



2023 Regional Pavement Condition Survey Report

Prepared by The Grand Valley Metro Council

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Purpose and Background

Purpose

The purpose of this report is to document the annual survey undertaken by GVMC and its member agencies to determine the overall pavement condition of the federal aid road network, or NFC in the Grand Rapids MPO area (see map on next page). The report has been developed with the distinct intent that updates can be developed without significant commitment of financial or staffing resources.

* Any reference to National Functional Class (“NFC”) in this document refers to the federal aid network with an NFC < 7. GVMC’s members identify federal aid roads as being “on the NFC”. As well, if “Local NFC” is referenced that assumes the omission of Michigan Department of Transportation (MDOT) roads where the Legasl System <> 1.

Background

For the Grand Valley Metro Council and its member communities, the desire to have up to date knowledge of the condition of the federal aid system began in 1995 with the initiation of the GVMC Pavement Management System (PaMS). While federal regulation requiring the maintenance of a PaMS came and went in the mid 90’s, GVMC and its member communities strongly supported continuation of the collection of pavement condition data.

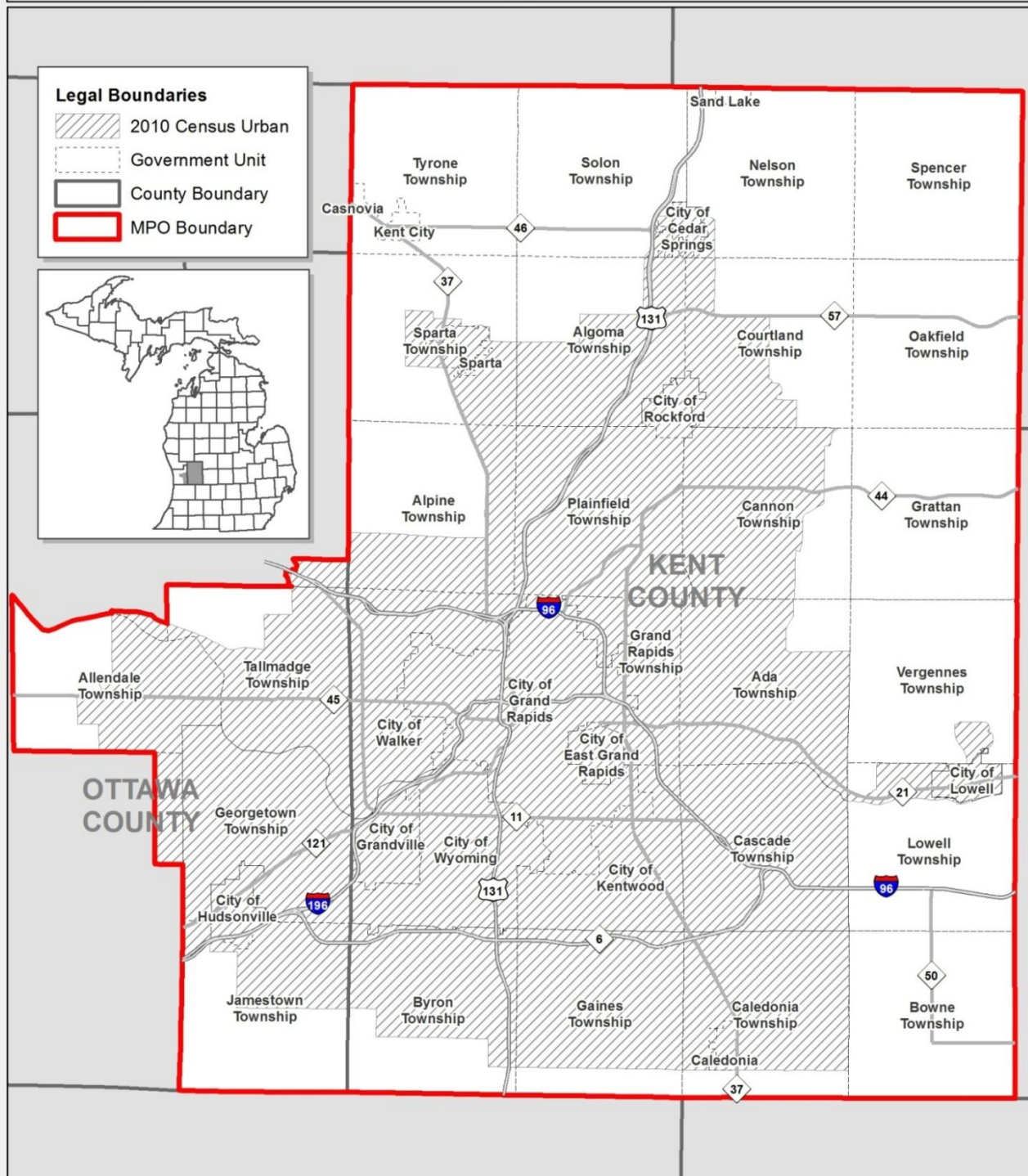
Act 499 of the Public Acts of 2002 mandated that beginning October 1, 2003, MDOT, each county road commission, and each city and village in the State of Michigan was required to annually prepare and publish a multiyear program, based on long-range plans, and developed through the use of an asset management process. In addition, projects contained in each local road agency’s annual multiyear program were to be consistent with the goals and objectives of the local road agency’s long-range plan. A project, funded in whole or part, with state or federal funds, was to be included in any local road agency’s multiyear plan.

Public Act No. 199 of Public Acts of 2007 was approved by the Governor on December 20, 2007. This act removed the long range plan as a potential basis for making programming decisions on transportation investments and required the use of an asset management process. P.A. 199 also made it a requirement that all reporting shall be consistent with categories established by the transportation asset management council.

In recent years GVMC staff has coordinated pavement condition gathering with all member agencies in the region. In addition, GVMC regularly provides technical assistance in the development of pavement asset management plans and other asset management required activities.

GVMC Boundary Map

Metropolitan Planning Organization Urban Boundary



0 1 2 3 4 5 Miles

Disclaimer: GVMC makes no warranty or guarantee regarding maps or other information provided herein. GVMC assumes no liability for errors, omissions, or inaccuracies that result in any decisions made or action taken upon any maps or information presented.

PASER Data Collection

Current Data Collection Efforts

Today more than ever the need for accurate up to date road condition information is critical. GVMC annually assists local communities in the gathering of this data on over 3,000 miles of federal aid and local facilities using the PASER rating system.

Any discussion regarding system conditions must include a clearly defined system to rate conditions. Beginning in 2012 GVMC stopped gathering PCI data and began relying exclusively on the PASER rating system for all planning and programming purposes.

The PASER pavement rating system is based on a scale of 1 to 10 with 10 being a newly constructed pavement and a 1 being a failed pavement with extensive loss of surface integrity that is well beyond its service life and is in dire need of reconstruction. The chart that follows depicts the various levels within the PASER rating system along with the conditions that can be expected for each level.

Michigan Asset Management Council Reporting Requirements

Established by Act 499 of the Public Acts of 2002, the Transportation Asset Management Council (TAMC) was created to expand the practice of asset management statewide and to enhance the efficiency of investing in Michigan's roads and bridges. Part of the TAMC's mission is to collect physical inventory and condition data on all roads and bridges in Michigan.

TAMC is a legislated body of representatives who report to the Michigan Transportation Commission from agencies who own roads or are responsible for road funding that coordinate:

- The collection of condition data for all roads and bridges
- The collection of asset investment data
- The reporting of collected data and analysis to the legislature and State Transportation Commission.

The method used by the TAMC to report the general condition of the roads in Michigan is to group the ratings into three simple and easy to understand categories. This good/fair/poor grouping is meant to easily depict the general condition of the roads under state and local jurisdiction to those with little or no knowledge in asset management.

The TAMC groups pavements according to the following groupings:
PASER 10-8 = Good, PASER 7-5 = Fair, PASER 4-1 = Poor

Michigan Asset Management Council PASER Asphalt Primer

<u>PASER</u>	<u>Condition</u>	<u>Distress Present</u>	<u>Possible Remedy</u>
10	Excellent	No Defects, new pavement	None
9	Excellent	No Defects, pavement < 1 yr	None
8	Very Good	Few widespread cracks	Little or none
7	Good	Cracking becoming prominent	Crack Seal
6	Good	Structure sound, block cracking	Seal Coat
5	Fair	Structure sound, crack width > 1/2	Thin Overlay
4	Fair	First signs of weakened structure	Structural Overlay >2"
3	Poor	Alligator cracking, severe block cracking	Mill w/ Structural Overlay 2"
2	Very Poor	Severe rutting, frequent potholes	Reconstruct
1	Failed	Complete Loss of surface integrity	Reconstruct

For more information on the specific techniques and terminology used for rating pavement condition using PASER please go to:

Asphalt

<http://www.apa-mi.org/docs/Asphalt-PASERManual.pdf>

Concrete

<https://www.ctt.mtu.edu/sites/default/files/resources/paser/concretepaser.pdf>

Brick

<https://www.ctt.mtu.edu/sites/default/files/resources/paser/brick&blockpaser.pdf>

Gravel

<https://www.ctt.mtu.edu/sites/default/files/resources/paser/gravelpaser.pdf>

The following collection of images show what both Concrete and Asphalt might look through PASER ratings from 10 to 1.

