

# MOUNT JOY TOWNSHIP ROAD IMPROVEMENT PLAN

## DRAFT 2019-2023 BUDGET

### Introduction

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This five-year road project budget establishes a guide for major reconstruction and surface management projects. It is a critical component of the Township Road Improvement Plan, which is currently under development. The full plan details policies that guide road-related decisions, considers maintenance beyond the five-year horizon, and contains a wealth of data pertaining to our transportation network. This budget and the plan are supported by our asset management initiatives that utilize an in-house Geographic Information System (GIS) and the CS Datum software.

The first three years of this period are heavily focused on the restoration of roadways that have an inadequate base. Full depth reclamation is a costly, but proper, way to approach these scenarios and end up with strong roads to serve the Township for decades to come. Significant portions of Milton Grove Road North, Cassell Road, North Plum Street, and Prospect Road have been reclaimed in recent years prior to being resurfaced. Beverly Road and Harvest Road will be addressed this way in the upcoming five-year cycle.

Township personnel will widen roads on an annual basis as a precursor to resurfacing projects, where applicable. Especially in our rural areas, roads narrower than 22' are often damaged by vehicles riding on the sides of the roads or off the cartway. This results in crumbled road edges and unsafe conditions for motorists. Even low-volume roads serving agricultural properties are not immune, as large vehicles use them daily. Most Township roads will be widened to at least 22' the year prior to resurfacing. This allows for any settling to occur before a leveling course is applied under the final wearing pavement.

The overarching goal of the Road Improvement Plan is to enable a predictable, cost-effective approach to providing safe and appropriate roads in Mount Joy Township. Preventative surface management is a key consideration of this short-term budget and the long-range plan. Traditional pavement overlaying and a variety of sealcoating techniques are being investigated and considered.

Traffic Impact Fees are funds contributed through construction projects to help offset capacity issues resulting from growth. The Hershey Road corridor and the Campus Road/Schwanger Road/Eagle Parkway intersection are primary targets in the coming years for these restricted funds. The Township's Act 209 studies, namely the Capital Improvements Plan, guide the use of this money, which is considered in the plan. The plan also addresses a wider range of transportation issues, such as bridge maintenance, sidewalks, and pathways.

# 2019-2023 Budget

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The two attached spreadsheets list the Township’s major road projects planned in the next five years. Cost estimates are broken out by year and factor in a 5% annual escalator beyond the 2018 costs attributed to the various tasks comprising the project. The spreadsheets include sealcoating, an allotment for general maintenance, a 10% contingency, and a 5% budget estimate for engineering and other services relating to road projects.

Sealcoating is only programmed for the first two years, but the full scope will be revisited during final preparation of the Road Improvement Plan. Also note that there is capacity in year five for additional projects to be determined through the prioritization process in the plan. The table below summarizes the anticipated project and sealcoating expenditures for budgeting purposes.

### Five-Year Budget Summary (adjusted 5% annually)

	Projects	Sealcoating	TOTAL
2019	\$986,396	\$58,436	\$1,044,832
2020	\$1,209,381	\$114,224	\$1,323,605
2021	\$991,769	\$5,478	\$997,247
2022	\$748,284		\$748,284
2023	\$253,278		\$253,278

### Project Breakdown (costs in 2018 \$)

#### Prospect Rd (Mt. Gretna Rd – Elizabethtown Rd)

Year	Tasks	Cost (2018 \$)
2018	Reclaim & widen to 22’ cartway (partially in-house)	\$282,696
2019	9.5mm overlay w/ leveling course & fabric, 22’ cartway	\$191,919
	<b>Total Estimated Cost:</b>	<b>\$474,615</b>

#### Trail Rd S

Year	Tasks	Cost (2018 \$)
2018	Install drainage system & widen to 22’ cartway (in-house)	\$150,000
2019	9.5mm overlay w/ leveling course & fabric, 22’ cartway	\$86,976
	<b>Total Estimated Cost:</b>	<b>\$236,976</b>

#### Beverly Rd (Hershey Rd – Koser Rd)

Year	Tasks	Cost (2018 \$)
2018	Install drainage system (in-house)	\$30,000
2019	Reclaim & widen to 24’ cartway; 19mm base paving	\$202,146
2020	9.5mm overlay w/ leveling course & fabric, 24’ cartway	\$90,462
	<b>Total Estimated Cost:</b>	<b>\$322,608</b>

### Bear Creek Rd

Year	Tasks	Cost (2018 \$)
2019	Widen to 28' cartway (in-house); reconfigure Spring Rd intersection	\$359,446
2020	9.5mm overlay w/ leveling course & fabric, 28' cartway	\$88,700
	<b>Total Estimated Cost:</b>	<b>\$448,146</b>

### Spring Rd

Year	Tasks	Cost (2018 \$)
2019	Widen to 22' cartway (in-house)	\$21,208
2020	9.5mm overlay w/ leveling course & fabric, 22' cartway	\$39,080
	<b>Total Estimated Cost:</b>	<b>\$60,288</b>

