

Meeting Date: 06/21/2022

By: Bruce Westby, Engineering/Public Works

Title:

Consider Recommendation to City Council to Temporarily Increase Funding for Pavement Management Program

Purpose/Background:

Purpose:

The purpose of this case is to consider making a recommendation to City Council to temporarily increase Pavement Management Program funding to address the immediate street reconstruction bubble needs.

Background:

Pavement Management Program Background

The City maintains over 186 miles of bituminous paved City streets and is in the seventh year of its current Pavement Management Program (PMP). The primary goal of the PMP is to perform the proper pavement management (maintenance/rehabilitation) operation at the proper time to maximize the life of the pavement as cost-effectively as possible.

When streets are constructed or reconstructed using today's design standards, and when pavement management operations are proactively performed on those streets on a regular basis afterwards, at least 60-years of useful life is anticipated from new and reconstructed bituminous pavement sections.

Current bituminous pavement management operations include;

- Cracksealing – Protects existing pavement by preventing stormwater runoff from seeping through cracks in the pavement and joints between the pavement and concrete curb and gutter and utility castings, minimizing future damage due to wet subgrade soils, especially during freeze-thaw cycles. The City annually crackseals about 25 miles of bituminous pavement on its public street system.
- Overlays – Protects existing pavement similar to cracksealing, while also increasing the structural or load carrying capacity of the pavement. The City typically overlays up to 4 miles of pavement on its public street system annually.
- Reconstructs – Pavement reconstruction projects remove and replace severely damaged pavement with new pavement sections. Reconstruction projects may also include removal and replacement of damaged concrete curb and gutter on urban sections, or re-grading ditches and re-shouldering on rural sections. The City annually reclaims/reconstructs up to 2 miles of pavement on its public street system.

The City of Ramsey's current proactive pavement management schedule for improved public streets is generally as follows;

- Cracksealing - 3 years following construction, overlays or reconstruction, then every 7 years after.
- Overlays - 20 years after construction, overlays or reconstruction.
- Reconstructs - 60 years after construction or reconstruction.

The pavement management schedule for each street segment is adjusted based on actual pavement conditions. City staff annually reviews and rates the pavement condition of all public streets using the Pavement and Surface Evaluation Rating (PASER) system. PASER ratings range from 1 to 10, with 1 being a failed pavement section in total disrepair, and 10 being a new pavement section.

Figure 1 shows 2021 PASER ratings for all City streets.

Staff typically recommends reconstructing pavement sections with PASER ratings between 1 and 4. Overlays are typically recommended for pavement sections with PASER ratings of 5 and 6. Cracksealing is typically recommended for pavement sections with PASER ratings between 7 and 10.

By proactively performing these pavement management operations on a scheduled basis, the useful life of the pavement is maximized as cost-effectively as possible. If proactive maintenance operations are not applied, pavement sections will generally require reconstruction every 30 years, which adds considerable cost to a pavement management program.

Street Reconstruction Bubble

Between 1975 and 1985 approximately 40-percent of all City streets were constructed. At the time these streets were constructed their anticipated useful design life was 40-years, after which reconstruction would be required. These streets have all now either reached, or are nearing, the end of their useful lives. This means approximately 40-percent of City streets need to be reconstructed now or in the immediate future. And while it has generally been known for a decade or more that this “street reconstruction bubble” was approaching, it has become even more apparent this year that current Pavement Management Program funding levels need to be increased to acceptably maintain the condition of City streets.

Pavement Management Program Funding Needs

Staff has received a steady increase in calls in recent years from businesses and residents complaining about the poor condition of City streets and asking when the City plans to patch, overlay or reconstruct the streets serving their businesses and homes. Based on the increasing number of complaints received each year, on the fact that 40-percent of public streets are generally at the age that they need to be reconstructed, and considering that Public Works Staff struggles to adequately maintain the pavement on City streets, Staff is seeking a recommendation from the Public Works Committee to the City Council on how many more streets to reconstruct and/or overlay each year, over and above the amount of Pavement Management Program (PMP) projects identified in the 2022 – 2031 CIP.

Figure 2 shows all public streets proposed to be reconstructed between 2022 and 2031 as identified within the current 10-year CIP, which totals 25.38 miles. The figure also shows streets that currently qualify for reconstruction since they have PASER ratings of 4 or less, but are not yet identified in the CIP. These streets total 18.50 miles. Of these streets less than one mile are non-residential streets, and less than one-quarter mile are Municipal State Aid System routes, qualifying for use of MSA funds.

Figure 3 shows all public streets proposed to receive mill and overlay improvements between 2022 and 2031 as identified within the CIP, which totals 34.84 miles.

Figures 4 through 7 shows which City streets have PASER ratings of 5, 6, 7 and 8, which are the PASER ratings typically targeted for identifying future PMP projects within the 10-year CIP. PASER ratings for bituminous pavements decrease over time which allows Staff to determine specific street segments for future PMP projects within the 10-year CIP.

