Road Funding 201:
Local Roads in Washtenaw County

Spring 2021

Questions? Contact Us!

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Introduction

Each year, the Washtenaw County Board of County Road Commissioners (the WCRC Board) and township boards partner to provide local road improvements to the residents of Washtenaw County. While road funding is limited, these parties work hard to spend this precious limited funding efficiently and effectively. The following packet was assembled for both seasoned officials who are very familiar with the process and for officials new to their positions to help them better under the intricacies of local road funding.

Sylvan Township Summary

The following is a summary of the roads, bridges and culverts located in Sylvan Township and the 2021 allocation made by the WCRC Board for local roads in Sylvan Township.

Primary Roads

- 17.57 miles of paved primary roads
- 0.44 miles unpaved primary roads
- 1 bridge (more than 20' span)
- 7 culverts, greater than 5' in diameter

Local Roads

- 15 miles of local paved roads
- 26.5 miles of local unpaved roads
- 3 bridges (more than 20' span)
- 6 culverts on local collector roads, greater than 5' in diameter

2021 Local Road Matching Program Allocation

Notification of the intent to use matching funds is due to WCRC by **Friday, May 21, 2021.**

Township	Conventional Local Road Match	Drainage Local Road Match	Total Matching Funds Available
Sylvan	$29,236	$11,096	$40,332

Local Road Needs

Township	Paved Local Road Needs	Unpaved Local Road Needs	Total Needs	Average 10-year Annual Expenditure Needed
Sylvan	$3,110,287	$2,091,800	$5,202,087	$520,209

Historic Township Road Contributions 2017 – 2020

Township	2017	2018	2019	2020	4 -Year Annual Average
Sylvan	$81,838	$72,370	$26,115	$114,611	$73,734

Contact Information

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Funding for Local Roads

Overview

Roads in Michigan have been chronically underfunded for decades. There are numerous reasons behind this fact but no matter the cause, Michiganders see the results – many, many miles of poor roads.

This is especially true for local roads, which connect people from the primary road system to their homes and businesses. Local roads can be further divided into local collector roads and subdivision roads. Local collector roads are those that that connect residential and business areas to the primary road system. Local subdivision roads mostly service residents or businesses within subdivisions and business parks.

Washtenaw County has more than 1,060 centerline miles of local roads. See Appendix A for a chart breaking down mileage by township.

Primary and local designations are determined by MDOT. These designations are critical since they play an important role in how much WCRC receives from the Michigan Transportation Fund (MTF)[1]. In 2020, WCRC received $2,483 for each mile of rural primary road and $2,726 for each mile of rural local road. In the urban areas, the amount increases to reflect additional traffic and lanes. The urban primary roads receive $16,684 per mile and urban local roads receive $5,093 per mile.

In addition to this part of the formula, WCRC receives funds from vehicle registration fees collected through the Secretary of State. Vehicle registration fees are distributed to county road agencies based the number of vehicles registered in each county.

[1] Michigan Transportation Fund (MTF) is WCRC's primary source of funding. It is made up of revenue from state fuel tax and vehicle registration fees which are allocated through a formula to MDOT, county road commissions and cities/villages. WCRC is expecting to receive $32,000,000 from MTF in 2021.

Local Road Matching Program

Unfortunately, the MTF allocated for local roads barely covers WCRC's costs for routine maintenance such as snow plowing, pothole patching and grading. In addition, under current state law, any improvements to a local road (for example resurfacing) must have at least 50% of its funding come from a source other than the road commission, often the township.

Knowing that local road funding is challenging, the WCRC Board has historically transferred funds from the Primary Road Fund to the Local Road Fund, even though this transfer limits maintenance activity on the primary road system. These monies are used to fund WCRC's Local Road Matching Program.

WCRC's Local Road Matching Program is made up of three matching programs.

1. Conventional Local Road Match
2. Drainage Local Road Match
3. Local Road Culverts and Bridges

The full conditions of the Local Road Matching Program can be found in Appendix B.

Conventional Local Road Match

For 2021, the WCRC Board has assigned $1,100,000 to the Conventional Local Road Match Program. This is the same amount as in 2020. This is a countywide allocation for local roads in all twenty townships based on the distribution formula used by MDOT to distribute local road funds to the 83 counties of Michigan.

As part of this formula, urban local road miles receive additional funds which is reflected in the amounts available to the eligible townships. Ann Arbor, Augusta, Dexter, Lima, Lodi, Northfield, Pittsfield, Salem, Saline, Scio, Superior, Sylvan, Webster, York and Ypsilanti Townships are within the urban area and their matching fund allocations show these additional amounts.

Drainage Local Road Match

The WCRC Board has assigned $200,000 to the 2021 Drainage Local Road Match. Funding distribution for this program is based on the total uncurbed, non-subdivision local road centerline mileage for each township.

These funds can only be spent on local uncurbed, non-subdivision roads. Eligible work activities include roadside berm removal, ditch establishment & restoration, small culvert installation, rehabilitation or replacement.

Regulated Local Road Culvert and Bridges

In addition, the WCRC Board has committed to covering 50% of the cost to replace local road culverts and bridges that require permits from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) and/or the Washtenaw County Water Resources Commissioner's Office.

These types of structures are usually larger and more expensive to fix or replace. This funding source is in addition to the Conventional Local Road Match Program and Drainage Local Match Program and is applied on a case-by-case basis in partnership with interested townships.