### Harvest Rd

Year	Tasks	Cost (2018 \$)
2019	Improve drainage system (in-house)	\$25,000
2020	Reclaim & widen to 22' cartway; 19mm base paving	\$576,692
2021	9.5mm overlay w/ leveling course & fabric, 22' cartway	\$243,599
	<b>Total Estimated Cost:</b>	<b>\$845,291</b>

### Country Squire Rd

Year	Tasks	Cost (2018 \$)
2019	Widen to 22' cartway (in-house)	\$52,730
2020	9.5mm overlay w/ leveling course & fabric, 22' cartway (in-house)	\$87,208
	<b>Total Estimated Cost:</b>	<b>\$139,938</b>

### Trail Rd N

Year	Tasks	Cost (2018 \$)
2020	Widen to 22' cart., tree removal, drainage [Forest Ln – Harvest Rd] (in-house)	\$85,780
2021	Widen to 22' cart., tree removal, drainage [Milton Grove – Forest] (in-house)	\$89,660
2022	9.5mm overlay w/ leveling course & fabric, 22' cartway	\$207,114
	<b>Total Estimated Cost:</b>	<b>\$382,554</b>

### Hereford Rd

Year	Tasks	Cost (2018 \$)
2020	Improve drainage system (in-house)	\$15,000
2021	Widen to 22' cartway (in-house)	\$78,192
2022	9.5mm overlay w/ leveling course & fabric, 22' cartway	\$174,255
	<b>Total Estimated Cost:</b>	<b>\$267,446</b>

### Quarry Rd

Year	Tasks	Cost (2018 \$)
2020	Widen to 22' cartway (in-house)	\$54,701
2021	9.5mm overlay w/ leveling course & fabric, 22' cartway (in-house)	\$95,058
	<b>Total Estimated Cost:</b>	<b>\$149,759</b>

**Stauffer Rd**

Year	Tasks	Cost (2018 \$)
2020	9.5mm overlay w/ leveling course & fabric (in-house)	\$59,321
	<b>Total Estimated Cost:</b>	<b>\$59,321</b>

**Buckingham Blvd (Mt Gretna Rd, ~435' southward)**

Year	Tasks	Cost (2018 \$)
2021	Widen, improve drainage, tie into Mt. Gretna Rd intersection, 9.5mm overlay	\$75,000
	<b>Total Estimated Cost:</b>	<b>\$75,000</b>

Notes: Coordinate with Elizabethtown Borough, specific project scope TBD

**Cold Spring Rd**

Year	Tasks	Cost (2018 \$)
2021	Reclaim & widen to 22' cart.; 19mm base paving [west] / widen to 22' [east]	\$232,349
2022	9.5mm overlay w/ leveling course & fabric, 22' cartway	\$134,586
	<b>Total Estimated Cost:</b>	<b>\$366,935</b>

Notes: Harvest Rd – Sunnyburn Rd segment [west] / Sunnyburn Rd – Twp. line [east]

**Creek Rd (Colebrook Rd – Cold Spring Rd)**

Year	Tasks	Cost (2018 \$)
2021	Widen to 22' cartway (in-house)	\$42,870
2022	9.5mm overlay w/ leveling course & fabric, 22' cartway	\$79,007
	<b>Total Estimated Cost:</b>	<b>\$121,877</b>

**Schwanger Rd (Sheaffer Rd – Campus Rd)**

Year	Tasks	Cost (2018 \$)
2022	Widen to 22' cartway (in-house)	\$20,653
2023	9.5mm overlay w/ leveling course & fabric, 22' cartway (in-house)	\$41,599
	<b>Total Estimated Cost:</b>	<b>\$62,252</b>

Notes: Re-evaluate if Campus Rd/Schwanger Rd intersection project scope necessitates coordination

**Aberdeen Rd**

Year	Tasks	Cost (2018 \$)
2023	Widen to 22' cartway (in-house)	\$50,409
2024	9.5mm overlay w/ leveling course & fabric, 22' cartway (in-house)	\$110,987
	<b>Total Estimated Cost:</b>	<b>\$161,396</b>

**Beverly Rd (Old Hershey Rd – Hershey Rd)**

Year	Tasks	Cost (2018 \$)
2023	Widen to 22' cartway (in-house)	\$25,434
2024	9.5mm overlay w/ leveling course & fabric, 22' cartway (in-house)	\$56,000
	<b>Total Estimated Cost:</b>	<b>\$81,434</b>

**Old Hershey Rd (Rockwood Dr – Twp. line)**

Year	Tasks	Cost (2018 \$)
2023	Improve drainage & widen to 22' cartway (in-house)	\$81,007
2024	9.5mm overlay w/ leveling course & fabric, 22' cartway (in-house)	\$115,900
	<b>Total Estimated Cost:</b>	<b>\$196,908</b>