PASER Rating Photo Examples

PASER 10



Patterson – North of 28th Street



Monroe – North of Leonard

PASER 9



Baldwin Extension – West of I-196



Balsam – North of Rosewood

PASER 8



M-6 – East of US-131



36th Street East of East Paris

PASER 7



Leonard St – East of Remembrance



Market Ave – East of Freeman

PASER 6



East Beltline Ave – South of Burton



29th Street – West of East Beltline

PASER 5



East Beltline – South of Michigan



Woodworth Ave – East of Coit

PASER 4



Burton Street – Near US-131



Belmont Ave – North of Rogue River

PASER 3



Chicago Drive – West of 32nd



14th Avenue – South of 44th Street

PASER 2



Century Avenue North of Burton



Lakeside Drive – South of Robinson

PASER 1



Seward – South of Richmond



Sweet Street – East of Plainfield

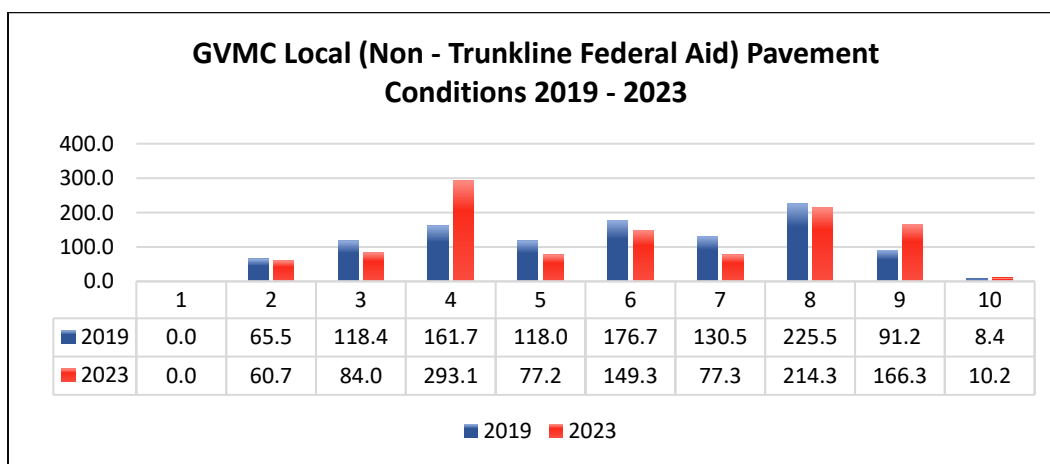
Current MPO Conditions

2023 Survey Results

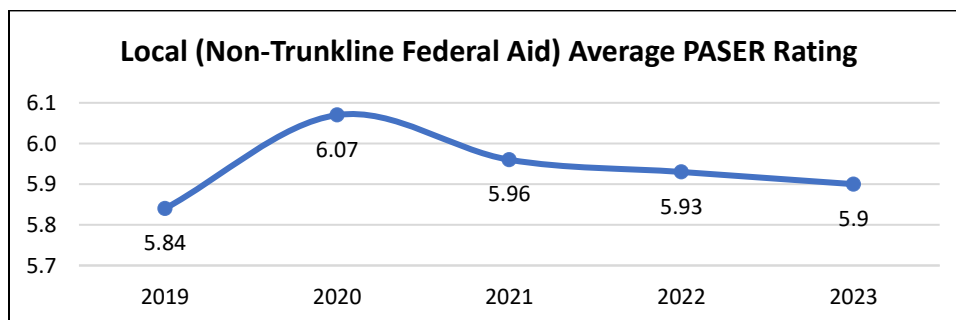
GVMC staff was able to evaluate 100% of the non-trunkline local federal aid Metropolitan Planning Organization (MPO) road network.

To view detailed condition information for the last 3 years please visit our interactive map at <https://www.gvmc.org/pavement-asset-management> . The following maps are in black and white to highlight the network being analyzed.

Compared to 5 years ago, the overall pavement condition in the GVMC area is on the rise. 2023 saw a slight decrease in the overall PASER rating average compared to 2022. It would stand to reason that with continued investment and use of the “Mix of Fix” strategy, we should be able to find our average into the medium fair (PASER of 6) for the MPO in the near future.



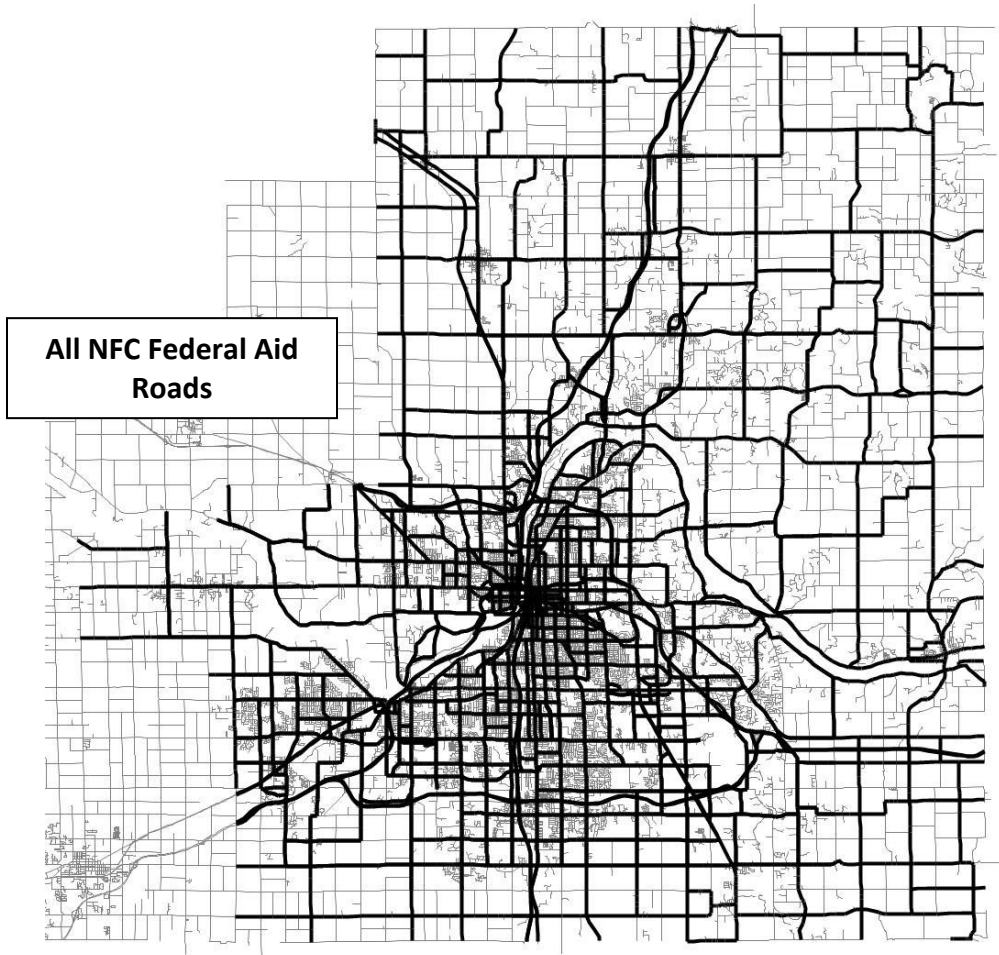
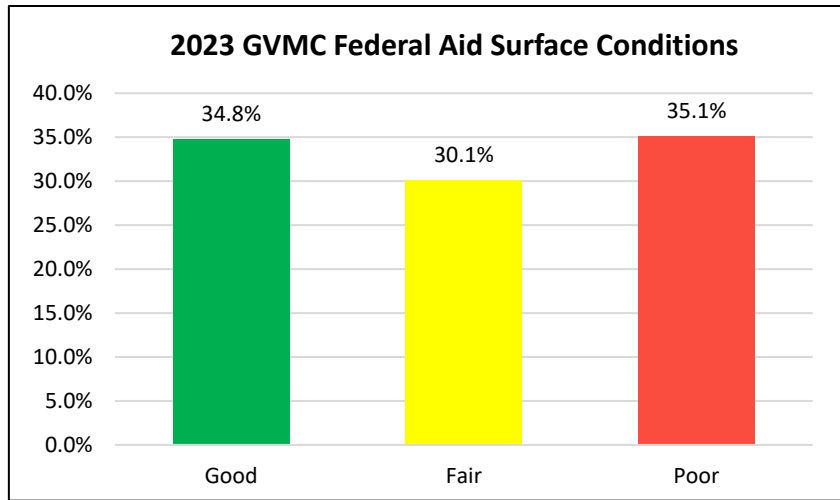
2019 Overall Rating = 5.85 2023 Overall Rating = 5.9



All MPO Federal Aid Pavement Conditions

Average PASER = 6.0 (Good/Fair = 65.2%)

