

ROAD DEPARTMENT

SPECIAL POINTS OF INTEREST:

- Levy Details Recap
- Equipment Updates
- Resurfacing Strategies
- Road Maintenance
- What is Next

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1 MILL + 1 YEAR = DONE
Canton Township Community Center

ONE-TIME COST
TO THE AVERAGE

HOMEOWNER = \$28.04

LEVY DETAILS

- 1 mill for 1 year ONLY
- Will be collected in 2019 for the 2018 tax year
- EXPIRES AFTER 1 YEAR

Canton Township

SPECIAL PUBLICATION

OCTOBER 2018

Roads Update - Levy Dollars @ Work

DESPERATE SITUATION

Due to the lack of a road levy, Canton Township's nearly 98 miles of roadway went nearly a decade without funding in place for a maintenance or resurfacing program. The condition of our roadways worsened with no resolution in sight. In addition, Road Department equipment was not being replaced and became frequently unreliable, costly to repair, and rapidly aging. Badly needed road/drainage repairs went incom-



plete due to funding constraints.

VOTER ACTION

Canton Township voters approved a 2.9 mill road levy, 5 years in duration, with levy revenue starting in 2016. It was estimated that the levy would produce \$664,091 annually, to be used only for road resurfacing, road repairs and road department equipment

LOAN KICK-START

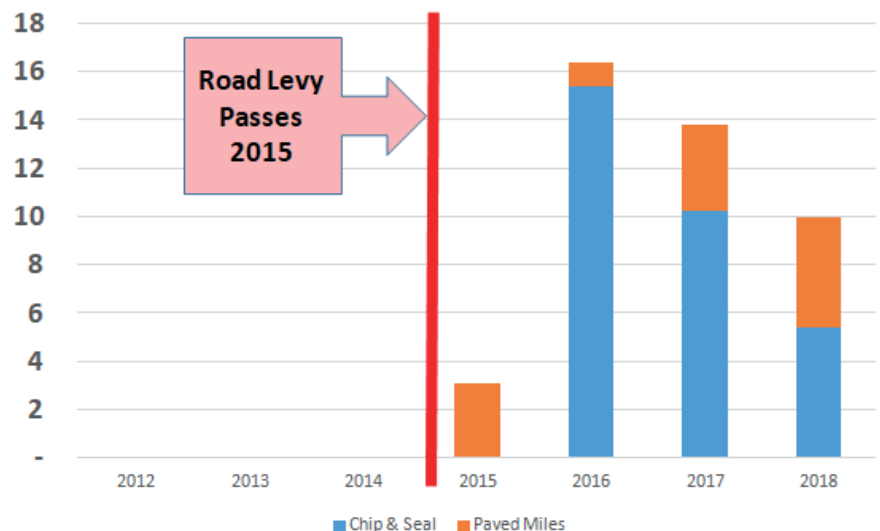
Even though the Road Levy passed in May of 2015, Canton Township would not begin to receive levy revenue until March of 2016, almost a full year later. The deterioration of Baum Road was so bad, it was determined a loan from the

Bank of Magnolia (2015-\$375,000 total) was necessary to begin paving efforts between Central Ave & Sandy before levy money was received. This loan is expected to be paid off in October 2018.

WHAT IF...

The reality is without voter support of a road levy, very little to no work would have been accomplished the past four years on our township roads. Vital equipment used to deliver services such as salting/plowing and drainage work, within our township, would have failed and likely not been replaced.

Miles of Township Road Resurfaced by Year



Cost compare chip seal and mill/pave as part of our 2018 program



STAFF

Despite an aging infrastructure and no shortage of work to do, Canton Township Road Department staffing has remained steady over recent years.

OUR ROADS CAN'T WAIT 14 YEARS...

If we spend every dollar of the Road Levy's expected \$664,091 annual revenue on only grinding and paving roads without using any other more cost effective resurfacing techniques, it would take almost 14 years, before we could resurface every township road just 1 time. That's at today's paving costs and also doesn't include any repair or replacement of our aging equipment or Salt Storage Shed.