Expanding the PMP program to account for the increased immediate needs due to the current street reconstruction bubble the City is facing will require a significant increase in annual PMP funding. Currently, approximately \$2,750,000 of American Rescue Plan Act (ARPA) funds are available for additional street reconstruction and/or overlay projects in 2023. In the future, such funding may not be readily available so Staff is seeking direction from the Public Works Committee on how much additional funding should be allocated annually for PMP projects, if any.

Traditional funding sources for PMP projects include the general levy, bonds, special assessments, Municipal State Aid (MSA) funds, and/or franchise fees. Finance Director Diana Lund will be in attendance to address questions Committee members might have on these funding sources including availability, reliability, interest rates, fund balances, etc.

Timeframe:

Staff anticipates up to 60 minutes will be needed to present and discuss this case.

Observations/Alternatives:**Observations:**“Light” Street Reconstruction Projects

An option the Committee may wish to consider would be to temporarily complete more PMP projects as “light” street reconstruction projects. This would involve reconstructing streets by reclaiming the existing bituminous pavement plus an inch or two of underlying aggregate base, leaving all or most of the reclaim pavement on site as a thicker aggregate base section, then paving a single 2-inch lift of bituminous pavement over the compacted reclaim material. This would generally provide a pavement section similar or slightly better than the pavement sections constructed up to the early 2000’s, which generally met a 5-ton pavement design strength, compared to today’s pavement sections constructed with 4-inches of aggregate base and 3½-inches of bituminous pavement that generally meet a 7-ton design strength.

Light street reconstruction projects are estimated to cost about 75-percent of a standard street reconstruction project utilizing pavement reclamation, which involves reclaiming the existing pavement plus an inch or two of underlying aggregate base, hauling about half the reclaim material off site, then paving two lifts of bituminous pavement totaling 3½-inches on top of the remaining compacted reclaim material. This design generally meets a 7-ton pavement design strength.

Utilizing light street reconstruction projects would allow the City to reconstruct about 25-percent more streets at the same cost as a standard street reconstruction project. However, the anticipated design life of these streets would be between 25 and 40 years instead of 60 years with a standard pavement reclamation project. In addition, pavement design strength would be reduced which may cause issues during spring load restrictions requiring increased enforcement actions by Ramsey PD and other Staff.

Staff would support this option if the Committee feels the benefit of completing 25-percent more street reconstruction projects annually will outweigh the costs and other potential local impacts due to achieving a design life that is two-thirds or less than that of a standard street reconstruction project, and due to a lesser pavement design strength.

Advancing Street Reconstructions to Overlay Improvements

Staff also explored whether streets identified as street reconstruction projects in the later years of the 10-year CIP, which may have PASER ratings of 5, 6 or higher, may be suitable for pavement overlay improvements in earlier years to extend the life of the pavement enough to allow it to be reconstructed after the “street reconstruction bubble” passes to smooth out the next street reconstruction bubble.

Attached are four figures showing streets with PASER ratings between 5 and 8, all of which could potentially be identified within the 10-year CIP as street reconstruction projects closer to the end of the 10-year period based on projected pavement decay curves.

Staff reviewed the 2022 – 2031 CIP to identify streets with PASER ratings between 5 and 8 that might meet this qualification. Staff only found one street segment that might meet these criteria and provide enough benefit to outweigh the additional cost due to overlaying a pavement section that is past the point of achieving 15 or more years of pavement life following the overlay improvements. Staff therefore does not believe there is enough value associated with this option to pursue it further.

Alternatives:

Alternative #1 – Motion recommending City Council approval to temporarily increase Pavement Management Program funding to address immediate street reconstruction bubble needs in an annual amount of \$ _____.

Alternative #2 – Motion of other.

Funding Source:

To be determined based on discussions.

Recommendation:

Staff recommends temporarily increasing annual PMP funding to mitigate immediate street reconstruction bubble needs and minimize annual maintenance costs in as few years as practical.

It is important to consider that the longer the bubble continues, the greater the impacts related to street maintenance including equipment and material costs, professional services, and potentially staffing. On the flip side, the higher the annual PMP funding, the greater the impacts related to engineering costs including engineering staff and potentially professional services. These costs must therefore be considered as well. More information on these costs will be provided during the meeting.

Action:

Motion recommending City Council approval to temporarily increase Pavement Management Program funding to address immediate street reconstruction bubble needs in an annual amount of \$ _____.