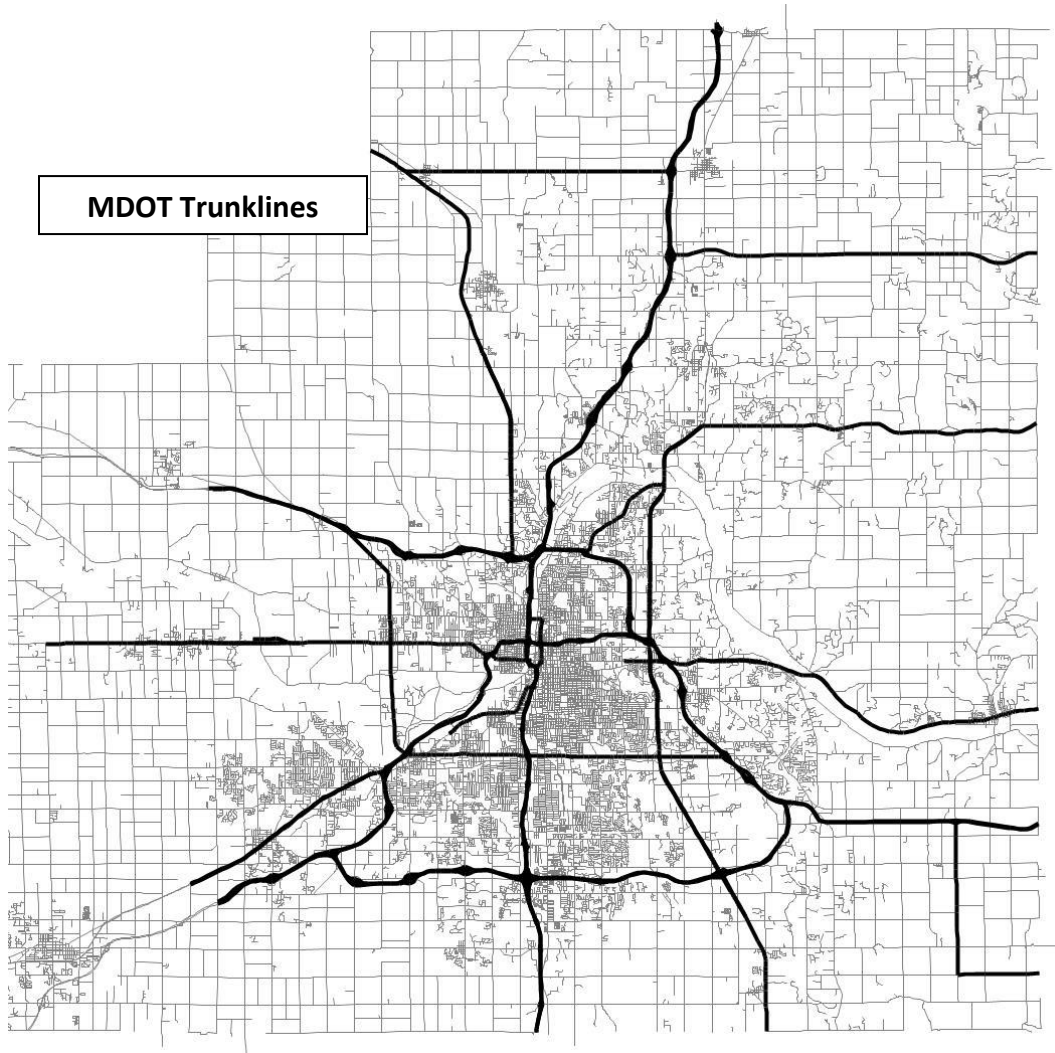
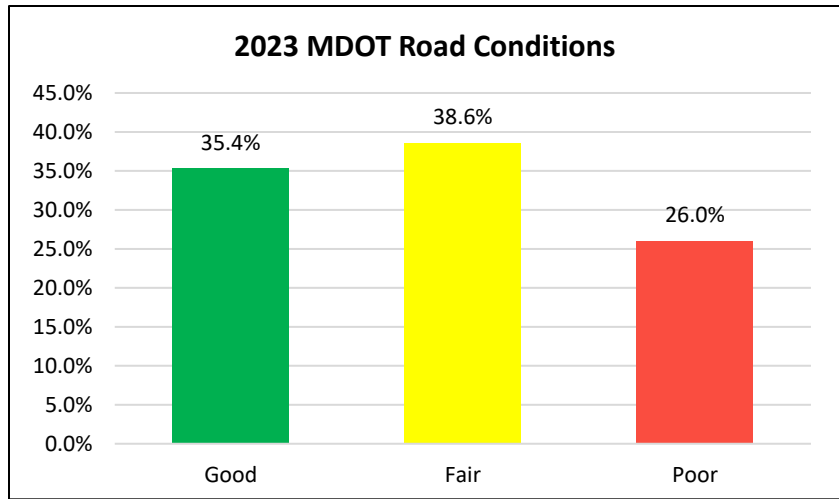
<u>PASER</u>	<u>Miles</u>	<u>Percent</u>
1	0.0	0.00%
2	63.6	4.08%
3	112.9	7.23%
4	372.1	23.85%
5	128.2	8.21%
6	231.5	14.84%
7	109.7	7.03%
8	284.5	18.23%
9	245.9	15.76%
10	12.0	0.77%
Total	1,560.3	100%



MDOT Trunkline Pavement Conditions

Average PASER = 6.25 (Good/Fair = 74.0%)

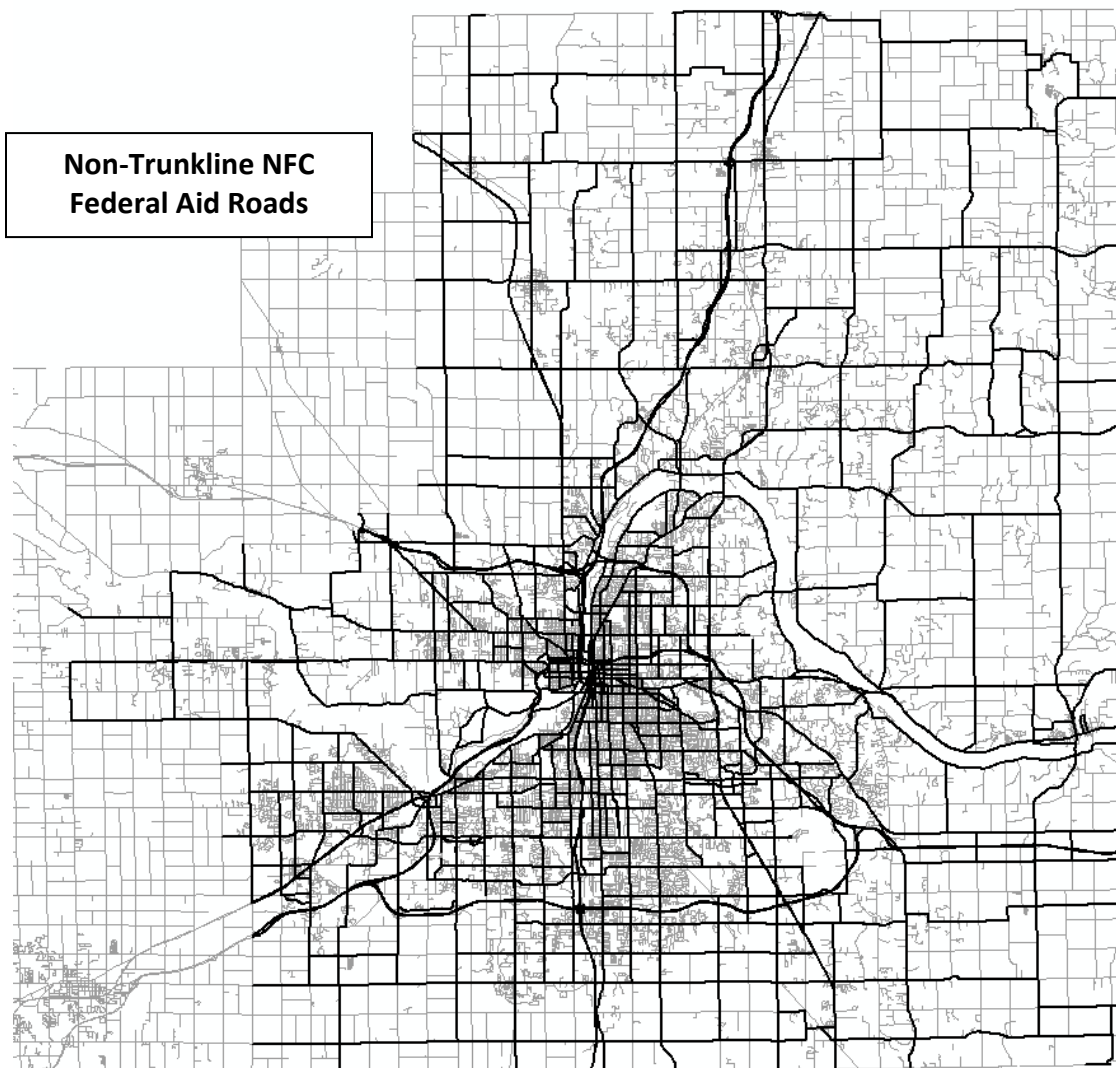
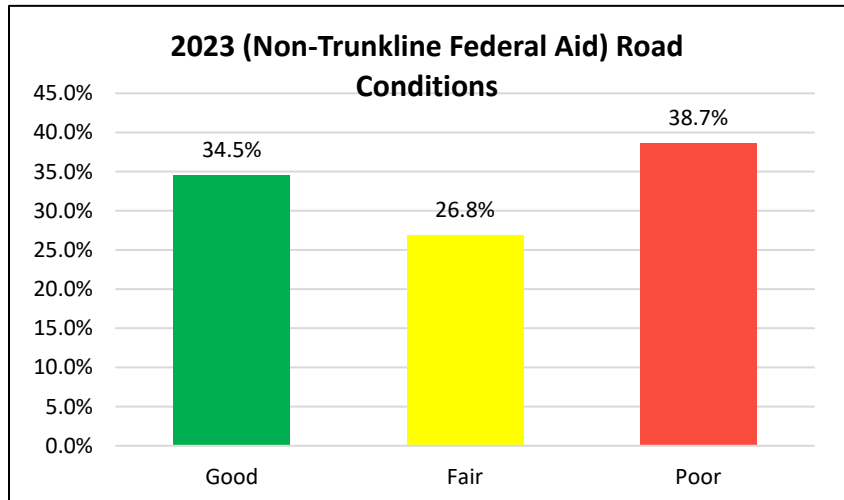
PASER	Miles	Percent
1	0.0	0.00%
2	4.3	0.99%
3	28.8	6.70%
4	79.0	18.35%
5	51.0	11.83%
6	82.9	19.25%
7	32.4	7.53%
8	70.6	16.38%
9	79.9	18.56%
10	1.8	0.41%
Total	430.647	100.00%