See Appendix C for a listing of each township's matching fund allocation. See Appendix D for a listing of each township's contribution from 2007 – 2020.

Planning Your Investments

Roads and the roadway, like any other public infrastructure, require a lot of investment. Unfortunately, in Michigan the needs far outweigh the funds available in any given year. So, how do WCRC and townships in Washtenaw County decide the best way to invest limited funds?

WCRC utilizes the principals of asset management when planning investments. According to Michigan's Transportation Asset Management Council, asset management is the, "Ongoing process of maintaining, preserving, upgrading and operating physical assets cost-effectively, based on a continuous physical inventory and condition assessment and investment to achieve established performance goals."

While this may be a daunting definition, the overall concept is simple and similar to vehicle maintenance – you want to make the right fix at the right time in the right place. Most of us change the oil, rotate tires, replace batteries and make other small repairs to keep our vehicles in good shape. We know if we do nothing that we will be replacing that vehicle sooner than if we keep up good maintenance practices. We also know that it makes little sense to make minor repairs to a vehicle that no longer runs. Staying on top of low-cost maintenance items is more cost-effective in the long run.

Inventory and Condition Assessment

For asset management to be effective, an agency must first understand what assets are under its jurisdiction and the current conditions of these assets. This is done through an inventory or physical inspection of each asset. The inventory and condition assessment process is different for paved road and unpaved roads.

Paved Roads

For paved roads, WCRC uses the Pavement Surface Evaluation and Rating (PASER) system. The PASER system rates paved roadways on a scale of 1 to 10. Roads are then designated into three groups: Good (10-8 rating), Fair (7-5 rating) and Poor (4-1 rating). All paved roads in Washtenaw County are evaluated every two years.

The latest PASER for the roads in Sylvan Township are shown in the following map.

Sylvan Township

Primary & Local Paved Roads

PASER RATINGS

PASER stands for Pavement Surface Evaluation and Rating. The PASER rating ranges from 1- failed conditions, to 10 - brand new pavement. A pavement will only be a 10 the first year of its life, the second year it will automatically become a 9. Any condition of 8 or greater is considered to be a good condition; 7, 6 or 5 are fair; 4 or lower is poor.

- PASER based on current ratings and project improvements
- Private and Gravel roads not rated.

THE RIGHT FIX AT THE RIGHT TIME

The WCRC determines the best fix to optimize service life for each of our projects. Good pavement management involves less expensive treatments earlier in the life of the pavement in order to take full advantage of infrastructural investments.

Road Classification

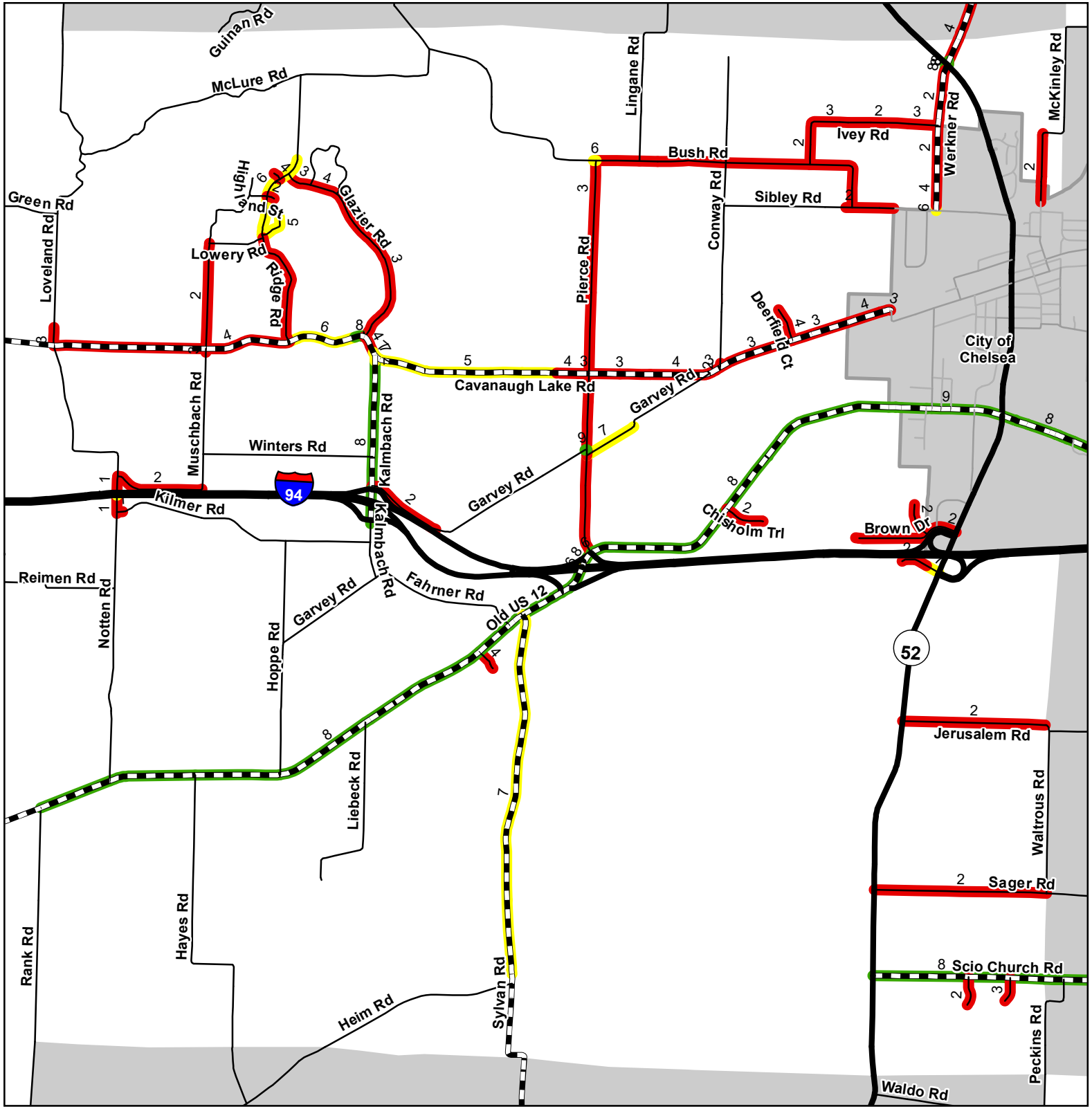
- State Trunkline
- County Primary
- County Local
- City
- City/Village Boundary