Attachments

[Figure 1 2021 PASER Map](#)

[Figure 2 Street Recon Needs](#)

[Figure 3 2022-31 Overlay Projects](#)

[Figure 4 PASER5](#)

[Figure 5 PASER6](#)

[Figure 6 PASER7](#)

[Figure 7 PASER8](#)

[Asphalt Method Patching and Costs](#)

Form Review

Inbox	Reviewed By	Date
Grant Riemer	Grant Riemer	06/16/2022 03:26 PM
Brian Hagen	Brian Hagen	06/16/2022 04:03 PM
Form Started By: Bruce Westby		Started On: 06/07/2022 09:17 AM
Final Approval Date: 06/16/2022		

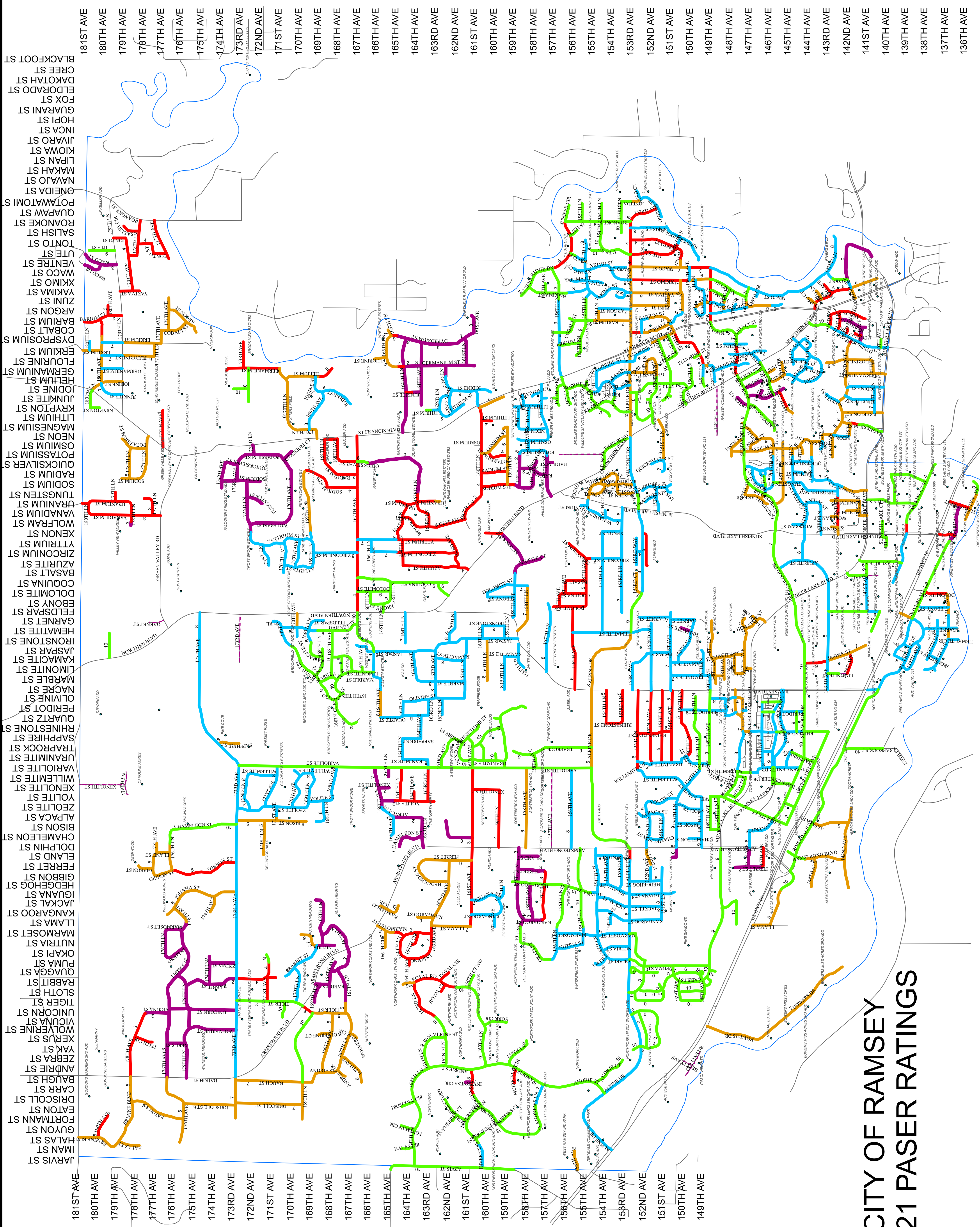


CITY STREETS

Mileage Summary	Length
9 - 10	45.77 mi.
7 - 8	58.76 mi.
5 - 6	33.57 mi.
3 - 4	26.86 mi.
0 - 2	16.72 mi.
Dirt	2.59 mi.
Total	184.03 mi.