Non-Trunkline Federal Aid Pavement Conditions

Average PASER= 5.91 (Good/Fair = 61.3%)

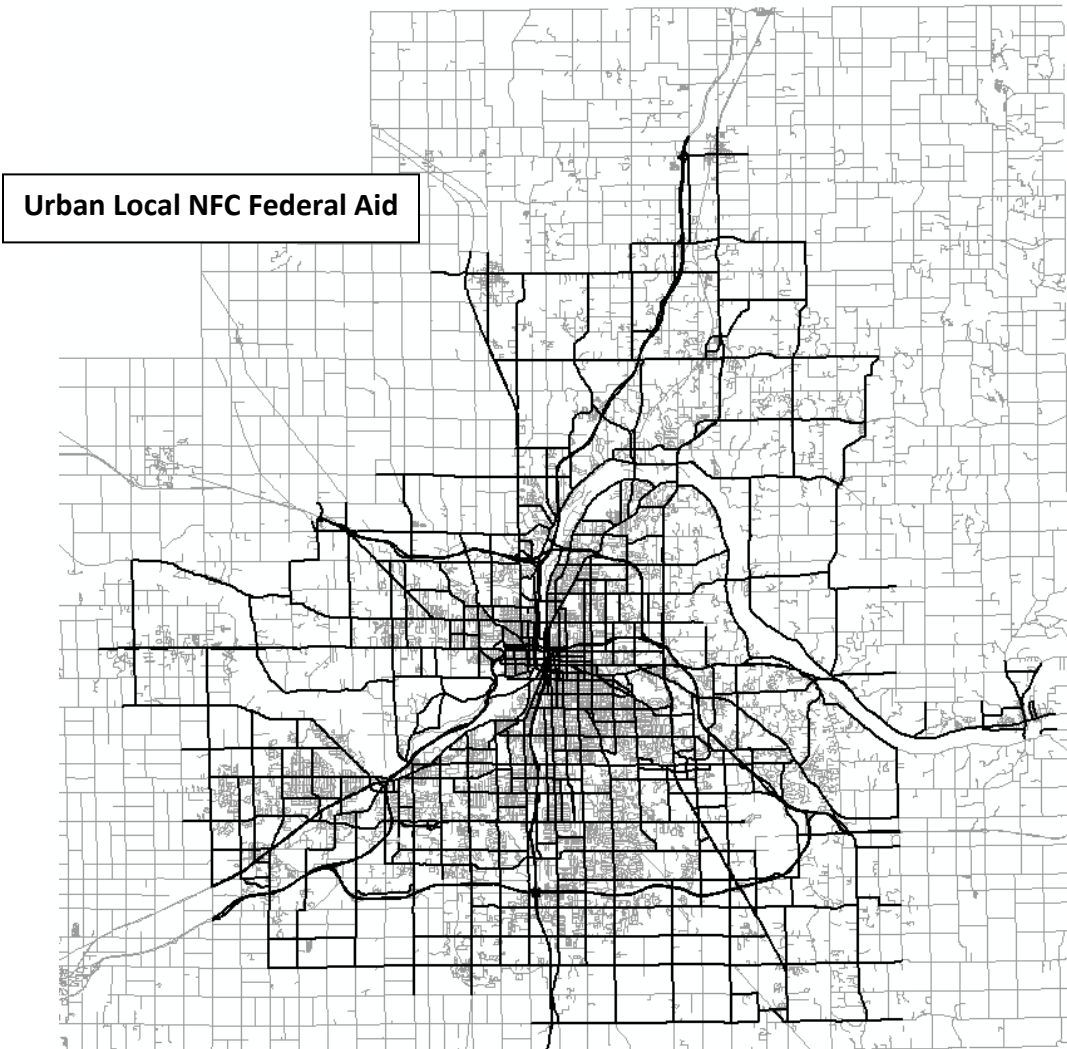
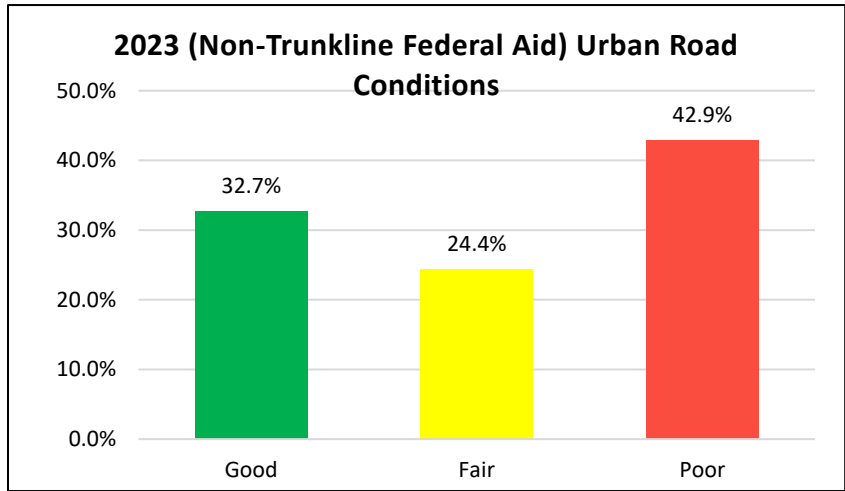
PASER	Miles	Percent
1	0.0	0.00%
2	60.7	5.36%
3	84.0	7.42%
4	293.1	25.88%
5	77.2	6.82%
6	149.3	13.19%
7	77.3	6.83%
8	214.3	18.92%
9	166.3	14.68%
10	10.2	0.90%
Total	1,132.32	100%



Non-Trunkline Local Urban Federal Aid

Average PASER = 5.87 (Good/Fair = 57.1%)

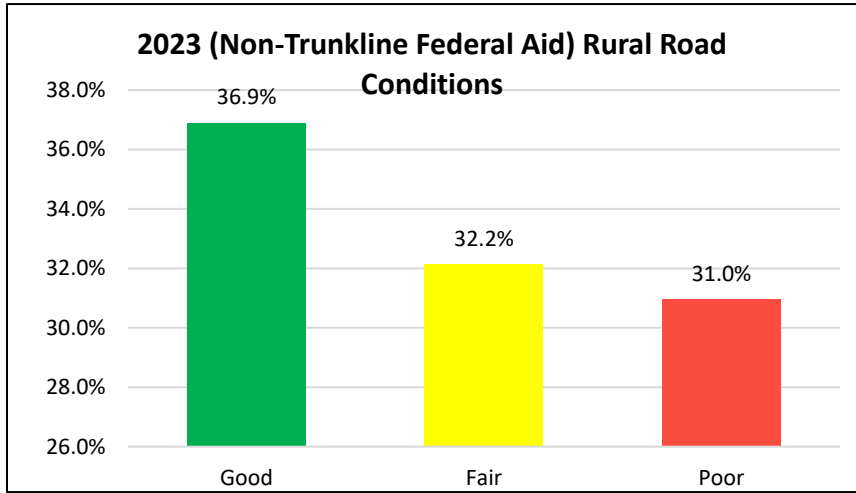
PASER	Miles	Percent
1	0	0.00%
2	49.96	5.53%
3	69.535	7.70%
4	268.116	29.68%
5	51.1	5.66%
6	111.384	12.33%
7	58.048	6.43%
8	145.456	16.10%
9	139.505	15.44%
10	10.181	1.13%
Total	903.285	100%