Road Ratings

- Good (10, 9, 8)
- Fair (7, 6, 5)
- Poor (4, 3, 2, 1)

0 0.5 1 Miles

N



Unpaved Roads

Michigan has thousands of miles of unpaved roads, including more than 1,000 miles in Washtenaw County. There is not an official condition rating scale for unpaved road since surface conditions depend so much on the weather. In Washtenaw County, unpaved roads are surfaced with limestone or gravel.

While subjective, each district foreman is highly familiar with the roads in his area and can provide an informal condition rating for each of them based upon the type of material present, drainage facilities and last date of improvements.

Bridges and Culverts

Bridges are structures that span 20’ or more. There are 126 bridges on Washtenaw County roads. By law, WCRC inspects bridges at least every two years. Bridges are rated Good, Fair or Poor.

Culverts are structures less than 20’ span and vary in description, from a corrugated metal pipe (CMP) to an old-fashioned short-span bridge. There are not any state requirements to inspect culverts but in 2014 WCRC implemented an inspection program for culverts.

These inspections help WCRC staff and townships identify the problems and plan for replacement costs, minimizing surprises. Inspections have also resulted in weight restrictions or culvert closures on primary and local roads for the safety of the traveling public.

WCRC bears all the cost to replace failed structures on primary roads but must partner with the respective township on local roads. To help, the WCRC Board committed to covering 50% of the cost to replace certain culverts on local roads (see page 5 for more information).

See Appendix E for a map showing the latest culvert condition ratings on local collector roads across the county.

Mix of Fixes

Paved Roads

PASER can and should be used to make investment decisions on the paved road system. Before any decisions can be made, it is important to understand the various treatments available for paved road maintenance depending on the road condition. The trick is applying the right fix at the right time on the right road. See Appendix F for a flyer summarizing these road treatments.

Pavement Condition (PASER)	Possible Treatment	Estimated Cost per Mile for Two-Lane Road	Estimated Life Expectancy	Who can conduct the work?
Good (10-8 rating)	Crack sealing	$10,000	Can last up to 3 years	WCRC crews
	Seal coat (chip seal, fog seal)	$36,500	Can extend the life of a road by 3-5 years	WCRC crews
Fair (7-5 rating)	Seal coat (chip seal, fog seal)	$36,500	Can extend the life of a road by 3-5 years	WCRC crews
	Mill and resurface	$180,000	Can extend the life of a road for 5-7+ years (with proper maintenance)	Contractor with WCRC inspection
Poor (4-1 rating)	Pulverize and resurface	$350,000	Can extend the life of a road for 10-15+ years (with proper maintenance)	Contractor with WCRC inspection
	Reconstruct	$1,000,000+	Can last up to 15 to 20 years (with proper maintenance)	Contractor with WCRC inspection

On the primary road system, WCRC's strategy is to focus most of the investment on keeping roads already in good condition good and bringing roads up from fair to good. In addition, WCRC strives to fix a few miles of poor roads each year, depending on funding.

> *Example:* Primary Road X was rated a 5 in the last round of PASER. This year, WCRC elects to mill and resurface it for $180,000 per mile bringing it up to a 10 rating. Next year, WCRC plans to apply a seal coat to it (both chip seal and fog seal) for $36,500 per mile. WCRC will need to seal coat it again in approximately 5 years to keep it in good condition.

On the local road system, the strategy depends on the funding partner, usually the township. WCRC staff are happy to work with each township to develop the best strategy for the local paved road system and the township's budget.

Unpaved Roads

Similar to paved roads, there is a range of treatment options for unpaved roads and it is important to apply the right fix at the right time.

As a part of WCRC's routine maintenance, every unpaved road in Washtenaw County will be graded a couple times per year and WCRC crews will do limestone/gravel patching as needed.

Just like paved roads, unpaved roads require more than just routine maintenance including ongoing drainage improvements to keep water from standing on the roadway which leads to deterioration of the road. Unpaved roads also require resurfacing which will be gravel or limestone depending upon the type of road.