Legend

- subdivisions_pts
- Paser 9 - 10
- Paser 7 - 8
- Paser 5 - 6
- Paser 3 - 4
- Paser 0 - 2
- Dirt Streets
- MRCC_Centerlines
- MuniBndry



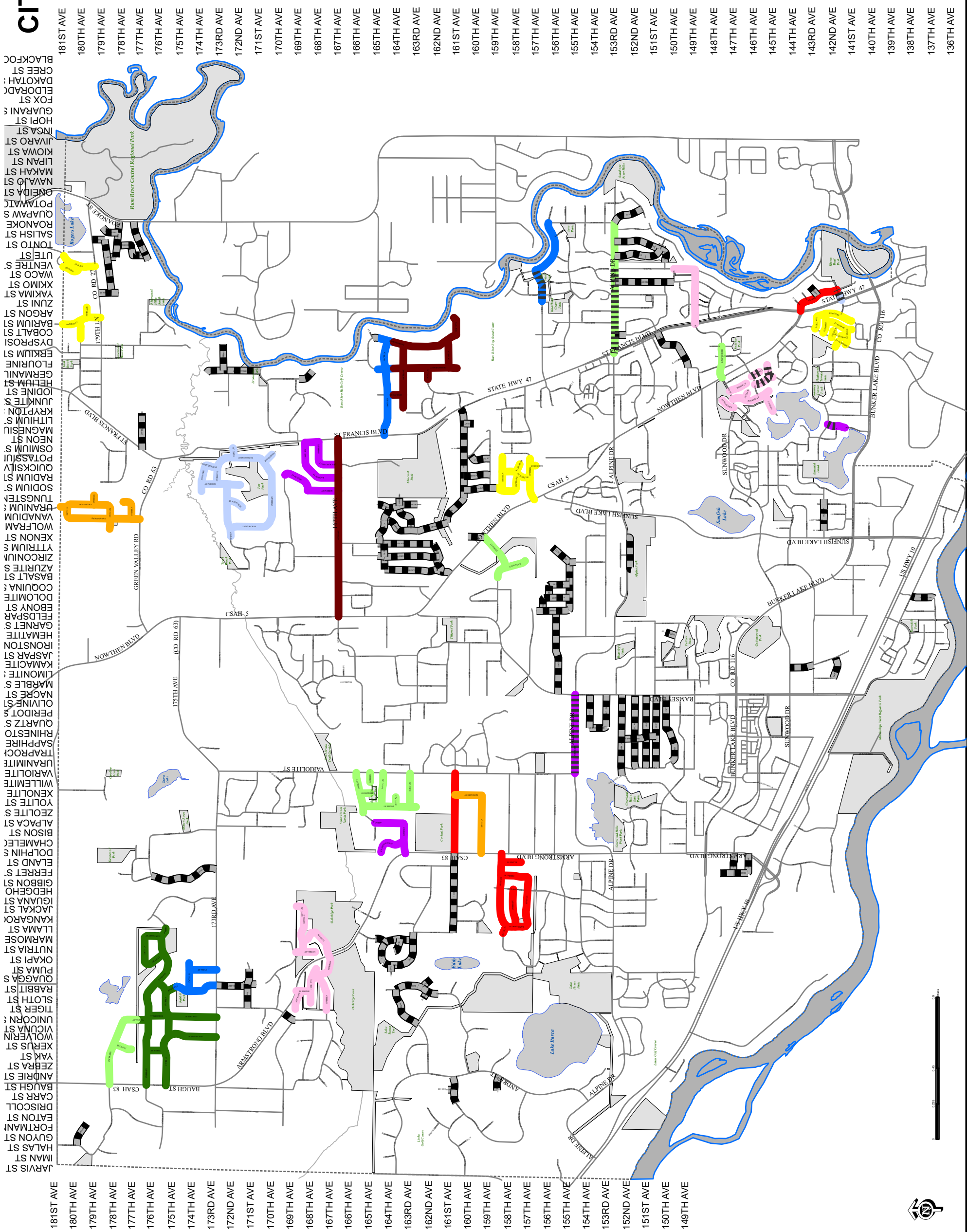
**CITY OF RAMSEY
2021 PASER RATINGS**

CITY OF RAMSEY

Pavement Management Program Street Reconstruction Needs

LEGEND

- 2021 PASER 4 OR LESS**
- CURRENT RECON NEED
- 2022 - 31 CIP, PROJECT YEAR**
- 2031, RC
- 2030, RC
- 2029, RC
- 2028, RC
- 2027, RC
- 2026, RC
- 2025, RC
- 2024, RC
- 2023, RC
- 2022, RC
- CIP Recon Paser > 4
- Road_Centerlines
- MuniBndry
- Parks
- Rivers
- Lakes_Ponds
- Creeks



181ST AVE
180TH AVE
179TH AVE
178TH AVE
177TH AVE
176TH AVE
175TH AVE
174TH AVE
173RD AVE
172ND AVE
171ST AVE
170TH AVE
169TH AVE
168TH AVE
167TH AVE
166TH AVE
165TH AVE
164TH AVE
163RD AVE
162ND AVE
161ST AVE
160TH AVE
159TH AVE
158TH AVE
157TH AVE
156TH AVE
155TH AVE
154TH AVE
153RD AVE
152ND AVE
151ST AVE
150TH AVE
149TH AVE