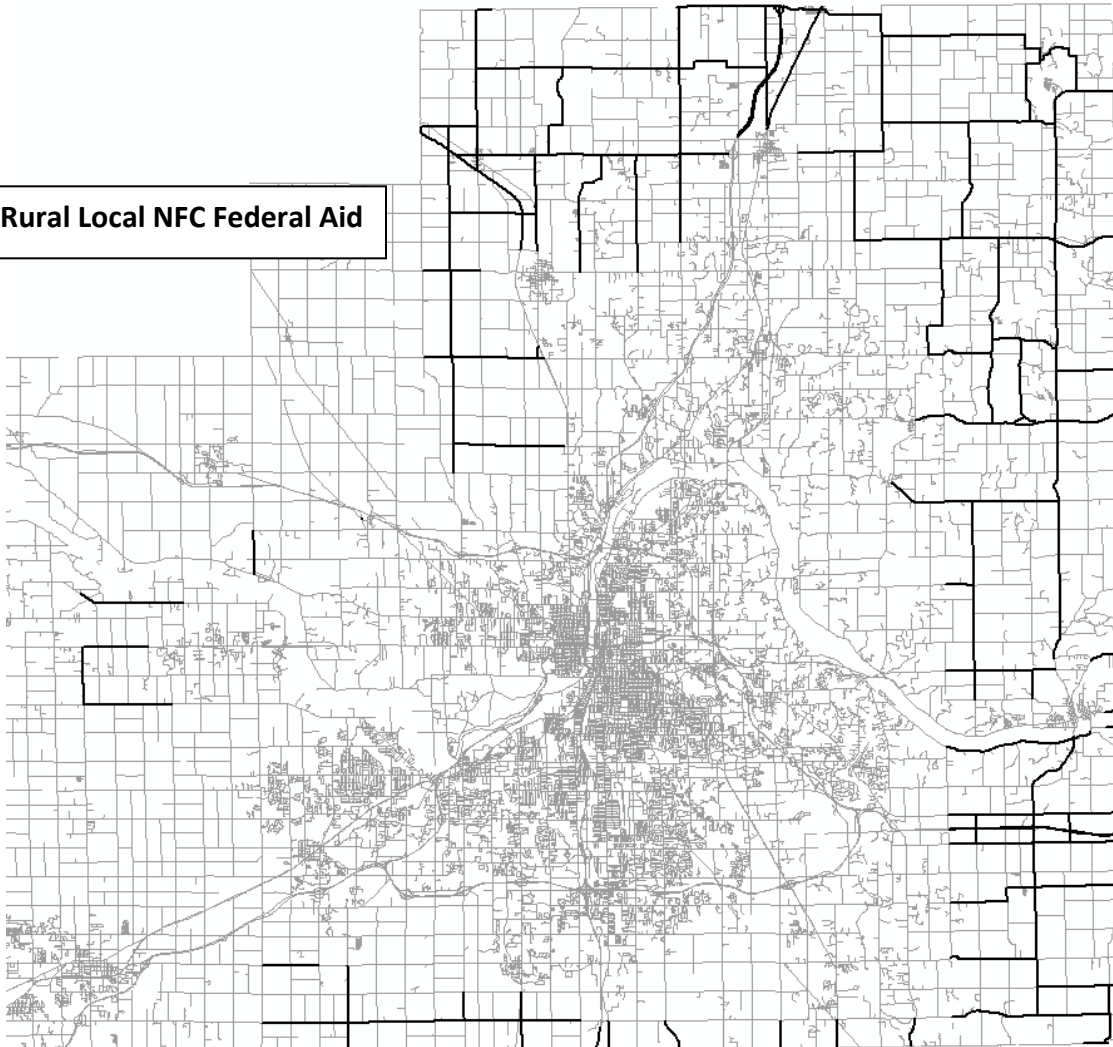
Non-Trunkline Local Rural Federal Aid

Average PASER = 6.05 (Good/Fair = 69.1%)

<u>PASER</u>	<u>Miles</u>	<u>Percent</u>
1	0	0.00%
2	10.73	4.14%
3	14.481	5.59%
4	54.968	21.22%
5	26.089	10.07%
6	37.93	14.64%
7	19.258	7.43%
8	68.819	26.57%
9	26.755	10.33%
10	0	0.00%
Total	259.03	100%

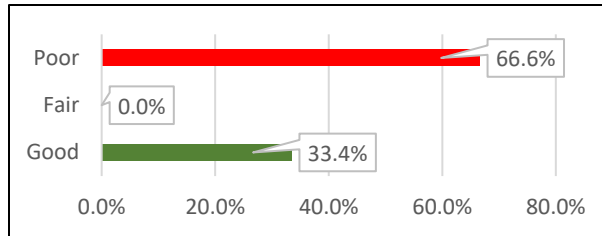
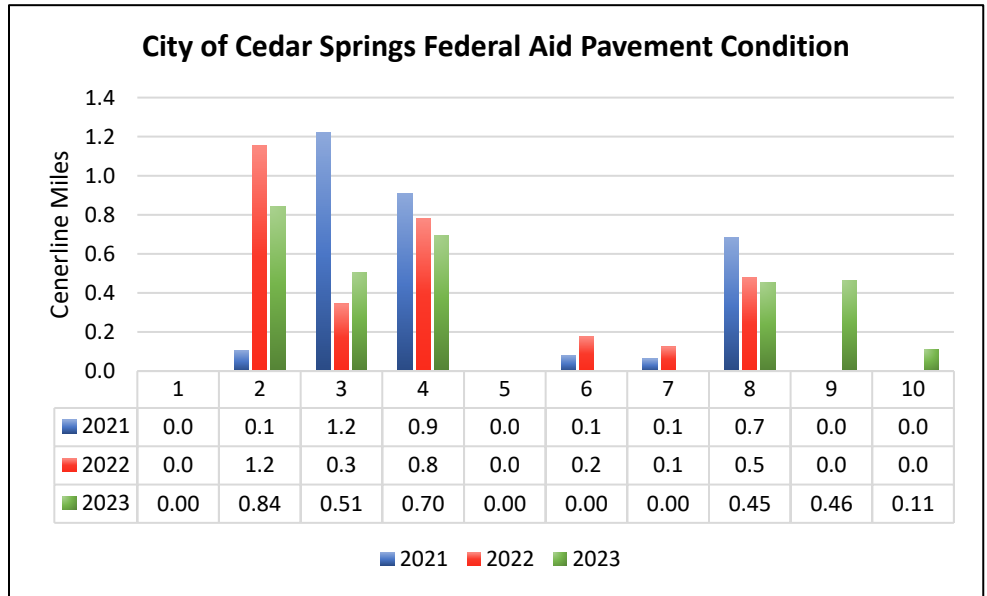


Rural Local NFC Federal Aid

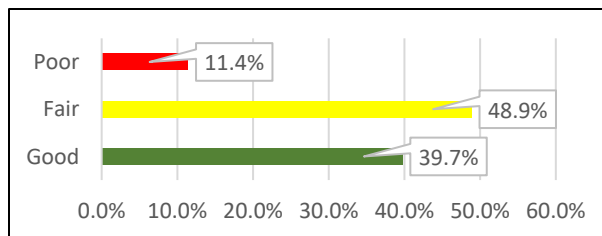
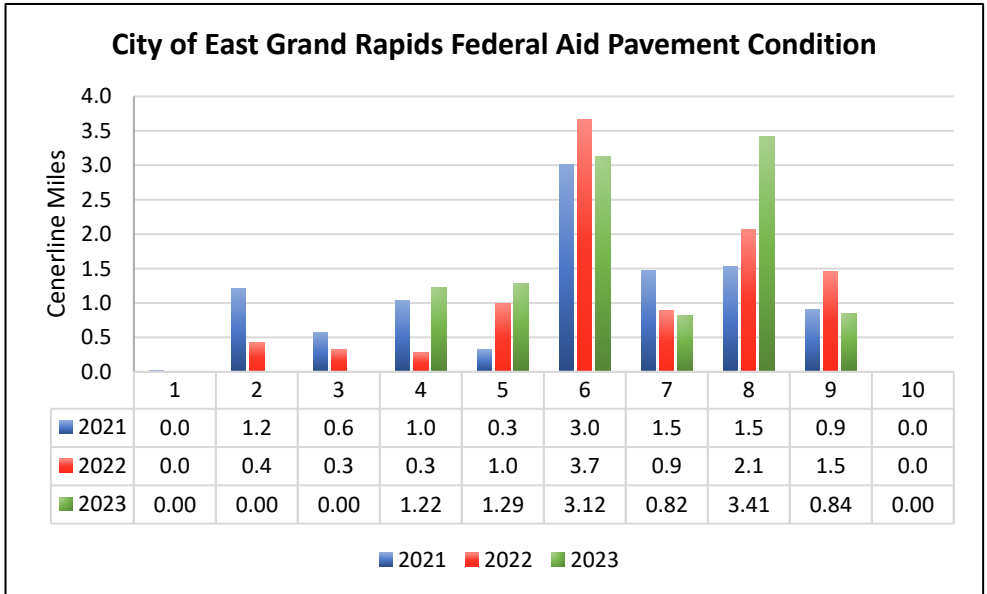


