving habits and purchasing less fuel have eroded the power of fuel taxes, making their future as a long-term funding solution uncertain.

The Michigan Legislature increased the gasoline tax in 1997 from 15 cents per gallon to 19 cents per gallon. The tax on diesel fuel was not increased. Of this 4 cent increase, 3 cents were distributed to state and local road agencies. The other penny was dedicated to bridges, with one half cent directed to MDOT to fix seriously deficient bridges on the state road system, and the other half cent directed to local road agencies under the Local Bridge Program.

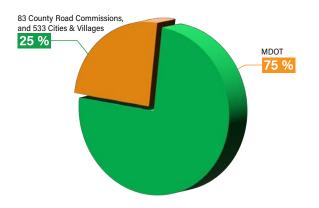
In 2015, the State of Michigan successfully passed a
Transportation Package that increased our road funding. In 2019,
additional revenue was phased in from income tax redirection
and was set to phase in over a period of 3 years and continue
after those initial 3 years. What did that mean for Saginaw
County? In 2023, fuel tax per gallon increased to 28.6 cents per
gallon. This is also the same rate for alternative fuel based on
Motor Carrier Fuel Act (MCFA), MCL 207.211 effective 1/1/2023.

# ROAD COMMISSION FUNDING CONTINUED

#### Federal Funds

A federal fuel tax of 18.4 cents per gallon and 24.4 cents per gallon is collected on each gallon sold in the United States.

Michigan receives approximately 99 cents on each dollar sent to Washington D.C. The MFTA must annually update the tax rates to equal to the lesser of 5% / inflation rate.



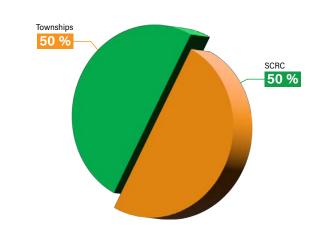
Approximately 75% of federal funding is allocated to MDOT, leaving 25% to be distributed among 83 county road commissions and 533 cities and villages across the state. These funds are dispersed according to regional formulas.

Both MDOT and local road agencies are required to provide a match to federal funds. If local and state road agencies cannot provide the matching funds, the federal funds are returned to the Federal Highway Trust Fund and made available to other states.

#### Local Funds

The ability of counties and townships to generate additional funding with special assessments and mileages varies significantly around the state, ranging from 0% to as much as 20%.

The county also has a matching program for the townships. We allocate a total of 8.5% of the yearly revenue from the Michigan Transportation Fund as a match to assist in local road projects and maintenance. The amount allocated to each township under this matching program is based on their population and the number of local road miles. The county pays 50% and the township pays 50% (in most cases).