JARVIS ST
IMAN ST
HALAS ST
GUYON ST
FORTMAN
EATON ST
DRISCOLL
CARR ST
BAUGH ST
ANDRIE ST
ZERRA ST
YAK ST
XERUS ST
VICUNA ST
UNICORN
TIGER ST
SLOTH ST
RABBIT ST
QUAGGA ST
PUMA ST
OKAPI ST
NUTRIA ST
MARMOSE
LLAMA ST
KANGAROO
JACKAL ST
IGUANA ST
HEDGEHOG
GIBBON ST
FERRRET ST
ELAND ST
DOLPHIN ST
CHAMELEON
BISON ST
ALPACA ST
ZEOLITE ST
YOLITE ST
XENOLITE
WILLEMITE
VAROLITE
URANMITE
TRAPROCH
SAPPHIRE
RHINESTO
QUARTZ ST
PERIDOT ST
OLIVINE ST
MAGRE ST
MARBLE ST
LIMONITE
KAMACITE
JASPAR ST
IRONSTON
HEMATITE
FELDSPAR
EBONY ST
DOLOMITE
COQUINA
BASALT ST
AZURITE ST
ZIRCONIUM
YTRIUM ST
XENON ST
WOLFRAM
VANADIUM
URANIUM
TUNGSTEN
SODIUM ST
QUICKSILVER
POTASSIUM
OSMIUM ST
NEON ST
MAGNESIUM
LITHIUM ST
KRYPTON
JUNKITE ST
IODINE ST
HELIUM ST
GERMANIUM
FLUORINE
ERKLIUM ST
DYSPROSIUM
COBALT ST
BARIUM ST
ARGON ST
ZUNI ST
YAKIMA ST
XKIMO ST
WACO ST
VENTRE ST
UTEST
TONTON ST
SALISH ST
ROANOKE
QUAPAW ST
POTAWATTI
OMIDA ST
NAVAHO ST
MAKASH ST
LIPAN ST
KIOWA ST
JIVARO ST
INCA ST
HOP ST
GUARANI ST
FOX ST
ELDORADO
DAKOTAH ST
CREE ST
BLACKFOOT



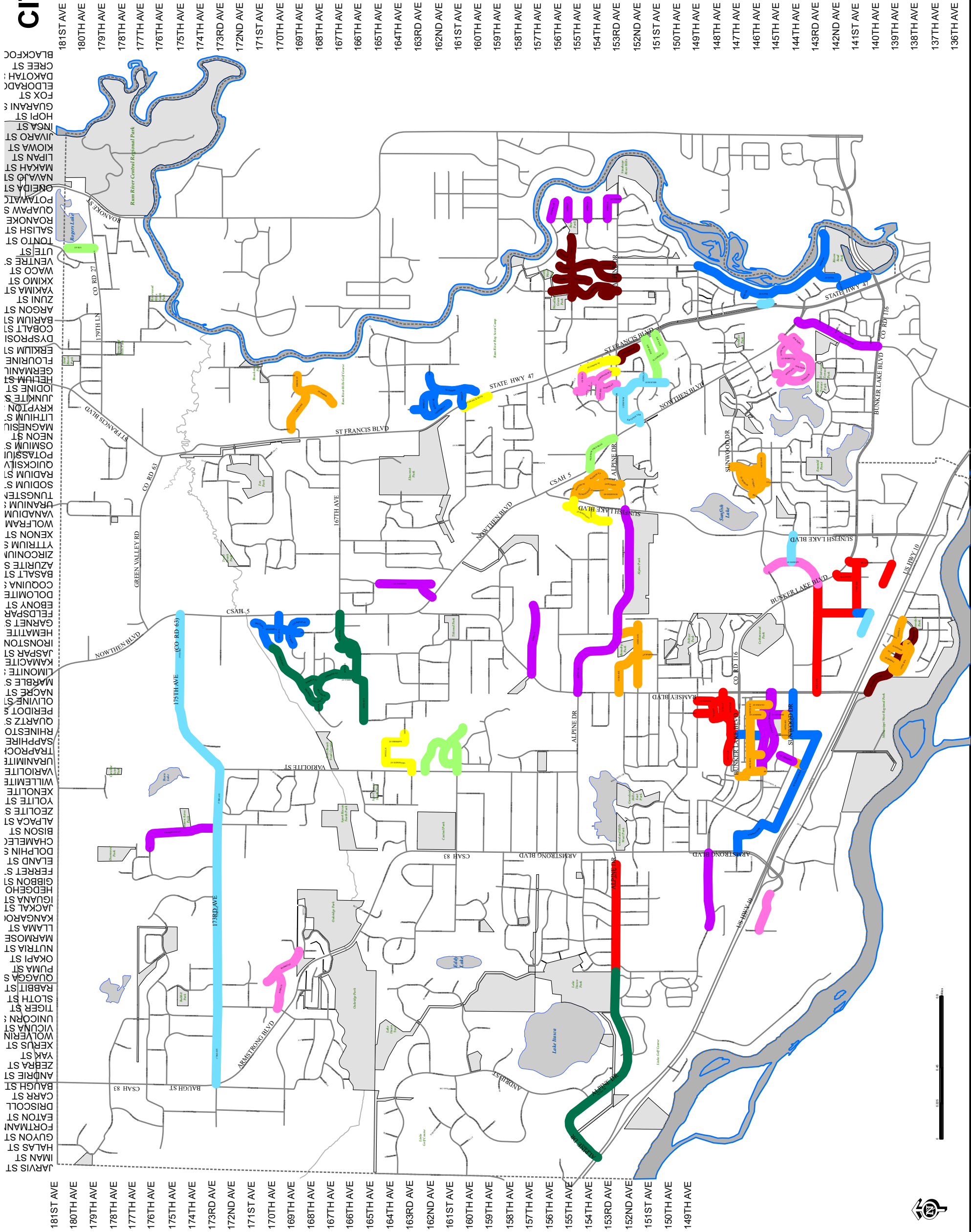
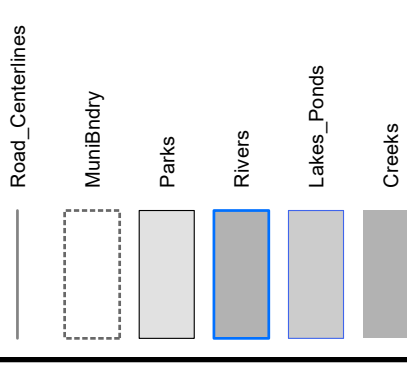
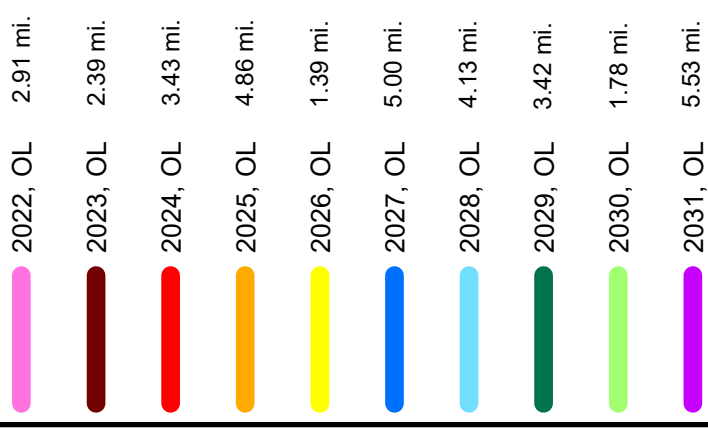
CITY OF RAMSEY