Pavement Conditions by Jurisdiction

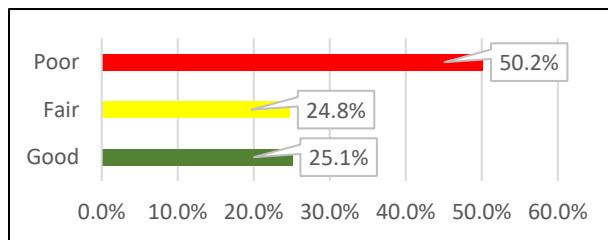
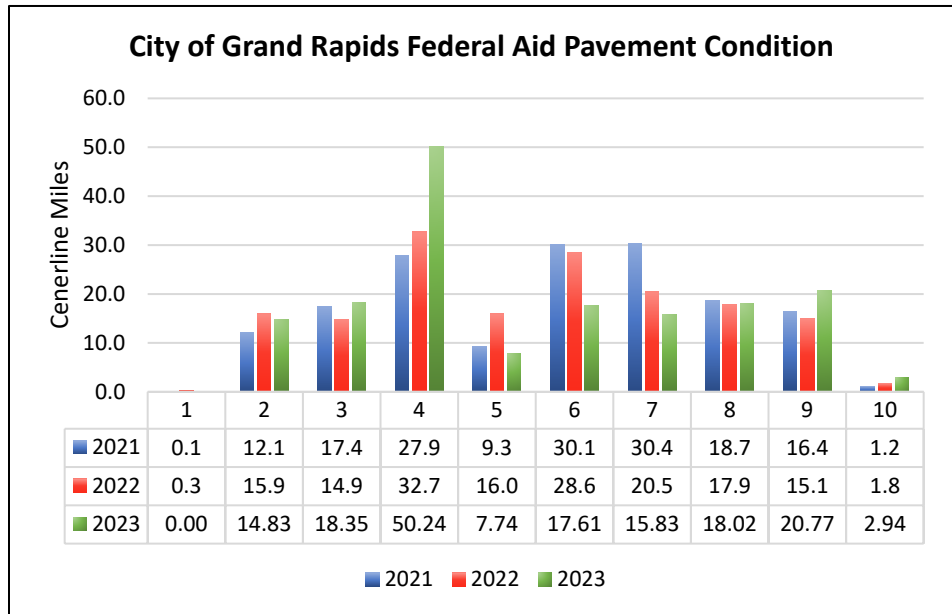
City of Cedar Springs		
2021 System Average – 4.540		
2022 System Average – 3.999		
2023 System Average – 4.845		
PASER	Miles	Percent
1	0.00	0.00%
2	0.84	27.43%
3	0.51	16.47%
4	0.70	22.67%
5	0.00	0.00%
6	0.00	0.00%
7	0.00	0.00%
8	0.45	14.81%
9	0.46	15.10%
10	0.11	3.52%
Total	3.07	100.00%



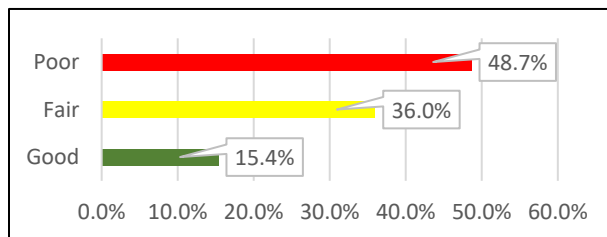
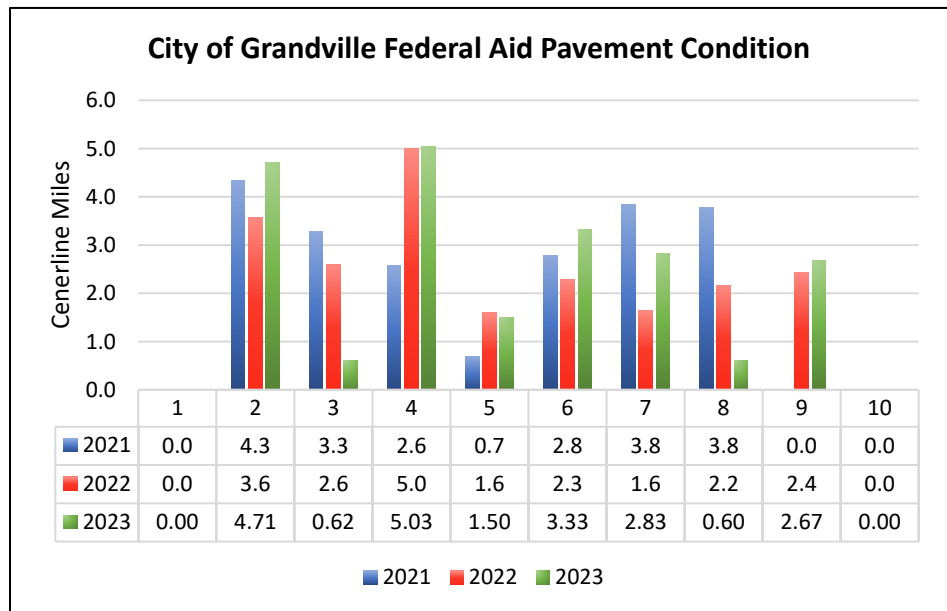
City of East Grand Rapids		
2021 System Average—5.814		
2022 System Average—6.515		
2023 System Average—6.601		
PASER	Miles	Percent
1	0.00	0.00%
2	0.00	0.00%
3	0.00	0.00%
4	1.22	11.41%
5	1.29	12.04%
6	3.12	29.15%
7	0.82	7.68%
8	3.41	31.86%
9	0.84	7.87%
10	0.00	0.00%
Total	10.72	100.00%



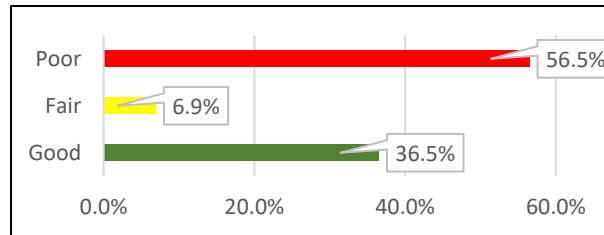
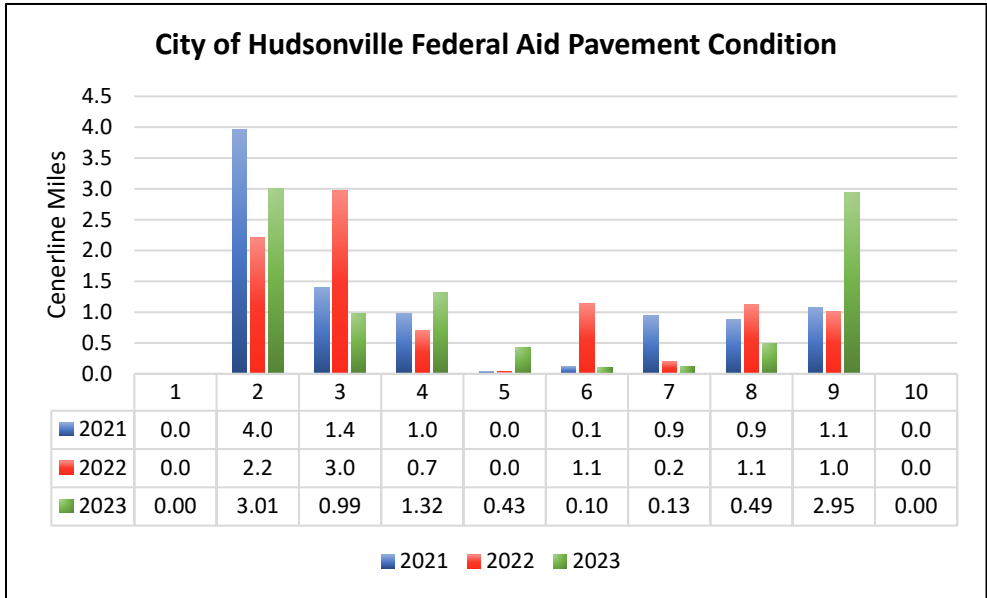
City of Grand Rapids		
2021 System Average — 5.729		
2022 System Average — 5.496		
2023 System Average — 5.419		
PASER	Miles	Percent
1	0.00	0.00%
2	14.83	8.92%
3	18.35	11.03%
4	50.24	30.20%
5	7.74	4.65%
6	17.61	10.59%
7	15.83	9.51%
8	18.02	10.84%
9	20.77	12.49%
10	2.94	1.77%
Total	166.32	100.00%