Any work beyond routine maintenance on local roads comes at the direction and is funded by the township. Funds from the Local Road Matching Program described on page 5 can be used for any of the following treatments.

Possible Treatment	Estimated Cost	Recommended Frequency	Who can conduct the work?
Dust Control (includes a road grading prior to application)	$.189 per gallon, 1,000 gallons per lane mile	2-3 times per season (May – October)	WCRC crews
Drainage improvements (ditching, berming, tree trimming)	Varies significantly by project		WCRC crews
Resurfacing (with either limestone or gravel)	Typically, $65-$85k per mile	Should be done every 8 – 10 years	WCRC crews
Paving an unpaved road[2]	$1.5 million+ per mile		Contractor with WCRC inspection

Bridges and Culverts

There are fewer options available on bridges and culverts to help extend the life of the structure. WCRC will often invest money to rehabilitate or preserve a bridge deck or substructure. Some culverts can be lined to help extend their life. Most often, investments in culverts, especially those on local roads, are for a full replacement after the condition has deteriorated significantly.

[2] It should be noted, especially when considering whether to pave local unpaved roads, many residents have expressed strong feelings against paving the road they live on, while other residents and drivers expect the road to be paved.

Project Selection

As shown in the charts above, there are more options for investing in the local road system than the funding available. To help prioritize where to invest each year, WCRC staff work with township officials to create an annual proposed local road improvement program with project estimates. These discussions typically start in late-fall and carry on throughout the winter. Final project agreements are created in mid to late spring. The full conditions of the Local Road Matching Program can be found in Appendix B.

See Appendix G for a summary of needs on local paved and unpaved roads, by township.

Funding Options for Townships

Townships are not legally required to contribute to the maintenance, construction or reconstruction of county roads. However, Act 51 does restrict how much state funding a road commission can spend on local county road construction. In addition, road commissions do not have taxing authority, so their funding sources are limited.

WCRC is limited to no more than 50% of the local road project's total cost. The other 50% of a project's cost must come from a "local source" – which usually takes the form of a township contribution. In addition, WCRC has a limited budget just like most organizations so the amount WCRC contributes to local road projects is capped at the amounts set forth in the Local Road Matching Program.

Washtenaw County is not alone in its challenges securing much needed local road funding. Looking beyond county lines, we see townships throughout Michigan turning to other taxing mechanisms to generate the revenue necessary to repair and maintain local roads.

Whereas WCRC does not have any legal taxing authority, townships have three options to help raise revenue to fund road improvements: a millage through Act 51, a township-wide millage or a special assessment district.

Act 51 Millage

Act 51 of 1951 outlines two options for townships to raise revenue for the maintenance and improvement of local roads.

1. Township boards can levy a property tax of no more than three mills in any year, without a vote of the people, for the maintenance or improvement of county roads within the township.
2. With voter approval, township boards may levy a property tax of no more than 6 mills in any year for the maintenance or improvement of county roads within the township.

Township-Wide Millage

Section 6 of Article IX of the Constitution of Michigan of 1963 authorizes townships to levy millages with a majority vote of the people.

In 2016, Ypsilanti Charter Township used this option to place Proposition C on the ballot to fund recreation, bike paths, sidewalks, roads, parks and general operating purposes. The measure passed with 58% of the vote.

See Appendix H for taxable values with various milage scenarios, by township.

Special Assessment Districts (Township-wide or Neighborhood-to-Neighborhood)

Public Act 188 of 1954 allows townships to pay for road improvements through a special assessment district (SAD). A SAD is an area where the majority of property owners agree to allow a government agency to levy a property tax in exchange for a specific service such as road improvements. The area can be limited to a neighborhood or can be township wide. Act 188 outlines the process for levying a SAD.

In 2013, Scio Township's Board approved a township-wide SAD which raises approximately $500,000 annually for ten years and funds improvements on local roads in the township. Several other townships in Michigan have taken this approach for township-wide improvements.

In Washtenaw County, Dexter, York, Lodi and Scio Townships have also approved neighborhood SAD projects, which are generally initiated by neighbors in a specific subdivision requesting road improvements within their neighborhood.

See Appendix I for a summary of revenue that could be generated through various rates of a township-wide SAD, by township.

Appendix A: Public Road Miles Chart, By Township

Townships	Primary Paved	Primary Unpaved	Primary Bridges	Primary Culverts	Local Paved	Local Unpaved	Local Bridges	Local Culverts
Ann Arbor	22.56	0.00	2	8	5.68	14.08	3	7
Augusta	28.98	2.49	2	19	9.24	48.33	13	22
Bridgewater	12.24	9.16	1	6	0.00	40.23	3	6
Dexter	25.85	3.75	0	2	13.14	25.99	3	2
Freedom	11.92	4.47	0	2	1.68	46.27	0	5
Lima	19.44	5.75	3	6	5.45	40.45	13	7
Lodi	18.85	2.53	0	8	13.36	42.35	5	18
Lyndon	14.42	3.62	0	0	0.58	37.35	1	1
Manchester	10.80	8.81	1	1	1.20	46.41	1	8
Northfield	25.81	4.64	2	8	11.35	47.36	2	8
Pittsfield	42.80	0.00	0	11	81.82	14.73	0	8
Salem	34.25	0.94	0	11	7.5	33.6	1	17
Saline	12.21	11.65	1	9	1.97	27.96	3	11
Scio	48.98	0.00	12	9	28.30	30.96	8	10
Sharon	10.18	11.00	2	1	0.25	34.69	3	2
Superior	32.90	0.00	5	14	32.33	29.13	2	12
Sylvan	17.57	0.44	1	7	15.00	26.5	3	6
Webster	22.81	4.70	2	4	1.27	41.82	1	11
York	41.96	3.89	6	20	28.44	27.17	4	15
Ypsilanti	60.21	0.00	8	8	135.36	9.93	2	9
Totals	**514.74**	**77.84**	**48**	**154**	**393.87**	**665.31**	**71**	**185**