Pavement Management Program Overlay Improvements

LEGEND

2022 - 31 CIP, PROJECT YEAR

<all other values>



0 0.25 0.5 1 Miles

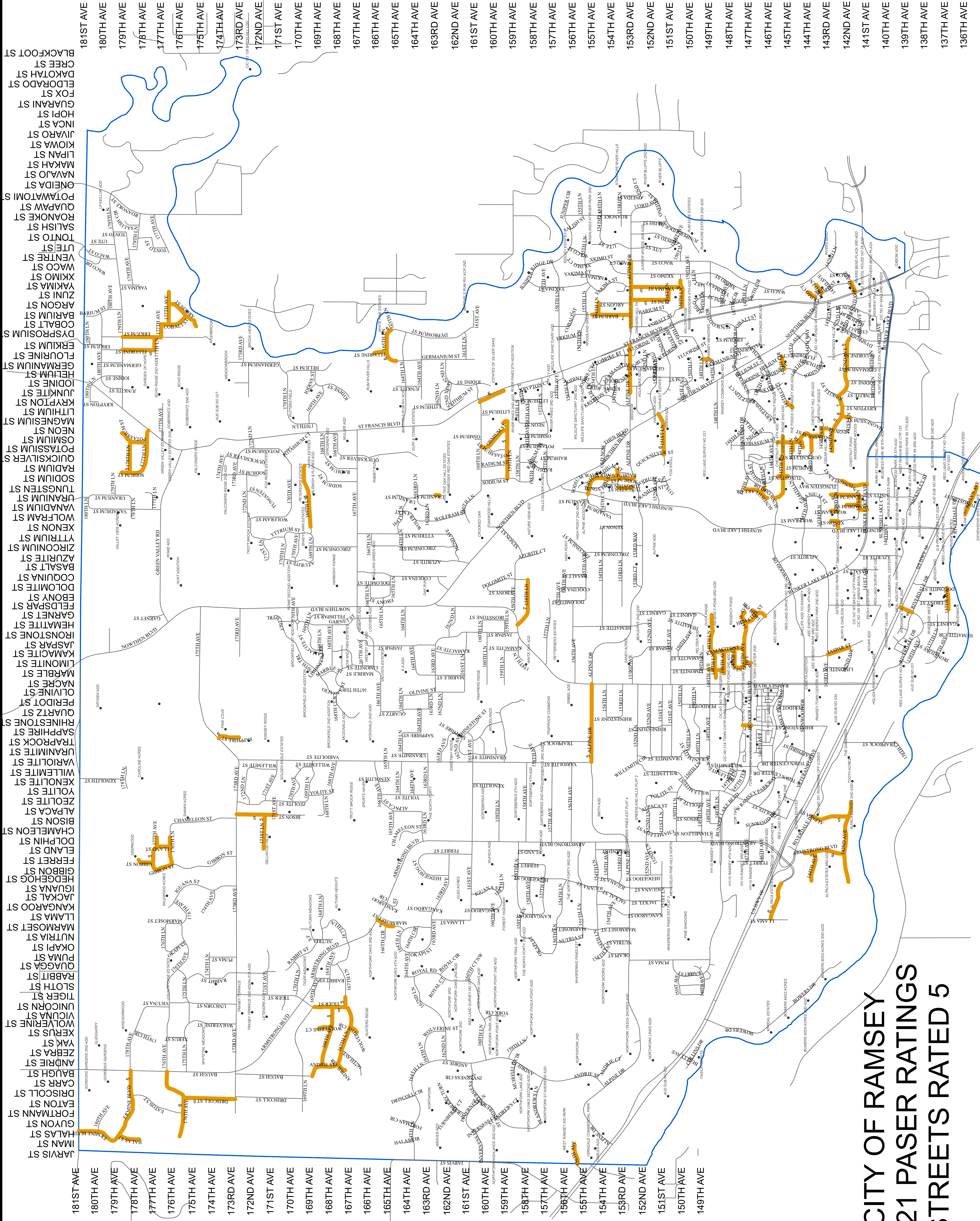


CITY STREETS

Mileage Summary	Length
Paser Rtg 9 - 10	45.77 mi.
7 - 8	58.76 mi.
5 - 6	33.57 mi.
3 - 4	26.86 mi.
0 - 2	16.72 mi.
Dirt	2.59 mi.
Total	184.03 mi.