The Cost is Surprising, More to Do

Canton Township would love to pave every road, but that is just not financially possible. As this newsletter relays, voters graciously supported a roads levy providing funds for equipment, road repairs, as well as a resurfacing and maintenance program that hadn't been in place for the large part of a decade. This means the township is in catch-up mode to try and stabilize heavily deteriorated roadways—some 98 miles worth.

Maximizing available levy funds and relying on professional guidance in determining what roads to mill/pave and what roads to chip seal occurs annually. Micro surfacing will be a welcome 2019 addition to the program.

There is no doubt taxpayer support is needed for future levy renewal requests to continue these efforts. Without that support, work to restore our roads would likely halt. We are working hard to continue earning your support each and every day. Thank you for your future consideration!

Chip Seal 2018

Road	Cost
Prairie College ST SW	\$19,987
Cloverhill ST SW	\$5,309
Paradise ST SW	\$4,856
37th ST SW	\$3,438
38th ST SW	\$7,400
39th ST SW (Sherman Church/ Deadend)	\$5,395
Hannibal SW	\$2,885
Allenford DR SE	\$15,246
Sycamore AVE SE	\$3,191
Mill RD SE	\$8,456
Village ST SE	\$18,671
TOTAL COST	\$94,834

Chip Seal 5.42 Miles

\$94,834

Paving 2018

Road	Cost
Springvale AVE SW	\$44,815
Davis ST SW	\$51,375
Faircrest ST SE	\$38,066
Faircrest ST SW	\$105,469
39th ST SW (Highview/Deadend)	\$45,240
Lillian ST SW	\$26,703
Springfiled AVE SW	\$16,253
23rd ST SW	\$39,400
Marietta AVE	\$49,560
10th ST NW	\$9,500
TOTAL COST	\$426,380

Paving 4.53 Miles

\$426,380

WOW, WHAT A DIFFERENCE...

By the end of 2018, by using MULTIPLE resurfacing techniques, including Chip & Seal, we will have resurfaced **43.23 miles** of township roads, with your Road Levy (plus RUMA) dollars. If we had only used traditional grinding and paving techniques, we would have only been able to resurface **18.81 miles total**. That is a difference of **24.42 additional miles** of your roads we have been able to keep from deteriorating further.

1 MILL + 1 YEAR = DONE

Canton Township Community Center



A 1 year/1 mill levy will be on the ballot this November.

The levy will fund the completion of the
Canton Township Community Center renovation project.

LEVY DETAILS

- 1 mill for 1 year ONLY
- Will be collected in 2019 for the 2018 tax year
- EXPIRES AFTER 1 YEAR

ONE-TIME cost
 TO THE AVERAGE
 HOMEOWNER = **\$28.04**

Asphalting vs. Chip Sealing



Chip Seal is very prevalent around Stark County

Many other respected entities utilize chip seal as part of their roads resurfacing program and have done so successfully for years.

- Stark County Engineer
- Ohio Department of Transportation (ODOT)
- City of Canton
- Pike Township
- Bethlehem Township
- Tuscarawas Township
- Osnauburg Township
- Nimishillen Township
- Lexington Township

As technology continues to change, so has the application method of chip seal. Chip sealing uses the same ingredients as asphalt paving but the construction method is different. Computerized equipment has been developed that makes placing materials uniformed and allows for adjustments in the process. With chip seal, a thin film of heated asphalt liquid is sprayed on the road surface followed by the placement of small aggregates ("chips"). The chips are then

compacted to orient the chips for maximum adhesion to the asphalt.

How are Chip Seals Different from Asphalt Overlays?

The difference is in the construction method. Hot Mix Asphalt pavement is produced by heating liquid asphalt and mixing it with aggregate, with the mix then spread and compacted to form a durable road structure and riding surface. *Chip Sealing* uses the same ingredients as asphalt

concrete paving, but the construction method is different. With chip seals, a thin film of heated asphalt liquid is sprayed on the road surface, followed by the placement of small aggregates ("chips"). The chips are then compacted to orient the chips for maximum adherence to the asphalt, and excess stone is swept from the surface. The ingredients of hot mix asphalt and chip seals are the same; only the construction methods are different.