Appendix B: Local Road Matching Program Conditions

Township Assistance
In order to allow local road improvements to proceed in a timely manner, townships are asked to assist WCRC staff in acquiring necessary tree removal and grading permits, holding public meetings and coordinating any necessary property owner contacts.

Project Overruns
WCRC staff will provide an estimated cost for each individual project to be included within the agreement between the township and WCRC. If, prior to beginning an individual project, it is determined that the original cost estimate will not cover project costs, WCRC will notify the township to determine if the township desires to proceed with the project with a reduced scope of work or an additional funding commitment.

Budgets are closely monitored on each project and every effort is made to avoid overruns. Any unexpected project cost overrun shall be taken from any unexpended funds remaining in that township's total township agreement. If the overrun exceeds the total township agreement, WCRC may bill the township up to an additional 10% of the total agreement amount with the township. At the township's option, such overruns can be taken from the following years' matching funds.

Billing Procedures
The following billing methods apply only to those projects considered to be construction and heavy maintenance. Dust control will be billed at cost-to-date at time of billing. Standard fringe and overhead rates will be applied as defined by PA 51 of 1951, as amended.

- First Billing: The first 40% of the total Matching Program for construction and heavy maintenance projects will be due in June or 30 days from receipt of the first invoice.
- Second Billing: The second 40% will be due in August or 30 days from receipt of the second invoice.
- Final Billing: A final billing will be due in December or 30 days from receipt of final invoice.

Any credits due townships will be returned at the time of final billing or credited to the following year, as determined by the township.

Primary Road Matching
Any township board may, at its option, request that a part or all of its allocated matching WCRC funds, along with an equal amount of township funds, be used on a primary road project within the township boundaries.

Reallocation of Funds
Any township that has not notified WCRC of its intent to use matching funds on or before Friday, May 21, 2021 will forfeit the allocated matching money. WCRC will determine the amount of unused matching funds and reallocate these funds to primary road maintenance.

Dust Control
Conventional matching funds can be used for dust control only for solid applications (spot or skip spraying is ineligible). Application rates and frequency will be subject to limits established by EGLE rules (Reference: State of Michigan EGLE Groundwater Discharge Permit, General Permit No. GW1550000, Rule 2215, effective April 1, 2020, expiration April 1, 2023)

Local Matching Fund Carryover
If a township determines that it desires to carry over the funds allocated for a given year into the following year, the township must provide written notification to WCRC that it is requesting this carryover, and identify an eligible project for which the funds will be held.

The carryover fund will be preserved by WCRC for one year. Beyond this point, the funds will be reallocated to primary road maintenance. The carryover option allows the township to accumulate the funds that are allocated with the previous year allocation; in other words, the carryover funds cannot exceed the previous year's allocation.

