

From Supervisor Hirsch 12/18/23

Feasibility Study for Maintenance Equipment

Mileage Records

21 Month history on vehicle miles:

3-28-22 thru 5-23-22 Total of 56 Days:

Sterling Plow Truck: Miles beginning 169,857, Miles Ending 169,891 Total: 4 Miles

Ford Plow Truck: Miles beginning 141,154, Miles ending 141,154 Total: 0 Miles

4-25-23 thru 5-28-23

Sterling Plow Truck: Miles beginning 169,891, Miles Ending 169,996 Total: 105 Miles

Ford Plow Truck: Miles beginning 141,154, Miles ending 141,154 Total: 0 Miles

The miles were over a span of three meeting months. Granted these times were slower times.

For a 14 month period from June 2022-July 2023

Sterling Plow Truck: June 2022 Miles beginning 169,996, July 2023 Miles Ending 179,255 Total: 9259 Miles

Ford Plow Truck: June 2022 Miles beginning 141,154, July 2023 Miles ending 146,306 Total: 5152 Miles

14 Month Total 14,411 Miles: First Year That we are hauling Gravel with the Trucks

Beginning of Year 2023 Township supervisors determined that the gravel around 2,500-5,000 +- yards would be hauled by employees, saving the township 25-46K in hauling thru Bjorklund. A net savings that will be put toward the purchase of replacement Trucks.

Cost of New Tandem Axle Truck

New Trucks On lot at Boyer St. Michael \$379K Bonnell -\$459K Towmaster with brine tanks

End of Life: In 2023 Used Trucks are selling with 200,000 miles for around \$15,000-\$45,000

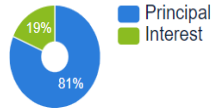
If the truck value with inflation in 20 Years were doubled, the resale value at 20 years would be \$30,000-\$90,000.

Current Interest Calculations below are based on 7% interest. The current interest rate prime is 8.5%. Which adds \$200-\$300 per month on payments due to the higher interest rate. This is not factored into my Calculations below.

Total Investments with Depreciation Calculations on NEW TRUCK: New Truck Cost of \$325,000 OR \$375,000

Calculation 1: \$325,000-\$90,000 = \$235,000 Replacement at 20 years @ 10,000 miles/yr.

Monthly Pay: \$3,836.03



Total of 72 monthly payments	\$276,193.90
Total interest	\$51,193.90

Loan for \$225,000 @ 7% Interest.

Downpayment of \$100,000.

Interest on Loan \$51,193.90

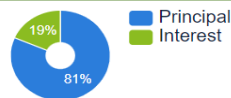
Total Investment with Interest: **\$376,193.90**

Total Depreciation Cost – Resale: **\$286,193.90** \$14,309.70/yr.

Best Scenario as the New truck purchase price was lowest @ \$325,000 and the used resale price was highest at \$90,000.

Calculation 2: \$375,000-\$90,000 = \$285,000 Replacement at 20 years @ 10,000 miles/yr.

Monthly Pay: \$4,688.48



Total of 72 monthly payments	\$337,570.33
Total interest	\$62,570.33

Loan of \$275,000 @ 7% Interest

Downpayment of \$100,000

Interest on Loan \$62,570.33

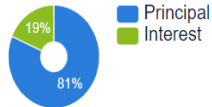
Total Investment with Interest: **\$437,570.33**

Total Depreciation Cost – Resale: **\$347,570.33** \$17,785.52/yr.

Second Worst-Case Scenario as the New truck price was Highest @ \$375,000 and the used resale price was highest at \$90,000.

Calculation 3: \$325,000-\$30,000= \$295,000 Replacement at 20 years @ 10,000 miles/yr.

Monthly Pay: \$3,836.03



Total of 72 monthly payments	\$276,193.90
Total interest	\$51,193.90

Loan of \$225,000 @ 7% Interest

Downpayment of \$100,000

Interest on Loan \$51,193.90

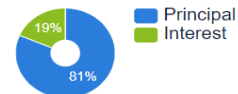
Total Investment with Interest: **\$376,193.90**

Total Depreciation Cost – Resale: **\$346,193.90** \$17,309.70/yr

Second Best Scenario as the New truck price was Lowest @ \$325,000 but the used resale price was lowest at \$30,000.