## TOWNSHIP AUTHORIZATION FORM

Township Name:	Date:
Township Official:	
Construction Year:	(Flease Print Clearly Name and Title)
construction rear;	1
	ONE OF THE FOLLOWING: se sure to include Authorizing Signature)
Estimate ONLY at this time:  (check here and sign)	Signature of Authorized Township Official:
Authorize to PROCEED with project:  (check here and sign) (Township will participate in cost of project)	Signature of Authorized Township Official:
Township wishes to CANCEL project:  (check here and sign)	Signature of Authorized Township Official:
Road Name:	
FROM:	TO
Is this a Township / County Line Road?	YES NO
,	TES NO
(If yes please indicate the other Township /	/ County)
(If yes please indicate the other Township / All Projects on Township or County Line R	/ County)Roads Require You to Contact the Neighboring Township to
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in th	/ County)Roads Require You to Contact the Neighboring Township to
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in th	County) Roads Require You to Contact the Neighboring Township to his Request.  I (Please mark an "x" next to the appropriate type)
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in th <u>TYPE OF CONSTRUCTION</u>	/ County)Roads Require You to Contact the Neighboring Township to his Request.
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in th  TYPE OF CONSTRUCTION  Annual Dust Control	County) Roads Require You to Contact the Neighboring Township to his Request.  (Please mark an "x" next to the appropriate type)  Drainage Only
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in th  TYPE OF CONSTRUCTION  Annual Dust Control  Crack Sealing	Roads Require You to Contact the Neighboring Township to his Request.  I (Please mark an "x" next to the appropriate type)  Drainage Only Design - Survey
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in th  TYPE OF CONSTRUCTION  Annual Dust Control  Crack Sealing Chip & Seal	County)  Roads Require You to Contact the Neighboring Township to his Request.  (Please mark an "x" next to the appropriate type)  Drainage Only Design - Survey Drainage & Chip Seal
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in th  TYPE OF CONSTRUCTION  Annual Dust Control  Crack Sealing  Chip & Seal  Sweeping After Local Chip Seal	County)  Roads Require You to Contact the Neighboring Township to his Request.  I (Please mark an "x" next to the appropriate type)  Drainage Only Design - Survey Drainage & Chip Seal Drainage & Paving
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in the TYPE OF CONSTRUCTION  Annual Dust Control  Crack Sealing  Chip & Seal  Sweeping After Local Chip Seal  Chip Lock  Maintenance Limestone  Hot Patching	A County)  Roads Require You to Contact the Neighboring Township to this Request.  I (Please mark an "x" next to the appropriate type)  Drainage Only  Design - Survey  Drainage & Chip Seal  Drainage & Paving  Paving Only  Bridge Repair  Bridge Replacement
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in the TYPE OF CONSTRUCTION  Annual Dust Control  Crack Sealing  Chip & Seal  Sweeping After Local Chip Seal  Chip Lock  Maintenance Limestone  Hot Patching  Cross-Culvert Replacement	A County)  Roads Require You to Contact the Neighboring Township to his Request.  I (Please mark an "x" next to the appropriate type)  Drainage Only  Design - Survey  Drainage & Chip Seal  Drainage & Paving  Paving Only  Bridge Repair  Bridge Replacement  Traffic Signal
(If yes please indicate the other Township / All Projects on Township or County Line R Obtain Authorization for Participation in the TYPE OF CONSTRUCTION  Annual Dust Control  Crack Sealing  Chip & Seal  Sweeping After Local Chip Seal  Chip Lock  Maintenance Limestone  Hot Patching	A County)  Roads Require You to Contact the Neighboring Township to this Request.  I (Please mark an "x" next to the appropriate type)  Drainage Only  Design - Survey  Drainage & Chip Seal  Drainage & Paving  Paving Only  Bridge Repair  Bridge Replacement

This form can be found on our website:

www.scrc-mi.org

## TOWNSHIP PARTICIPATION CHART

Title: Township Participation Chart in Construction & Maintenance Work

\*This chart only includes local road projects\*

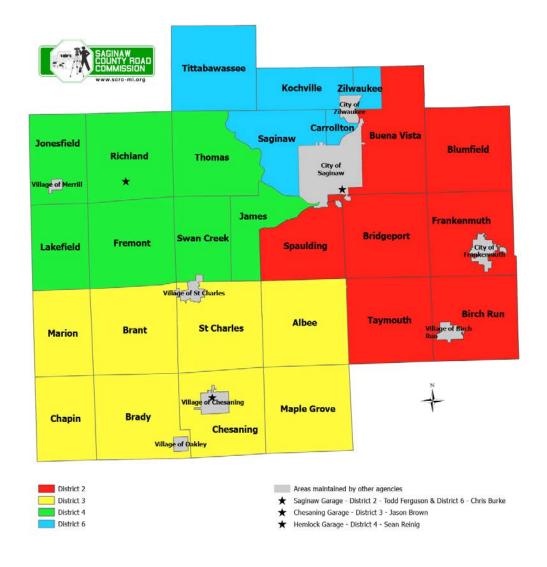
\*\*The Saginaw County Road Commission covers all costs for primary road projects\*\*

Description of Work	Township Cost	Chargeable against Rd Comm. Allocation to Twp.	Chargeable against Road Millage
Roadside Drainage Construction	100% of All Materials	No	Yes
or Reconstruction	SCRC covers 100% Labor &		
	Equipment Usage		
Cross Culvert Replacement	100% of All Materials	No	Yes
	SCRC covers 100% Labor &		
	Equipment Usage		
Concrete Patches	50 % of Total Costs	No	Yes
	SCRC match capped at \$50,000		
Bridge Replacement	100% of All Materials	No	Yes
	SCRC covers 100% Labor &		
	Equipment Usage		
	(Unless Federal funds are used, no		
	cost to Twp)		
Bituminous Resurface	50% of Total Cost	Yes	Yes
	(until allocations are exhausted)		
Gravel Resurface	50% of All Materials	Yes	Yes
(Maintenance/Construction)	SCRC covers 100% Labor &		
	Equipment Usage		
	(until allocations are exhausted)		
Brine	50% of Total Cost	Yes	Yes
	(until allocations are exhausted)		
Crack Sealing	50% of Total Cost	Yes	Yes
	(until allocations are exhausted)		
Chip & Seal	50% of Total Cost	Yes	Yes
·	(until allocations are exhausted)		
Hot Patching	50% of Total Cost	Yes	Yes
-	(until allocations are exhausted)		
County Line Project	25% Township	No	Yes
-	25% SCRC		
	50% Other County		