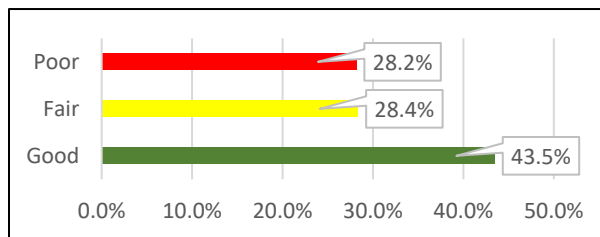
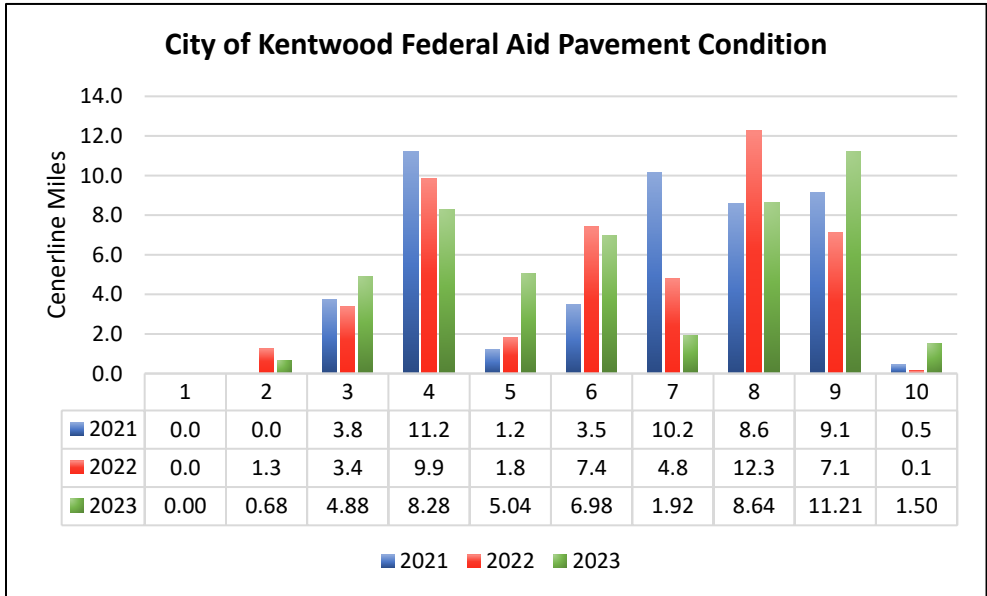
City of Grandville		
2021 System Average – 4.984		
2022 System Average – 5.042		
2023 System Average – 5.051		
PASER	Miles	Percent
1	0.00	0.00%
2	4.71	22.11%
3	0.62	2.90%
4	5.03	23.64%
5	1.50	7.06%
6	3.33	15.65%
7	2.83	13.27%
8	0.60	2.82%
9	2.67	12.54%
10	0.00	0.00%
Total	21.29	100.00%



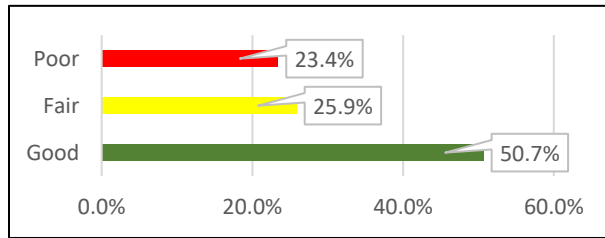
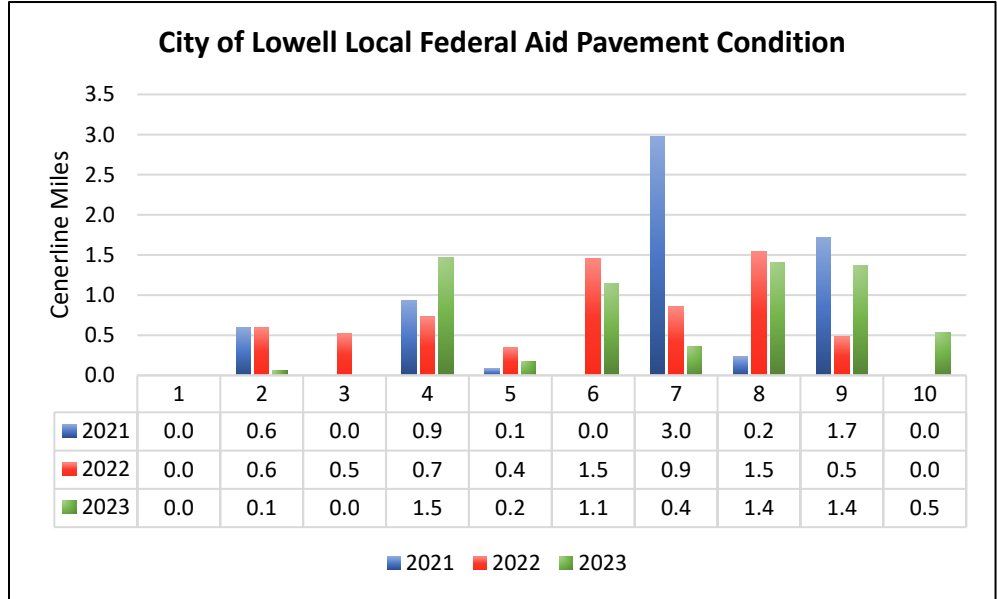
City of Hudsonville		
2021 System Average – 4.292		
2022 System Average – 4.535		
2023 System Average – 5.136		
PASER	Miles	Percent
1	0.00	0.00%
2	3.01	32.00%
3	0.99	10.49%
4	1.32	14.03%
5	0.43	4.59%
6	0.10	1.02%
7	0.13	1.33%
8	0.49	5.22%
9	2.95	31.32%
10	0.00	0.00%
Total	9.40	100.00%



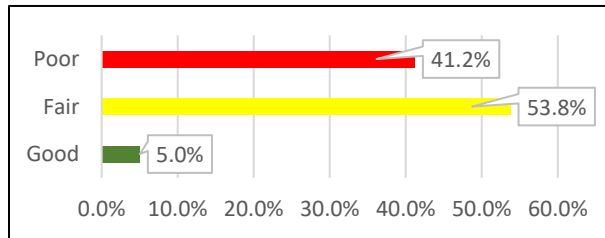
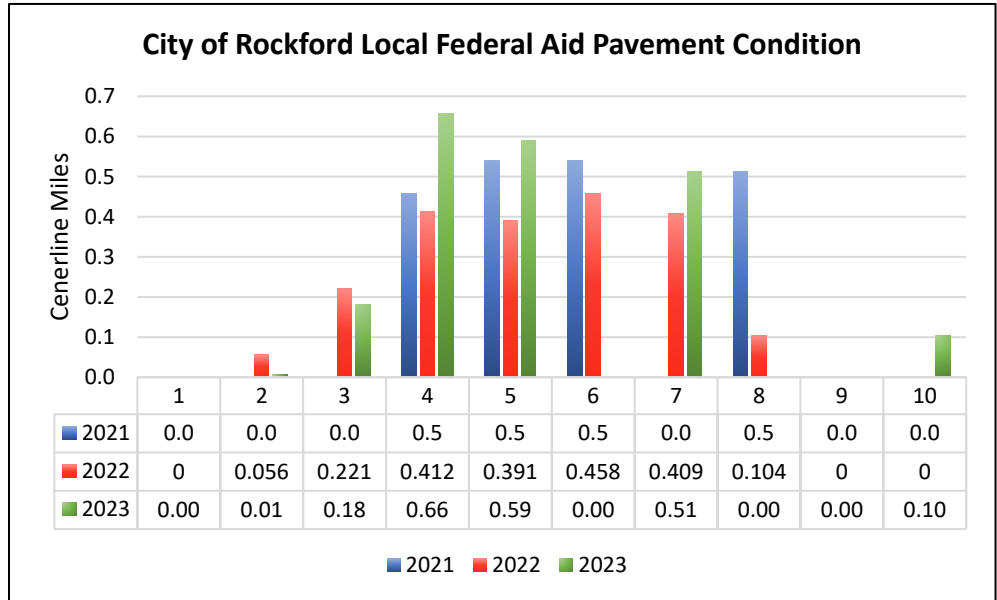
City of Kentwood		
2021 System Average – 6.451		
2022 System Average – 6.302		
2023 System Average – 6.405		
PASER	Miles	Percent
1	0.00	0.00%
2	0.68	1.38%
3	4.88	9.93%
4	8.28	16.85%
5	5.04	10.26%
6	6.98	14.20%
7	1.92	3.91%
8	8.64	17.59%
9	11.21	22.82%
10	1.50	3.05%
Total	49.13	100.00%