Appendix C: 2021 Local Road Matching Funds, By Township

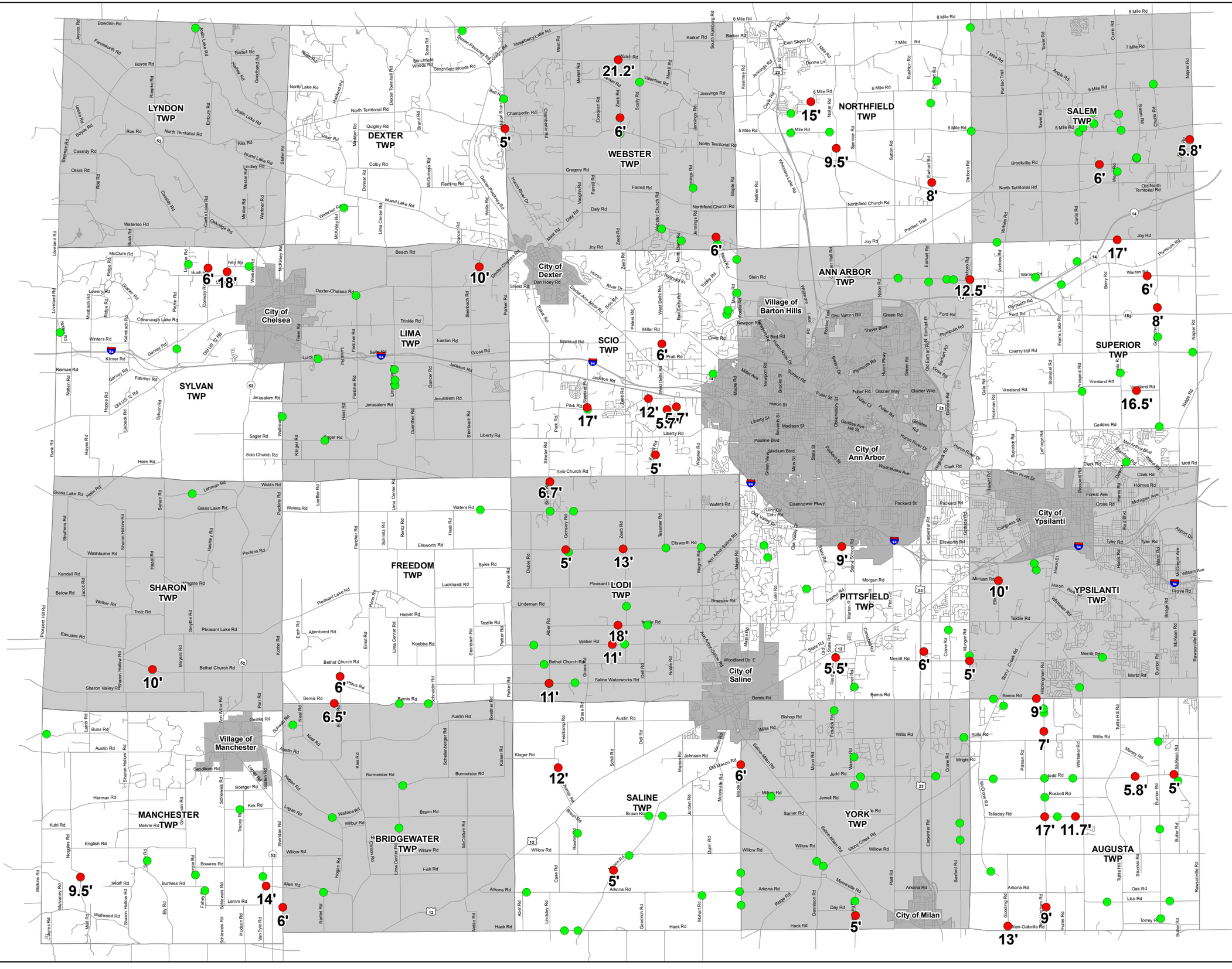
Township	2021 Conventional Local Road Matching Program	2020 Conventional Local Road Matching Program	2021 Drainage Matching Program	2020 Drainage Matching Program
Ann Arbor	$23,270	$23,275	$3,782	$3,782
Augusta	48,679	48,695	14,652	14,652
Bridgewater	25,889	25,900	11,526	11,526
Dexter	35,250	35,260	7,008	7,008
Freedom	29,871	29,884	13,618	13,618
Lima	33,985	33,998	12,804	12,804
Lodi	49,762	49,778	12,664	12,664
Lyndon	26,393	26,403	10,629	10,629
Manchester	31,501	31,514	13,091	13,091
Northfield	54,999	55,015	13,847	13,847
Pittsfield	151,176	151,202	4,894	4,894
Salem	36,129	36,140	10,535	10,535
Saline	21,203	20,920	8,217	8,217
Scio	82,305	82,322	7,131	7,131
Sharon	22,976	22,986	9,939	9,939
Superior	69,111	69,128	9,753	9,753
Sylvan	29,236	29,247	11,096	11,096
Webster	38,665	38,676	11,787	11,787
York	60,022	60,038	8,615	8,615
Ypsilanti	229,578	229,618	4,412	4,412
Totals	**$1,100,000**	**$1,100,000**	**$200,000**	**$200,000**

Appendix D: Township Contribution Summary, 2017 – 2020

This chart includes all contributions made by a township to WCRC including local road investments, non-motorized improvements, bond payments, primary road investments by a township, etc.

Township	2017	2018	2019	2020	4-Year Average
Ann Arbor	$655,070	$92,109	$232,862	$240,137	$305,044
Augusta	120,462	161,503	145,470	277,080	176,129
Bridgewater	28,245	12,543	64,606	16,831	30,556
Dexter	22,346	197,973	150,361	96,797	116,869
Freedom	28,315	44,258	39,090	44,743	39,102
Lima	207,502	236,477	171,533	206,634	205,536
Lodi	339,568	231,286	196,082	117,308	221,061
Lyndon	32,588	22,550	32,872	17,424	26,359
Manchester	124,690	105,580	38,747	31,502	75,130
Northfield	107,816	96,714	91,657	74,283	92,618
Pittsfield	959,392	659,425	2,601,981	994,362	1,303,790
Salem	573,943	483,407	3,283,602	1,740,718	1,520,418
Saline	136,294	133,371	149,038	557,529	244,058
Scio	225,961	14,957	20,383	501,479	190,695
Sharon	28,926	49,782	98,669	54,138	57,879
Superior	411,799	141,438	168,491	65,626	196,839
Sylvan	81,838	72,370	26,115	114,611	73,734
Webster	368,739	150,531	198,297	38,428	188,999
York	146,686	465,358	205,542	375,053	298,160
Ypsilanti	941,218	1,214,181	1,147,958	809,371	1,028,182
Totals	**$5,541,399**	**$4,585,814**	**$9,063,358**	**$6,374,053**	**$6,391,156**

Appendix E: Local Collector Road Culverts – County-wide Map



WASHTENAW COUNTY ROAD COMMISSION

Local Collector Road Culverts 5' to 20'

- Fair to Good Condition
- Poor Condition

Note: Does not include bridges on local roads that are 20' and greater in span.