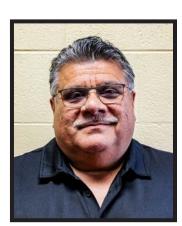
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## SAGINAW COUNTY MILEAGE TOTALS



	PRIMARY	LOCAL	TOTAL	COUNTY
	MILEAGE	MILEAGE	MILEAGE	POPULATION
County Total	505.13	1,346.73	1,851.86	132,468



Director of Maintenance

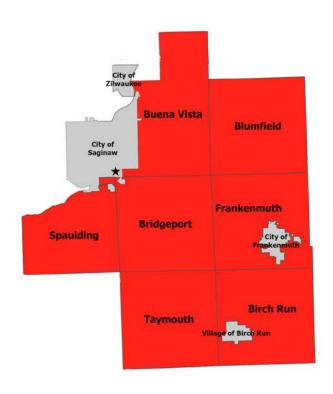
Dan Medina



Maintenance Superintendent Rob Hudec

<sup>\* \* \*</sup> All miles are based on centerline miles - not lane miles. \* \* \*

## DISTRICT 2 MILEAGE





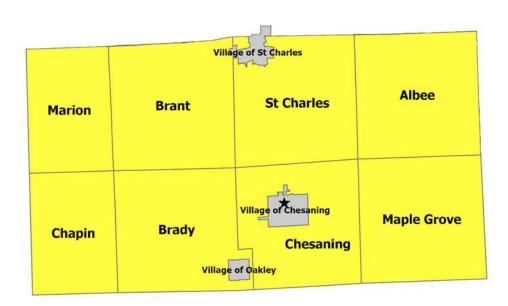
District 2 Foreman

Todd Ferguson

Township Name	Primary Mileage	% of Primary Mileage	Local Mileage	% of Local Mileage	Total Mileage	% of Total Mileage	Population	% of Population
Birch Run	20.06	4.0%	55.71	4.1%	75.77	4.1%	4,363	3.3%
Blumfield	2.54	0.5%	60.49	4.5%	63.03	3.4%	1,850	1.4%
Bridgeport	44.38	8.8%	71.56	5.3%	115.94	6.3%	10,104	7.6%
Buena Vista	20.52	4.1%	82.44	6.1%	102.96	5.6%	7,664	5.8%
Frankenmuth	16.44	3.3%	62.60	4.6%	79.04	4.3%	1,895	1.4%
Spaulding	7.24	1.4%	26.70	2.0%	33.94	1.8%	1,975	1.5%
Taymouth	31.89	6.3%	52.78	3.9%	84.67	4.6%	4,065	3.1%
TOTAL DISTRICT 2	143.07	28.4%	412.28	30.5%	555.35	30.1%	31,916	24.1 %

<sup>\* \* \*</sup> All miles are based on centerline miles - not lane miles. \* \* \*

## DISTRICT 3 MILEAGE





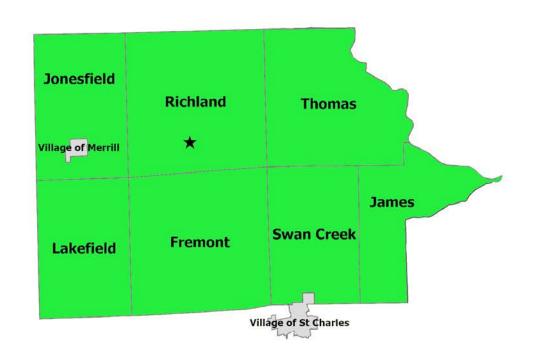
District 3 Foreman

Jason Brown

Township Name	Primary Mileage	% of Primary Mileage	Local Mileage	% of Local Mileage	Total Mileage	% of Total Mileage	Population	% of Population
Albee	27.24	5.4%	42.03	3.1%	69.27	3.7%	2,046	1.5%
Brady	12.14	2.4%	54.08	4.0%	66.22	3.6%	1,843	1.4%
Brant	18.97	3.8%	61.92	4.6%	80.89	4.4%	1,802	1.4%
Chapin	8.03	1.6%	36.23	2.7%	44.26	2.4%	928	0.7%
Chesaning	17.20	3.4%	36.34	2.7%	53.54	2.9%	2,318	1.7%
Maple Grove	18.24	3.6%	46.40	3.4%	64.64	3.5%	2,676	2.0%
Marion	14.63	2.9%	32.62	2.4%	47.25	2.6%	759	0.6%
St. Charles	17.72	3.5%	45.99	3.4%	63.71	3.4%	1,399	1.1%
TOTAL DISTRICT 3	134.17	26.6%	355.61	26.3%	489.78	26.5%	13,771	10.4%