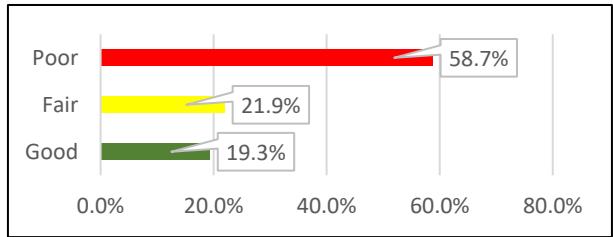
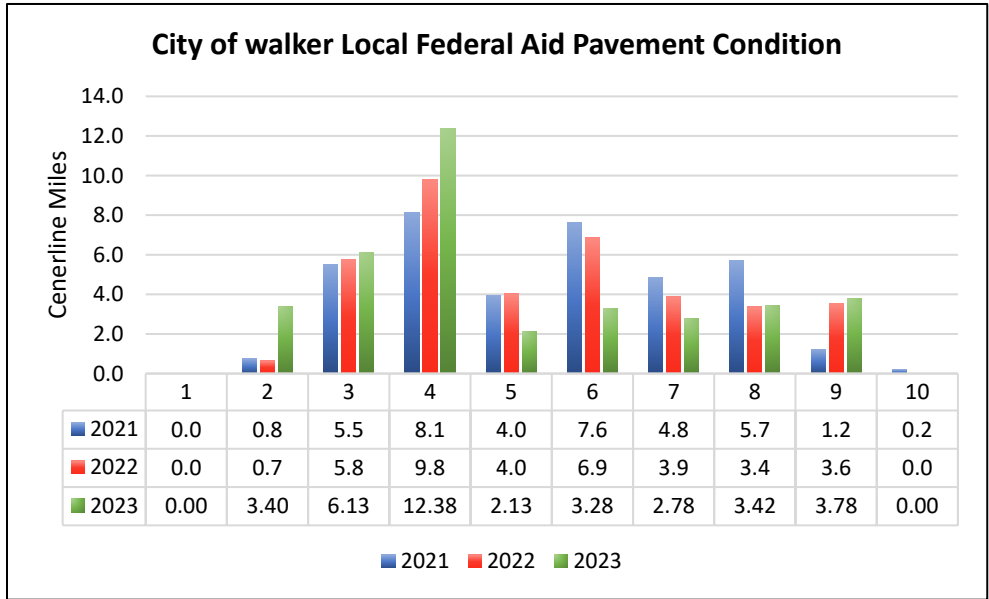
City of Lowell		
2021 System Average – 6.650		
2022 System Average – 5.948		
2023 System Average – 6.929		
PASER	Miles	Percent
1	0.0	0.00%
2	0.1	0.87%
3	0.0	0.00%
4	1.5	22.56%
5	0.2	2.74%
6	1.1	17.58%
7	0.4	5.56%
8	1.4	21.59%
9	1.4	20.88%
10	0.5	8.22%
Total	6.534	100.00%



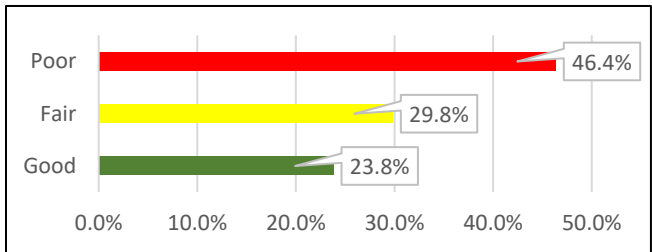
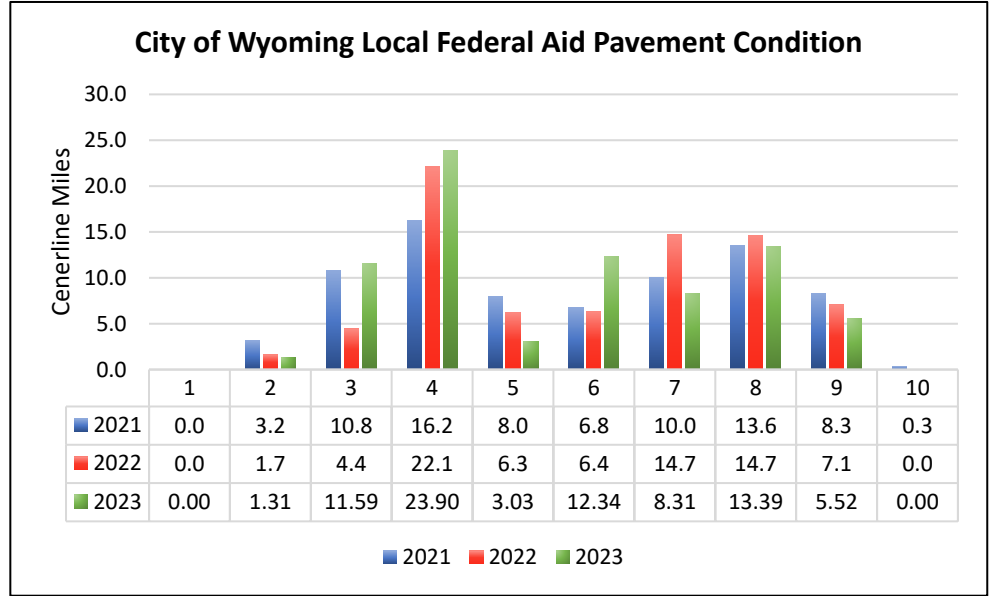
City of Rockford		
2021 System Average – 5.789		
2022 System Average – 5.276		
2023 System Average – 5.244		
PASER	Miles	Percent
1	0.00	0.00%
2	0.01	0.34%
3	0.18	8.82%
4	0.66	32.03%
5	0.59	28.77%
6	0.00	0.00%
7	0.51	25.01%
8	0.00	0.00%
9	0.00	0.00%
10	0.10	5.02%
Total	2.05	100.00%



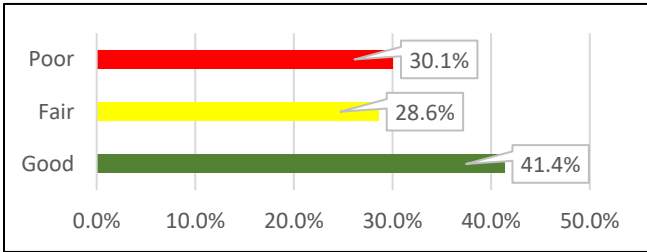
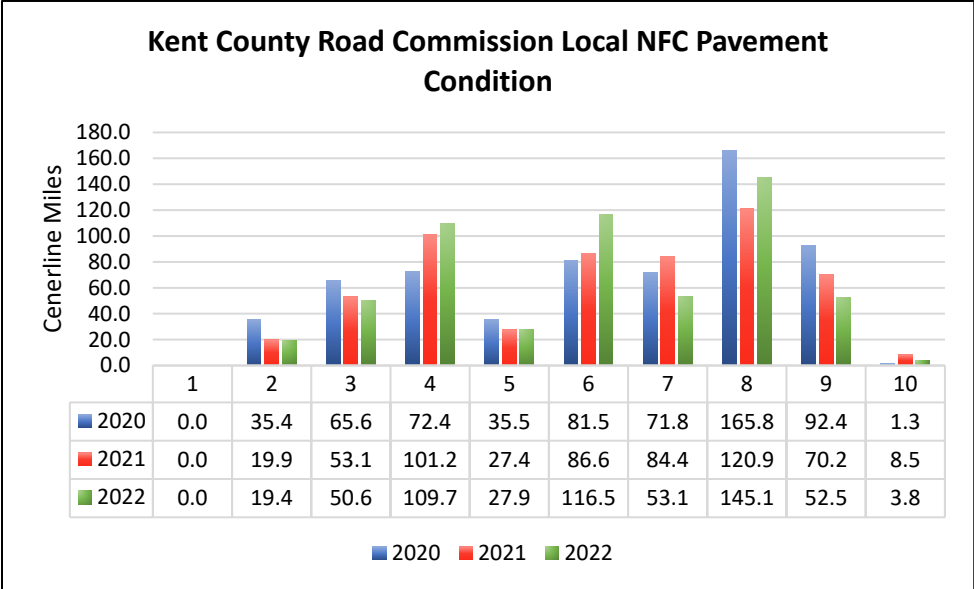
City of Walker		
2021 System Average - 5.581		
2022 System Average - 5.413		
2023 System Average - 4.984		
PASER	Miles	Percent
1	0.00	0.00%
2	3.40	9.10%
3	6.13	16.44%
4	12.38	33.19%
5	2.13	5.70%
6	3.28	8.80%
7	2.78	7.45%
8	3.42	9.18%
9	3.78	10.14%
10	0.00	0.00%
Total	37.30	100.00%



City of Wyoming		
2021 System Average - 5.713		
2022 System Average - 5.931		
2023 System Average - 5.506		
PASER	Miles	Percent
1	0.00	0.00%
2	1.31	1.65%
3	11.59	14.60%
4	23.90	30.10%
5	3.03	3.82%
6	12.34	15.55%
7	8.31	10.47%
8	13.39	16.86%
9	5.52	6.95%
10	0.00	0.00%
Total	79.39	100.00%



Kent County Road Commission		
2021 System Average - 6.148		
2022 System Average - 6.054		
2023 System Average - 6.213		
PASER	Miles	Percent
1	0.00	0.00%
2	26.89	4.12%
3	35.74	5.47%
4	133.56	20.46%
5	56.66	8.68%
6	97.03	14.86%
7	33.01	5.06%
8	170.13	26.06%
9	94.73	14.51%
10	5.10	0.78%
Total	652.84	100.00%



Ottawa County Road Commission		
2021 System Average - 5.692		
2022 System Average - 5.993		
2023 System Average - 5.654		
PASER	Miles	Percent
1	0.00	0.00%
2	6.88	4.72%
3	12.13	8.32%
4	58.07	39.84%
5	1.45	1.00%
6	11.09	7.61%
7	11.14	7.64%
8	15.15	10.39%
9	29.85	20.48%
10	0.01	0.01%
Total	145.76	100.00%