\$16,000/Mile vs. \$93,000/Mile

The sheer number of miles of Canton Township roadway requires officials to consider options.

1. Chip seal is 1/4 to 1/5 of the cost of the conventional grind and pave asphalt. Chip seal is approximately \$16,000 per mile vs. asphalt at \$93,000 per mile. (price changes annually)
2. Chip seal provides an effective moisture barrier for the underlying pavement against water intrusion by sealing cracks in the pavement.
3. Chip seal eliminates the need to crack seal.
4. Chip seal helps eliminate black ice.
5. Chip seal enhances safety by providing skid resistance.
6. In hot weather, chip seal re-seals cracks by flowing back together.
7. ODOT has successfully used chip seal for over 25 years on state routes.

Water is the enemy of asphalt. To prevent water from penetrating and deteriorating the roadway, cracks must be filled. Sealing the cracks will prevent water from entering the base and sub-base and will EXTEND the life of the roadway. When water is prevented in this manner, pavement deterioration (potholes) are slowed. Chip seal has proven very effective in reducing potholes and has directly led to a reduction in the extra cost of annual pothole repair patch plus labor and fuel to do the work.



Micro Surfacing is a newer option

2019 Brings Micro Surfacing

Our township has obtained an agreement with a leader in resurfacing technology and application for a 2019 initiative. After securing 2018 pricing for a 2019 program execution timeline, for the first time ever, Canton Township will plan to apply micro surface technology to specially identi-

fied roads in the northwest area of our community. If the outcome is as successful as we believe it will be, this technology could be used otop structurally sound chip/seal roadway surfaces. Micro surfacing chip/seals and then adds a *smooth* top layer onto existing, generally already structur-

ally sound roadway to further seal and preserve. Of course, we rely on specialists who helped grade the condition of our roads to help us prioritize the consideration of all available resurfacing options. All township roads have been graded professionally and assigned a grade level.

Salt Shed Must be Replaced



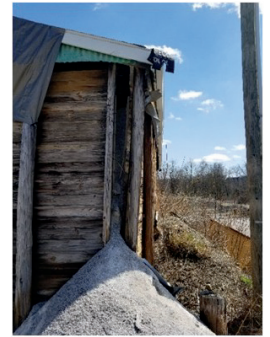
The 2017/ 2018 winter season was a challenge for our road crew. The main issue being timely delivery of road salt, low township salt storage

Deteriorating Salt Storage Shed

This provides enough salt for less than three inclement weather events. This is one of our challenges when deliveries are delayed. We are already being told 2018/19 will be equally or more challenging in terms of salt delivery and avail-

capacity, and the structural condition of the current salt storage shed. Our current salt shed, built in 1967, holds approximately 400 tons of road salt.

ability. As shown in the pictures, dirt has been placed around the building to keep it upright. The roof is beyond repair and covered with a tarp. Currently, the salt can no longer be contained due to the back wall pushing out. It has served us well, but is in dire need of replacement. The Township is looking at all options for funding this much needed project with an anticipated cost of \$150,000-\$200,000. A larger storage capacity will help the township guard against salt mine supply disruptions and mass snow.



Lifespan of Resurfacing Options

Every resurfacing option Canton Township invests in extends the lifespan of our roadway with the largest variance being the “smoothness” of the end product when you travel over it in your vehicle. Chip seal is often more rough, while micro surfacing and asphalt are more smooth. While you are likely familiar with asphalt, micro surfacing is a thin cold mix overlay applied on fair to good roads. It is less than a half inch thick and is made up of water, Portland cement, fine aggregate and other additives. It is utilized by townships, counties and ODOT giving a 6-8 year life extension to a road. It should be used as a preventative maintenance solution, and not on roads that are already too far gone. It is typically 1/3 the cost of a 2 inch mill and pave. Many of Canton Township’s recently chip sealed roads could qualify for micro surfacing in the future to smooth the roadway surface if this proves to be successful.