<sup>\* \* \*</sup> All miles are based on centerline miles - not lane miles. \* \* \*

## DISTRICT 4 MILEAGE



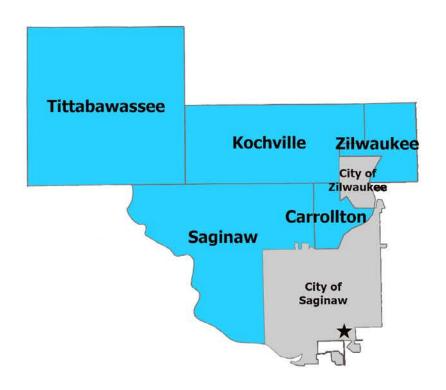


District 4 Foreman
Sean Reinig

Township Name	Primary Mileage	% of Primary Mileage	Local Mileage	% of Local Mileage	Total Mileage	% of Total Mileage	Population	% of Population
Fremont	30.56	6.0%	48.72	3.6%	79.28	4.3%	1,998	1.5%
James	7.75	1.5%	17.02	1.3%	24.77	1.3%	1,792	1.4%
Jonesfield	13.56	2.7%	27.03	2.0%	40.59	2.2%	955	0.7%
Lakefield	17.41	3.4%	28.78	2.1%	46.19	2.5%	894	0.7%
Richland	21.28	4.2%	71.86	5.3%	93.14	5.0%	3,955	3.0%
Swan Creek	6.36	1.3%	35.72	2.7%	42.08	2.3%	2,248	1.7%
Thomas	24.02	4.8%	73.47	5.5%	97.49	5.3%	11,931	9.0%
TOTAL DISTRICT 4	120.94	23.9%	302.6	22.5%	423.54	22.9%	23,773	17.3%

<sup>\* \* \*</sup> All miles are based on centerline miles - not lane miles. \* \* \*

## DISTRICT 6 MILEAGE





District 6 Foreman

Chris Burke

Township Name	Primary Mileage	% of Primary Mileage	Local Mileage	% of Local Mileage	Total Mileage	% of Total Mileage	Population	% of Population
Carrollton	8.14	1.6%	28.60	2.1%	36.74	2.0%	5,750	4.3%
Kochville	20.49	4.1%	29.80	2.2%	49.57	2.7%	4,911	3.7%
Saginaw	40.56	8.0%	147.15	10.9%	187.71	10.1%	41,679	31.5%
Tittabawassee	32.18	6.4%	68.49	5.1%	100.67	5.4%	10,606	8.0%
Zilwaukee	5.58	1.1%	2.92	0.2%	8.5	0.5%	62	0.0%
TOTAL DISTRICT 6	106.95	17.2%	276.96	20.5%	383.15	20.7%	63,008	47.5%

<sup>\* \* \*</sup> All miles are based on centerline miles - not lane miles. \* \* \*

## **SCRC FAST FACTS**



**27 Townships** 



118 Trucks



1850 Road Miles Maintained



3474 Culverts Maintained



132,468 Township Residents



207 Bridges

## ROAD MAINTENANCE



A road surface will only last so long. The weight of vehicles and movement of the earth below causes cracks. Water infiltrates the cracks, freezes and thaws, and causes the pavement to deteriorate.

One of the most cost-effective ways to extend the life of a road surface is called chip sealing. As practiced by the Saginaw County Road Commission, the chip seal process can extend roadway life by five to seven years.

During the process, a layer of emulsion – a special formulation of asphalt and polymers – is spread on the road surface. Then a layer of stone "chips" are embedded in the emulsion. These stones are carefully graded to be the same size, and consist of a 50/50 blend of limestone and trap rock. The emulsion helps seal out water, while the stone surface is hard, protective and provides a level of skid resistance.

## NEW CONSTRUCTION



Once a road has surpassed maintenance repair, the only way to salvage it is to reconstruct it.

Reconstruction of a road is a very costly process.

The old road must be removed and a new sub-base, base and surface must be built. Normally during these types of projects, we also include roadside drainage work to help ensure that water properly drains off the road and does not pool on or under the new road causing accelerated deterioration.

Road reconstruction can shut down a stretch road for an extended amount of time. The cost of total reconstruction including drainage is approximately \$350,000 — \$750,000 per mile.

Long term integrity of a road is dependent upon proper routine maintenance procedure such as chip seal, crack seal, and shoulder maintenance will help ensure that capital investments reach their full life cycles.