Calculation 4: \$375,000-\$30,000 = \$285,000 Replacement at 20 years @ 10,000 miles/yr.

Monthly Pay: \$4,688.48



Total of 72 monthly payments	\$337,570.33
Total interest	\$62,570.33

Loan of \$275,000 @ 7% Interest

Downpayment of \$100,000

Interest on Loan \$62,570.33

Total Investment with Interest: **\$437,570.33**

Total Depreciation Cost – Resale: **\$407,570.33** \$20,378.52/yr

Worst Case Scenario as the New truck price was Highest @ \$375,000 and the used resale price was Lowest at \$30,000.

Total Investments with Depreciation Calculations on USED TRUCK: Budget of \$120,000

Calculation 1: \$120,000 Replacement at 20 years @ 10,000 miles/yr.

NO LOAN @ 7% Interest.

Downpayment of \$120,000. Cash on Hand

Interest on Loan \$0

Total Investment with Interest: \$120,000

Total Depreciation Cost Less Resale: \$105,000 \$5,250/yr.

Worst Case Scenario as the Used truck purchase price was Highest @ \$120,000 and the used resale price was lowest at \$15,000.

Calculation 2: \$120,000 Replacement at 20 years @ 10,000 miles/yr.

NO LOAN @ 7% Interest.

Downpayment of \$120,000. Cash on Hand

Interest on Loan \$0

Total Investment with no Interest: \$120,000

Total Depreciation Cost less Resale: \$90,000 \$4,500/yr.

Best Case Scenario as the Used truck purchase price was Highest @ \$120,000 and the used resale price was highest at \$30,000.

Marysville Township Would Lose with Depreciation with a New Truck

\$20,378.52/yr Worst Case

\$14,309.70/yr Best Case

Marysville Township Would Lose with Depreciation with a Used Truck

\$5,250/yr. Worst Case

\$4,500/yr Best Case

Used Trucks with Brine tanks, 2011 International, used with 42,000-44,000 miles Michigan Municipal \$70,000 They had a Quantity of 3 on hand. Dec 10, 2023.

In Summary, Marysville Township would lose \$14,309.70-\$20,378.52 a year by purchasing 1 new truck over the next 20 years. \$286,194-\$407,570.40

If Marysville Township would purchase a used truck @ \$120,000 they would lose in depreciation \$4500-\$5250/yr. On the budgeted used truck allowance of \$120,000

The brand-new truck will not haul more gravel, it will not haul gravel faster, it will not plow more snow. Other than being excessively more expensive and the 20-year depreciation is substantially more by purchasing a new truck. Reliability is irrelevant as we have the ability during a catastrophic breakdown to Plow Snow with the Road grader, the 1 Ton with Plow as a last resort. Assuming a new truck will not break down and a used truck will breakdown is irrelevant. Catastrophic failure can happen on either used or new.

A new truck would also add a monthly loan payment of \$3800-\$4700 for the next 6 years. Furthermore, a second truck would need to be purchased as both trucks are aging out of service. At some point the Township would bear the burden of payments on two new trucks, \$7600-\$9400 a month. The Current Levy would carry the ability to replace both trucks with 2 Used trucks with a Budget of \$120,000 in the next 2-4 years without borrowing any money with interest. As the Township is currently in the Black and saving around \$100,000 per year. It will also allow the Township to operate without increasing the Levy amount.

If two trucks were purchased new, the Current Levy of \$525,000 would have to increase \$150,000-\$200,000 to purchase the 2 new trucks in the next 2-4 years. This large increase is needed as the new trucks would put a burden of Debt of \$750,000-\$875,000 to purchase two new trucks, because other equipment will also need to be replaced. The 1 Ton replacement would be \$100,000, along with the Payloader replacement of \$50,000-\$125,000. That increase would affect each tax payer \$100-\$1000 based upon taxable market value.

We must plan for the future while operating in the Black. Be Fiscally Responsible, and live within our means. Marysville Township would spend nearly a million dollars on new trucks. That again will not haul gravel faster, haul more gravel, or plow snow any better than a used truck.

Our better option, **if the Township Residents believe we actually need newer trucks**, is to spend \$240,000 on 2 used trucks, with money in reserve for the replacement of the Payloader and 1 Ton Truck. All of this is achievable in the next 2-5 years **without raising the Tax Levy and increasing Residents Taxes.**