- Grind and asphaltting a road results in a lifespan of 7-10 years.
- Micro Surfacing extends the lifespan of a road by 6-8 years.
- Chip seal extends the lifespan of a road 5-7 years.

“Every resurfacing option Canton Township invests in extends the lifespan of our roadway.”

2018 Resurfacing & Maintenance Program

This year, for the first time, Canton Township invested in a maintenance program with a leading provider of paving technology. The contracted cost includes the use of equipment the township does not have access to and is at a rate the township could not match by doing this work in-house. The intent of this program is to begin annual maintenance on some of the first roads asphalted with the passage of the roads levy and to continue this effort each year thereafter.

The township also chip sealed 5.42 miles this year as well as milled and paved 4.53 miles. Faircrest Street SW was particularly challenging. Prior to paving, road department staff members uncovered catch basin deterioration that had to be corrected before paving could be completed. This section of the roadway was constructed in the late 1990’s, so this was an unfortunate and very costly surprise. The unexpected labor required to correct this situation stretched our small road crew thin.



Like us on Facebook at Canton Township Road Department

2,700 Tons
OR
\$148,149
worth of Road Salt
used during the
winter of 2017/2018
+ Overtime Labor
+ Fuel
+ Repairs



Snow & Ice Costs Money

More money spent on salt results in less money to resurface roads and take care of other road department needs. Last winter's salt cost **could have paved over 1.59 miles of road**. Besides the cost of the salt itself, add in labor, fuel, repairs, and overtime and mother nature takes a hefty toll, not to mention pothole repair costs. Salt prices continue to increase. Despite being part of a cooperative purchasing program with the Stark County Engineer's Office, road salt costs are going up again this year. Salt shortages due to production issues in salt mines are already anticipated.

Many Miles to Maintain

Canton Township maintains approximately 98 miles of roadway ranking us #5 in total miles of roads across the 17 townships in Stark County.

While Canton Township generally receives very positive feedback about salt and plowing efforts, when compared to neighboring entities, the overall condition of Canton Township's roads are sometimes referenced negatively to other area roadways.

Of the top 5 mileage townships, Canton Township was the last to obtain road levy dollars to put toward road department needs and was nearly a decade behind on the implementation of a true road resurfacing and maintenance program.

Township Mileage

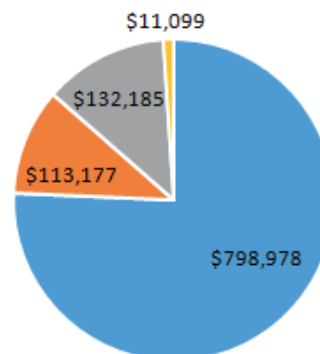
Township	2017 Population	Miles of Township Road - 2018	Road Mileage Rank - 2018
Jackson	40,409	203.493	1
Plain	35,011	172.756	2
Perry	28,267	144.820	3
Lake	30,027	139.468	4
Canton	13,005	97.580	5
Nimishillen	9,533	67.998	6
Lawrence	8,273	58.185	7
Osnaburg	5,605	55.680	8
Paris	5,675	52.543	9
Tuscarawas	5,869	51.850	10
Lexington	5,403	45.735	11
Sugar Creek	6,497	44.600	12
Washington	4,604	40.115	13
Marlboro	4,370	38.367	14
Pike	3,948	37.985	15
Bethlehem	5,300	34.035	16
Sandy	3,663	29.830	17
Notes	CantonRep 052418	SC Engineer 5/24/18 email	

2017 Breakdown

Canton Township is spending your road levy dollars as was promised. The largest portion going to road resurfacing and paying down debt on the loan to pave Baum, which is scheduled to be paid off in October 2018.