## ROADSIDE DRAINAGE & DITCH CLEANING

#### **Authority Over Roadside Drainage**

Drainage Responsibility—Roadside ditches, swales, storm sewer, culverts, or other similar drainage features are installed to convey storm water from the road surface and roadbed to an outlet such as a pond, county drain, creek, infiltration area, or other waterway.

These roadside drainage systems are typically located in the county road right-of-way and maintained by the Road Commission or in some instances the Drain Commissioner.

The primary role of roadside drainage is to drain the road. In many cases, it also provides an opportunity to help drain adjacent properties.

#### **Maintaining Proper Drainage**

A proper roadside drainage system helps reduce damage to both the road surface and the underlying layers of the roadbed from water. Flooding, washouts, and potholes coincide with poor drainage, which typically results in costly repairs. Throughout the year, the Road Commission and Drain Commissioner are committed to maintaining their respective drainage systems to improve poor drainage within and alongside roadways.





#### **Help Maintain Roadside Drainage**

Recognizing the purpose of the Roadside Drainage system and qualities of effective, environmentally friendly drainage is the first step. Adjacent property owners should not do the following activities:

- Place any materials in or alongside the roadside ditches including: yard debris such as grass clippings or leaves (burning still contributes to the problem), landscaping such as trees or shrubs, or any other items that may impede drainage.
- Scrape, excessively mow, or expose bare soil near or within a roadside drainage system, as this can contribute to erosion and sediment pollution.
- Fertilize or apply herbicides near a roadside drainage system, as this may pollute the water.

Driveway culverts are the homeowners responsibility to maintain and repair, if damaged. Property owners adjacent to public roads are encouraged to proactively maintain their driveway culverts or other private drainage system to keep them clear of debris and obstructions.

## SHOULDER MAINTENANCE

It is done around the same time as ditching projects. We get rid of the high shoulders throughout the county to help water flow into the ditch instead of flooding the road. By doing this it helps lengthen the life of the roads. This is also done to most chip seal routes before the job takes place.

The Force Feeder Loader is a machine that helps collect and get rid of the excess dirt or grass from the shoulder after it has been graded. This machine helps to be more productive and efficient.

We also mow and cut down brush on the shoulders throughout the county. While most of it happens in the spring and summer, it is an all year round job when the weather permits.







### **GRAVEL ROAD MAINTENANCE**

Properly maintained gravel roads have the following features:

- Good Road Gravel: This consists of gravel, sand, and fines (clay and silt). A good blend has a mixture of all three.
   The clay is the binder that helps hold the gravel in place.
- A Proper Crown: This allows water to drain off the road surface and into the ditches. Water retained on the roadway can lead to rutting and potholes.
- Drainage: In relatively level terrain, the water collects at the shoulder line and seeps into the subgrade, often causing the whole roadway to soften. Removal of high shoulders and effectively restoring roadside ditches will result in a road that is easier to maintain afterwards.
- Compacted Surface: Gravel roads should have a tight, impervious surface in order to drain properly. Rollers and heavy trucks are used to compact and lock the irregular gravel and limestone stones together to create a strong smooth road.



#### **Road Grading**

The biggest problem we face with gravel roads is the unseasonable freeze and thaw cycle. When a gravel road thaws, turns to mud, gets rutted, and quickly freezes again it is hard to keep a smooth surface. Road graders can worsen road conditions rather than improve them during this cycle. The frost coming out of the ground is coupled with large amounts of precipitation (rain and/or snow). The muddy surface that this causes gets worse with excessive traffic or heavy vehicles. This is why SCRC's heavy grading equipment can make muddy roads even worse for travel. Placing more gravel on the road would hinder conditions by adding another layer to the muddy surface, making it even harder for the road to dry out. The district foreman continually monitors their gravel roads and "spot grades" where effective. Continuous warm temperatures and low precipitation is the best condition to help gravel roads dry out, which will then allow the graders to properly reshape the roads.

## TAILGATE GRAVEL



This process is part of maintaining gravel roads. The Saginaw County Road Commission places approximately 3 inches of new gravel on some of its primary gravel roads annually. Additionally, the townships can submit a list of local roads they would like to be re-graveled. The cost to add gravel to a mile of road in 2023 is about \$22,000.

## BRINE (DUST CONTROL)

## Services Performed Spring & Fall





Drive down a gravel road, and you're going to kick up some dust. But that amount of dust can be controlled. The Saginaw County Road Commission uses a brine solution to alleviate seasonal dust problems. This solution is applied to all gravel roads in any township that requests it. The process starts with the road being graded, to open the surface of the gravel and to remove bumps. Then a mineral well brine solution is applied at a rate of 2,000—3,000 gallons per mile, based on weather conditions.