0 1 2 Miles

N

Date: March, 2021

Appendix F: Life of a Road Flyer

The Life of a Road

Preserving our investments with preventative maintenance

Road work is an expensive endeavor. The Washtenaw County Road Commission (WCRC) works very hard apply the principles of asset management with the available preventative maintenance tools to maintain the more than 1,600 miles of road under WCRC's jurisdiction. Check out the graphic below to get an idea of when each tool is the best option, depending on the road condition and budget constraints.

Crack Seal

Estimated Cost*: $10,000 per mile

Impact: Can last up to 3 years

What: Fills cracks (less than 3/4" wide) with asphalt sealant. Seals pavement from water and debris.

When: The best time to crack seal is when cracks start to develop and are still relatively small.

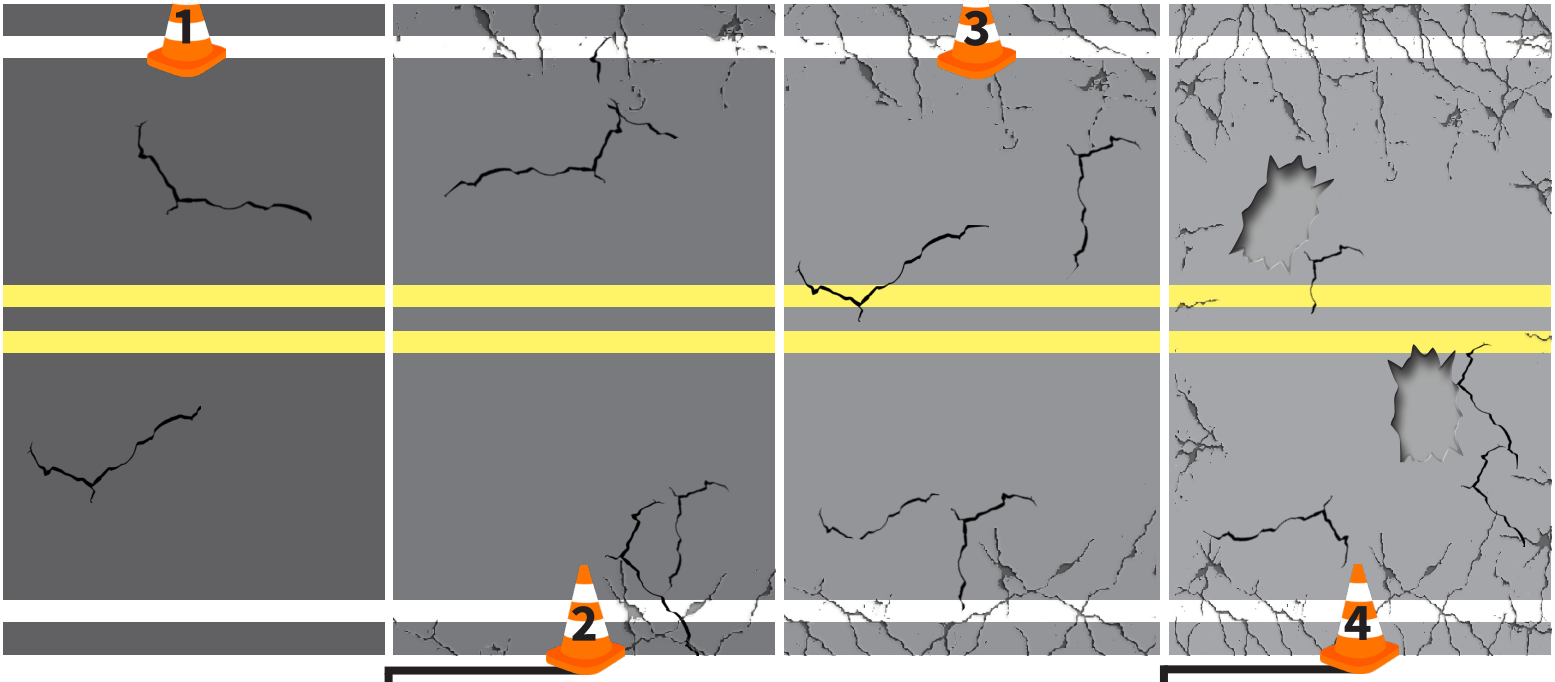
Mill and Overlay

Estimated Cost*: $180,000 per mile

Impact: Can extend the road life by 5 to 7+ years

What: One layer of existing asphalt is removed and the road is resurfaced with a new layer of asphalt.

When: The best time to mill and overlay is when the top layer of pavement has started to deteriorate with visible cracking and shoulder issues.



Seal Coat (Chip Seal and Fog Seal)

Estimated Cost*: $23,000 - $37,000 per mile

Impact: Can extend the road life by 3 to 5 years

What: Thin layer of liquid asphalt that seals pavement from water, sunshine and debris.

When: The best time for seal coat is when the road is still in good or fair condition with slight cracking starting to show. WCRC is working to seal coat new pavement within a year or two after it has been placed to extend the pavement life.

Pulverize and Resurface

Estimated Cost*: $350,000 per mile

Impact: Can extend the road life by 10 to 15+ years

What: A pulverizer, capable of breaking up 6 to 10" of existing asphalt and aggregate base, recycles and compacts the pulverized asphalt to create a new road base, and then covers it with two layers of new asphalt.