Canton Township has also closely managed RUMA-Road Usage Maintenance Agreements signed with pipeline and other companies using our roads. For example, in 2018, Canton Township will obtain \$60,000 to be put toward road resurfacing efforts above and beyond taxpayer levy revenue.

2017 Levy Dollars Spent



■ Resurfacing ■ Equipment ■ 2015 Resurfacing Loan ■ Tax Collection

* Resurfacing total includes resurfacing, large area patch repair, road repair plus RUMA dollars

When New is Needed - Choose Wisely

Two for the price of one!

As our older fleet of trucks continues to deteriorate, we were able to purchase two smaller F-550 cab chassis trucks for the price of one large truck. They both were purchased for less than state pricing. Both trucks were equipped with snow plowing and salting capabilities and were in service for the 2017/18 winter and beyond. The trucks have offered year-round versatility and reliability.

**Remember
this?**

**Plow
Trucks in
Disrepair**

Cannot Keep Them Plowing...

...If We Cannot Keep Them Running!

Plow truck being towed into mechanic's garage due to transmission problem while plowing.



Three plow trucks broke down during the January 26 snowstorm, one permanently.

Road Dept Replaces Aging Truck

The Township currently uses a 1991 snow plow truck. The Board of Trustees approved to replace it and purchase a 2017 Freightliner cab and chassis at below state pricing for \$74,673.00. The Board also agreed to use ARM Equipment to outfit the truck with dump bed, snow plow, salt spreader, lighting, and a wetting system in an amount not to exceed \$58,000.00. The last new large plow truck was purchased in 2004.

"The cost of a new dump truck is quite high, so the township continues taking steps to be more aggressive in its maintenance of existing fleet to prolong lifespan."

Maintaining to Delay Replacing

The Road Department equipment, especially dump trucks, are exposed to adverse materials regularly including road salt and hauling of materials plus snow plowing debris. The cost of a new dump truck is quite high, so the township continues taking steps to be more aggressive in its maintenance of existing fleet to prolong lifespan. In addition to routine floor mounted

steam/pressure washing of the undercarriage and a rigorous maintenance plan, the board authorized \$4,668 to be spent on refreshing the newest of our oldest dump trucks - a 2004 International. The paint and body work should keep the cab and chassis in good shape for several more years to come and will include a transition of the color scheme from yellow to white. The

board authorized the purchase of a used 2003 F350 pickup truck for \$6,000 as a replacement for a recently damaged 1997 pickup for use by the road department to haul mowing equipment and haul the road patch hot box trailer. An insurance settlement and proceeds from a salvage auction for the replaced vehicle should fully offset the purchase price.

Hot Box Helps & Roads NOW Requiring Less Patch!

With the new addition of the Asphalt "hot box" trailer in 2016, we have been able to address most pothole issues in a timely manner in the winter months. The "hot box" is a trailer unit used to maintain asphalt patch at a consistent temperature from the time it is picked up at the asphalt plant to the last shovel full used to fill potholes. This has proven to be a valuable piece of

equipment as it eliminates the waste of non-usable material that has gotten too cold. The box allows the road crew to travel across the entire township without loss of material and eliminates time that was wasted dumping off cold material to pick up new useable hot material at the asphalt plant. Plus, it is less physically demanding on road crews due to a lower height.

**More Resurfacing
= Less Patching**

2015= 718 tons

2016= 602 tons

2017= 536 tons

2018 = 381 as of
9/10/18



"Hot Box" trailer keeps patch warm and is more ergonomic for crews shoveling asphalt

Mailbox Placement

Here are some helpful guidelines to follow when installing your mailbox:

- Position your mailbox 41" to 45" from the road surface to the bottom of the mailbox or point of mail entry.
- Place your mailbox 6" to 8" back from the curb. If you do not have a raised curb, contact your local postmaster for guidance.
- Put your house or apartment number on the mailbox.
- If your mailbox is on a different street from your house or apartment, put your full street address on the box.
- If you are attaching the box to your house, make sure the postal carrier can reach it easily from your sidewalk, steps, or porch.