## **CRACK SEALING**

#### Services Performed Spring through Fall



### Pavement Deterioration Prevention - Timely Maintenance Saves Money

The first line of defense against water intrusion is crack sealing. Proper crack sealing along with other maintenance techniques (i.e. installing control joints on new asphalt) can prevent costly water damage and greatly increase the life of your asphalt pavements.

#### **Crack Sealing Process**

- Cracks are mechanically routed. This provides a reservoir for the sealant to work properly.
- Compressed air and heat lances are used on the routed cracks. Sealant requires a clean and dry surface for proper adhesion.
- Cracks are sealed with a hot-pour polymer modified sealant that meets or exceeds State & Federal specifications.

#### What Causes Asphalt Pavement to Crack?

Four seasons a year is great for Midwesterners, but it's brutal on pavement. Add daily traffic use, water seeping in from rain, and the winter freeze-thaw cycles. This environment will prematurely crack and age asphalt. Leaving this deterioration untreated leads to costly repairs.

- Lack of Control Joints Most asphalt surfaces,
   unlike concrete, do not have control joints and thus cracks
   appear where the most stress is placed.
- Sunlight The second cause of pavement cracking is due to oxidation. Since asphalt pavement is approximately 94% aggregate and only 6% asphalt oil, it is very susceptible to the elements. Sun, rain, heat and cold trigger the asphalt to oxidize, causing it to harden and shrink.
- Water Penetration Happens through the cracks in the pavement and into the sub base. The base is then softened which leads to cracks working their way up to the surface, then to "alligatored" areas and eventually potholes.



## **CHIP SEAL**

## Services Performed June through August

A road surface will only last so long. The weight of vehicles and movement of the earth below causes cracks. Water infiltrates the cracks, freezes and thaws, and causes the pavement to deteriorate.

One of the most cost-effective ways to extend the life of a road surface is called chip sealing. As practiced by the Saginaw County Road Commission, the chip seal process can extend roadway life by five to seven years.

During the process, a layer of emulsion – a special formulation of asphalt and polymers – is spread on the road surface. Then a layer of stone "chips" are embedded in the emulsion. These stones are carefully graded to be the same size, and consist of a 50/50 blend of limestone and trap rock. The emulsion helps seal out water, while the stone surface is hard, protective and non-skid.







## **SWEEPING AND FOG SEAL**

## Services Performed June through August

Sweeping after a Chip Seal process has many benefits.

- Prevents the loss of vehicle tire traction for the for the traveling public.
- Prevents loose stone from being thrown by a moving vehicle or pushed into yards.
- Prevents debris accumulation in the curb and gutter area and catch basins.



Fog Seal is a final sealing process on a chip sealed road.

The distribution truck will spray a dark layer of emulsion over a chip sealed road to "lock" the chips or stone in place. This process also gives the road an aesthetic value of a dark black surface.







### **ASPHALT REPAIRS**

Eventually asphalt roads will require repair due to the harmful effects of weather and traffic. However, not all asphalt problems are the same, and knowing which repair method is best for the pavement is vital to effectively fix the issue.

Here are the top three most common types of asphalt repairs:

• Asphalt Overlay is new asphalt applied over the existing surface layer. The new layer(s) are generally 1.5 to 2 inches thick, with most overlays having 2 layers (or lifts) installed. When the existing surface is stable with minor drainage issues, cracks, and potholes, an overlay is going to provide an aesthetically even and attractive appearance while fixing underlying issues. In most cases the cost of an overlay will likely be about 60 percent – a little over half – of the cost of other asphalt repair methods.

• Mill and Fill is a structural pavement treatment that involves the removal or "shaving" of the existing surface layer with a milling machine. Typically, the mill shaves the existing asphalt down to the thickness that the overlaid surface will receive, this is around 1.5 to 3 inches, but in an area with curb and gutter, sidewalks, or concrete pads this amount can vary. Once the milled area is swept, a tack coat is applied and they begin placing the new asphalt. Most fills will have 2 layers (or lifts) installed.

• Crush and Shape is a structural pavement treatment that grinds, or crushes, the existing asphalt and 1-2" of underlying gravel. The material is then regraded, compacted, and covered with multiple layers of paverplaced hot asphalt.





### **HOT PATCHING**

#### **Services Starts Early Spring**



Hot Patching is a more permanent solution to pothole patching. This process is used on large potholes and sections of road that have "exploded" during the freeze-and-thaw cycle.