When: This is one of the last options due to cost. It is used when the road is in very poor condition with large potholes and heavy cracking.

**Estimated costs are based on 2020 prices for two-lane roads*

Questions? Contact WCRC

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Appendix G: Summary of Local Road Needs, By Township

Township	Total Needs for Local Paved Roads	Total Needs for Local Unpaved Roads	Total Needs for Local Roads	Average 10-year Annual Expenditure Needed for Local Roads
Ann Arbor	$1,243,020	$1,050,200	$2,293,220	$229,322
Augusta	1,330,925	3,830,000	5,160,925	516,093
Bridgewater	164,100	3,244,000	3,408,100	340,810
Dexter	2,230,537	2,040,000	4,270,537	427,054
Freedom	31,800	3,701,600	3,733,400	373,340
Lima	923,980	3,236,000	4,159,980	415,998
Lodi	1,851,472	3,376,000	5,227,472	522,747
Lyndon	41,040	2,946,200	2,987,240	298,724
Manchester	103,020	3,695,200	3,798,220	379,822
Northfield	2,123,773	3,728,200	5,851,973	585,197
Pittsfield	11,312,583	1,133,600	12,446,183	1,244,618
Salem	595,755	2,671,000	3,266,755	326,676
Saline	47,100	2,231,200	2,278,300	227,830
Scio	3,667,244	2,323,200	5,990,444	599,044
Sharon	-	2,775,200	2,775,200	277,520
Superior	4,856,748	2,321,000	7,177,748	717,775
Sylvan	3,110,287	2,091,800	5,202,087	520,209
Webster	336,000	3,302,400	3,638,400	363,840
York	4,271,450	2,139,400	6,410,850	641,085
Ypsilanti	19,754,478	785,000	20,539,478	2,053,948
Totals	**$57,995,312**	**$52,621,200**	**$110,616,512**	**$27,654,128**

Appendix H: Taxable Valuation Data, By Township

Township	2020 Taxable Value	Millage Amount			
		0.50	1.00	2.00	3.00
Ann Arbor	$ 583,474,104	$ 291,737	$ 583,474	$ 1,166,948	$ 1,750,422
Augusta	268,596,530	134,298	268,597	537,193	805,790
Bridgewater	101,525,151	50,763	101,525	203,050	304,575
Dexter	428,676,267	214,338	428,676	857,353	1,286,029
Freedom	189,508,679	94,754	189,509	379,017	568,526
Lima	259,158,320	129,579	259,158	518,317	777,475
Lodi	479,585,000	239,793	479,585	959,170	1,438,755
Lyndon	175,367,181	87,684	175,367	350,734	526,102
Manchester	211,794,990	105,897	211,795	423,590	635,385
Northfield	383,106,394	191,553	383,106	766,213	1,149,319
Pittsfield	2,129,914,501	1,064,957	2,129,915	4,259,829	6,389,744
Salem	409,111,740	204,556	409,112	818,223	1,227,335
Saline	114,631,532	57,316	114,632	229,263	343,895
Scio	1,405,441,247	702,721	1,405,441	2,810,882	4,216,324
Sharon	104,530,547	52,265	104,531	209,061	313,592
Superior	693,099,985	346,550	693,100	1,386,200	2,079,300
Sylvan	215,800,401	107,900	215,800	431,601	647,401
Webster	458,544,108	229,272	458,544	917,088	1,375,632
York	451,107,630	225,554	451,108	902,215	1,353,323
Ypsilanti	1,448,398,858	724,199	1,448,399	2,896,798	4,345,197
Totals	**$10,511,373,165**	**$ 5,255,687**	**$ 10,511,374**	**$ 21,022,748**	**$ 31,534,122**

Appendix I: Summary of Revenue Generated with a Township-Wide Special Assessment District (SAD), By Township

Township	Parcel Count (2020)	Revenue at $60/parcel	Revenue at $70/parcel	Revenue at $80/parcel	Revenue at $90/parcel
Ann Arbor	2,059	$123,540	$144,130	$164,720	$185,310
Augusta	3,576	214,560	250,320	286,080	321,840
Bridgewater	1,155	69,300	80,850	92,400	103,950
Dexter	3,621	217,260	253,470	289,680	325,890
Freedom	1,222	73,320	85,540	97,760	109,980
Lima	1,931	115,860	135,170	154,480	173,790
Lodi	2,688	161,280	188,160	215,040	241,920
Lyndon	1,676	100,560	117,320	134,080	150,840
Manchester	3,021	181,260	211,470	241,680	271,890
Northfield	4,622	277,320	323,540	369,760	415,980
Pittsfield	13,052	783,120	913,640	1,044,160	1,174,680
Salem	3,486	209,160	244,020	278,880	313,740
Saline	1,392	83,520	97,440	111,360	125,280
Scio	7,654	459,240	535,780	612,320	688,860
Sharon	1,178	70,680	82,460	94,240	106,020
Superior	6,016	360,960	421,120	481,280	541,440
Sylvan	1,952	117,120	136,640	156,160	175,680
Webster	3,057	183,420	213,990	244,560	275,130
York	3,234	194,040	226,380	258,720	291,060
Ypsilanti	19,776	1,186,560	1,384,320	1,582,080	1,779,840
Totals	**86,368**	**$5,182,080**	**$6,045,760**	**$6,909,440**	**$7,773,120**