The area to be patched is cleared of loose debris and then patched with the emulsions & chips, similar to the chip seal operation, just on a smaller scale.

### **LINE STRIPING**

### Services Performed May through November



Over the last couple of years, one of the most common topics in question is line striping. More specific questions are: When will it be done? What roads will be done and how are they chosen? How do I get my road striped? Why this road and not that road?

Generally speaking, line striping is considered a maintenance function as roads are selected to be "Re-Striped" to enhance their visibility. In addition to maintenance, there is the striping of some of the roads resurfaced during the construction season, and of course the annual striping of the recently completed chip seal projects.

Traditionally, our line striping program has consisted of the majority of our primary road system. In addition, some local roads that have curves or hills within them, school areas, rail crossings, multiple lanes, and a handful with extremely high traffic counts are also striped.

### **SNOW PLOW PRIORITIES**

The Saginaw County Road Commission intends to provide the same level of service this year that we did in the previous winter season. It is our intent to address snow clearing in the most effective and efficient manner possible, in order to provide a safe traveling route for the residents of Saginaw County.

### All Roads Will Be Cleared Using The Following Priority:

- Emergency Routes These are mutually agreed upon routes for emergency vehicles use throughout the County.
- Primary Roads These can generally be identified by roads that have line striping.
- **3.** *High-Priority Local Roads* These are local roads where schools and fire stations are located.
- **4.** *High-Volume Local Roads* These are section line roads that through traffic count reports; need to be cleared as soon as possible.
- Local Roads These are section line roads throughout the County that may be surfaced with gravel, asphalt or concrete.
- **6.** Subdivision Roads These are generally the last road to be plowed, and can take up to two to three days after a snow event to get these roads plowed.



additional snow or wind events occur. With each additional snow or wind event, the priorities start over; potentially further delaying the snow removal process.

The Saginaw County Road Commission, as a general rule, will not work overtime on any local roads unless these roads become impassable; as determined by the Director of Maintenance or Maintenance Superintendent of the Road Commission.

In the event of a snow emergency, the Road Commission will work directly with Saginaw County Emergency Operations Center (EOC) to ensure that emergency routes are clear and that emergency vehicles can get to their destination in a safe efficient manner.

These priorities are based on the assumption that no

### **ESTABLISHING SPEED LIMITS**

Complaints regarding the speed of traffic and even petitions for lower speeds are very common. The Michigan Motor Vehicle Code requires that drivers should, at all times drive at "reasonable and proper" speeds, given the conditions. The law states: "Any person driving a vehicle on a highway shall drive at a careful and prudent speed not greater than nor less than what is reasonable and proper, having due regard to the traffic, surface and width of the highway and of any other conditions; and no person shall drive any vehicle upon a highway at a speed greater than will permit him to bring it to a stop within the assured clear distance ahead. "Prima facie" speed limits The Michigan Motor Vehicle Code sets speed limits for roads even where no speed limit is posted. These unposted speed limits are known as "prima facie" speed limits.

The prima facie speed limits identified in the law are:

- Residential and Business Streets: Where no speed limit is posted, the prima facie speed limit on paved or gravel residential streets and streets in business districts is 25 mph.
- Parks: Unless a different speed is posted, the prima facie speed limit in parks is also 25 mph.
- County Roads: On highways outside of residential or business districts, if no speed limit is posted, the prima facie speed limit is 55 mph.

When the prima facie limit is considered too high on a county road, the State Police, in conjunction with the road commission, conduct a speed study to determine the "reasonable and proper" speed for the road. Road agencies around the country have established standardized methods for conducting speed studies. These methods include engineering and traffic studies that examine such things as current traffic speed, traffic volume, accident rates, the character of the street (whether there are sidewalks, the number of driveways, sight obstructions, etc.), pedestrian activities and potential hazards that might not easily be detected by drivers. To get an enforceable speed limit set or changed on a county road, it is necessary that the state police conduct a speed study and that the state police, the Road Commission, and the township concur on the speed limit. Unless the state police concur with the proposed speed limit, it is not legally enforceable. You can also learn more about speed limits by reading Section 257.627 of the Michigan Vehicle Code.



### **PERMITS**

#### Right of Way Permits

Saginaw County Road Commission's primary and local roads all have a public right-of-way (ROW) that is typically 66 feet wide. The ROW includes the roadbed, shoulders, ditches, and adjacent land. The purpose of the ROW is to provide water drainage away from the road surface, and to provide a safety zone for vehicles that leave the roadway. Any time that a commercial business, utility or subcontractor, or a citizen wishes to work in the ROW, they must obtain a permit.

Types of Permits – New Construction (includes Address & Driveway), Address, Driveway, Ditch Enclosure, Storm Sewer Tap, Miscellaneous Right of Way (Landscaping, Parade, or Road Closure), Utility Permits, Accessibility Compliance (for Land Division), Monitoring Wells, Seismographic Permit

For more information visit our website:

www.scrc-mi.org/right-of-way/

#### **Transportation Permits**

Under the Michigan Vehicle Code, the Saginaw County
Road Commission is authorized to issue special transportation
permits for the movement of vehicles and/or loads over county
roads which exceed the size or weight limits specified by
law. It's the objective of the Road Commission to permit the
movement of necessary overweight and oversize vehicles
or loads consistent with the following obligations: Protection
of the motoring public from potential traffic hazards and
protection of road surfaces, structures, and private property.

Types of Permits – Single Move, Super Move, Annual,
Single Mobile Home, Annual Mobile Home, Seasonal, Special
Equipment

For more information visit our website: www.scrc-mi.org/oversize-overweight/

#### **Permit Application Process**

All permits are processed using a web-based permitting system called Oxcart Permits (<a href="www.oxcartpermits.com">www.oxcartpermits.com</a>).

Applicants will need to create an account. Once logged into your dashboard you will select "Right of Way" or "Oversize/Overweight" and then municipality "Saginaw Road Commission, County of" – click apply for permit. Complete all required fields and select the type of permit. Submit the application and we will review. You will receive an email once it has been approved. When you go to view the approved permit, the permit fee will be required and can be paid with a credit/debit card on Oxcart's secured website.

Processing Time – Permits will usually be processed and issued within 10 business days from the date received, provided that all required information is received at the time of application. Incomplete applications will be delayed or not processed until all required information is received. Additional processing time may be needed for complicated applications, heavy application volume, reduced staffing levels, or Road Commission priorities.

### LAND DIVISION

#### **Utility Permits**

The Saginaw County Road Commission is charged with the duty and responsibility of protecting the road right-of-ways under control. As you may know any and all public utilities have the right, through legislative action, to use the public right-of-ways for providing service to the residents of the state of Michigan: providing they abide by the rules and regulations of the Public Act 51 agency and their placement cannot be denied. We have determined longitudinal placement for all public utilities within the road-of-way which was established by th McNitt Act of 1928 as being 2 rods each side of the survey centerline of any and all roads in which jurisdiction was transfered from the local townships to the road commission by this Act. A "rod" is equal to 16 1/2 feet: thereby establishing the 33 foot right-of-way to which you are all aware. The offset distances from center line of road for each utility are illustrated in the following diagram taken from page 50 of our permit book.

The bury depth shown applies to utilities placed parallel with the roadway, the minimum bury depth for utilities crossing under roadways is 48". We require all utilities crossing roadway to be placed allowing the road commission to use its "fusing the bore method". This saves on maintenance costs to the road commission and local townships.

#### **Land Division**

The Land Division and Sub-Division Control Act was modified by the legislature of Michigan in 1997. In this modification, the local road agency was charged with the responsibility of preventing the creation of "land locked" parcels within their respective jurisdictions.

In May of 2000, the Board of Commissioners for the Saginaw County Road Commission established accessibility standards for all parcels being created along roadway under its jurisdiction. The current standard is as follows: Prior to any land division accessibility being approved, the entire parent parcel shall have all trees removed form the road right-of-way following the current tree policy. The newly created parcel shall have positive drainage for all portions of the parcel where it abuts the road right-of-way.

The road commission suggests that the property owner receives an accessibility compliance for land division permit issued by the Saginaw County Road Commission before submitting the land split to their township. All new residential parcels should have positive drainage in order to meet requirements of the Saginaw County Health Department for septic systems and sewage discharge.

### **SCRC WEBSITE**

We are continually updating our website. Find more information regarding our organization at <a href="https://www.scrc-mi.org">www.scrc-mi.org</a>

Service Requests. This allows you to send a Customer Service Request directly to us. If you have work that needs to be done or a concern you would like us to look into, this all can be done quick and efficiently through the SCRC website.

**The Road Work** section includes a "Townships" section where you can find the TOWNSHIP AUTHORIZATION FORM. this section also includes listings and maps of construction projects, chip seal locations and road closures.

**Plow Locator.** This is an AVL map that allows visitors to see when roads have been plowed.

**Resources.** Our daily Facebook posts are now located on the front page of our website. So now, those residents who do not have a Facebook account can still see our daily posts.





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