Legend

- Paser 5
- subdivisions_pts
- MRCC_Centerlines
- subdivisions
- MuniBndry



**CITY OF RAMSEY
2021 PASER RATINGS
STREETS RATED 5**

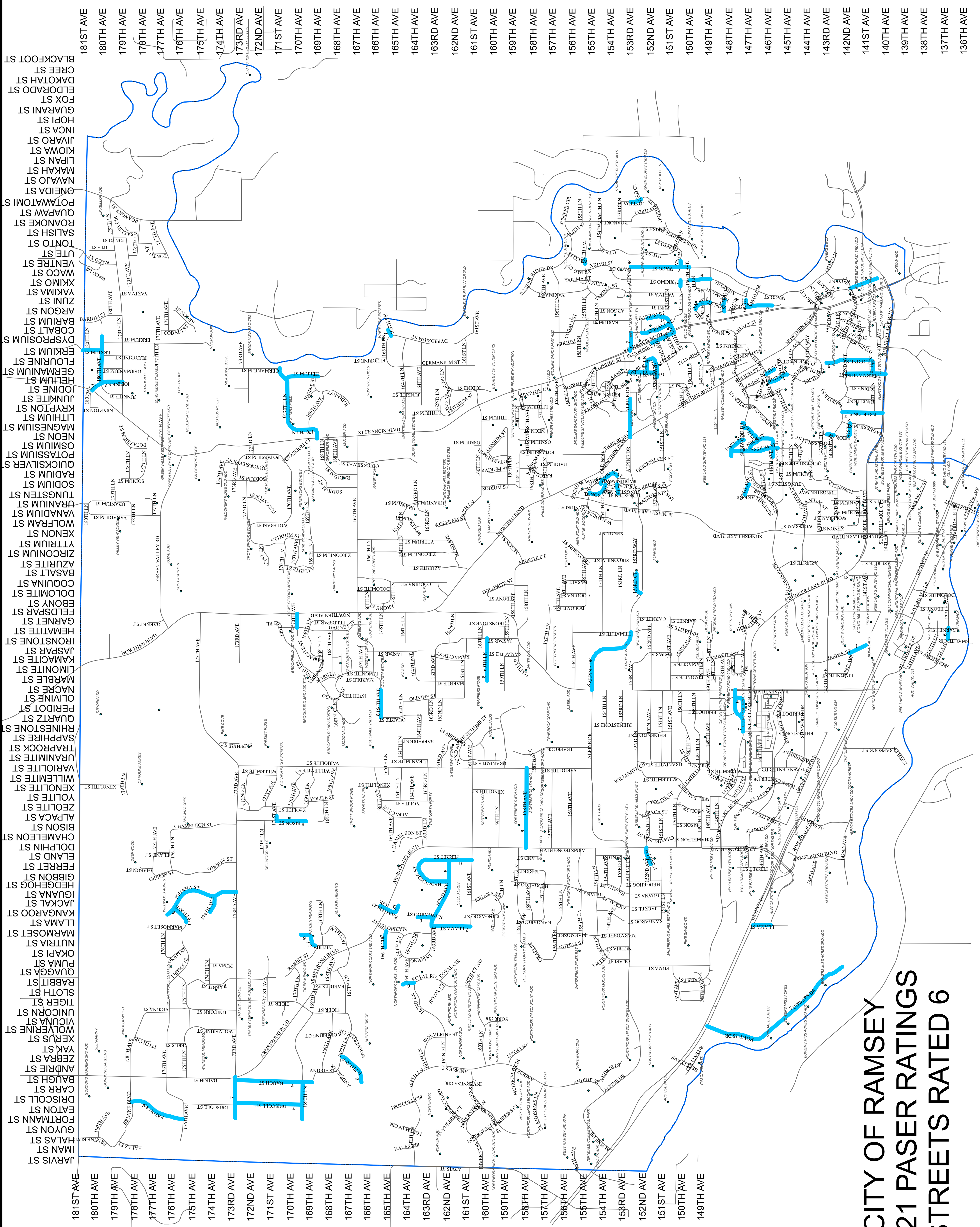


CITY STREETS

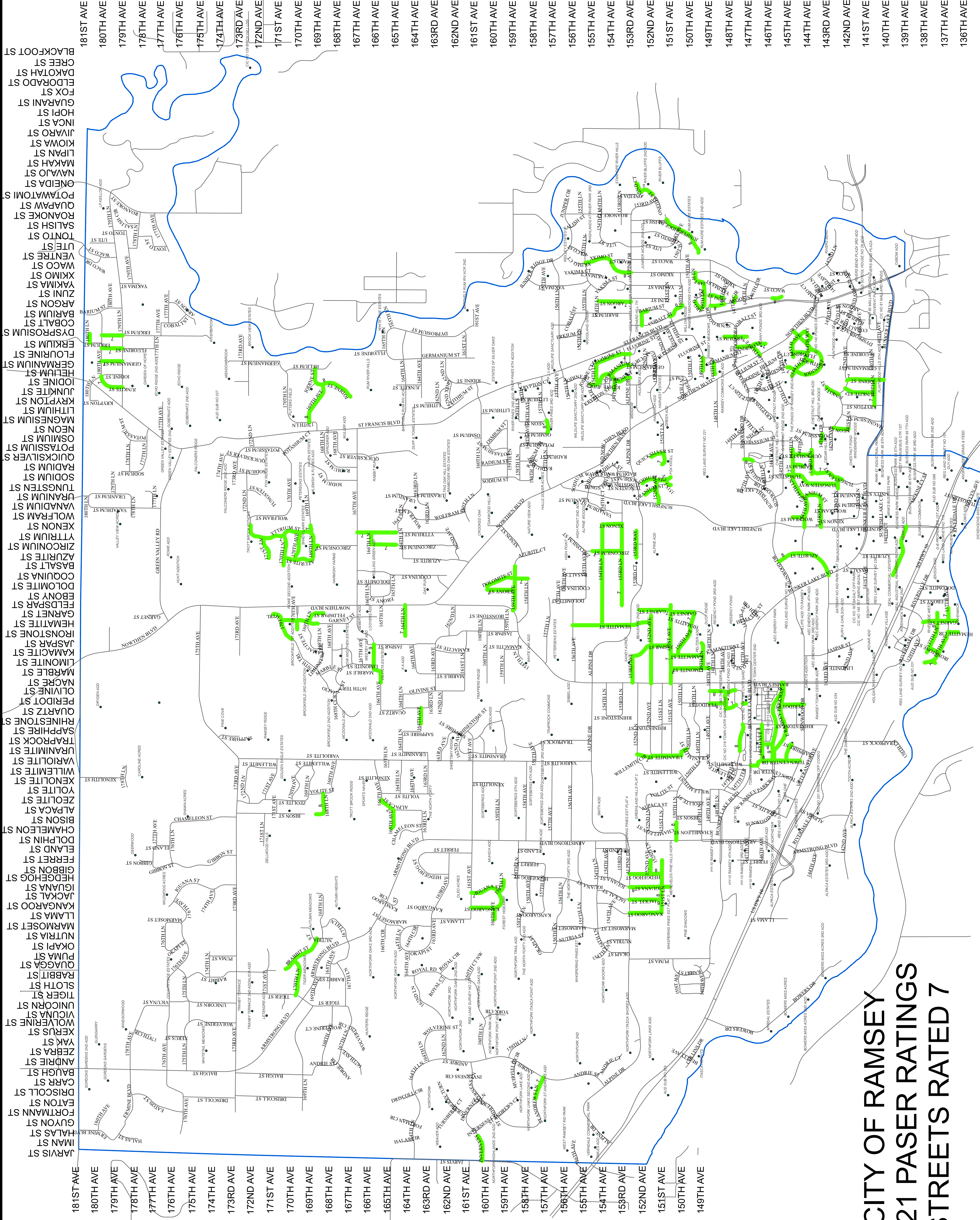
Mileage Summary	Length
9 - 10	45.77 mi.
7 - 8	58.76 mi.
5 - 6	33.57 mi.
3 - 4	26.86 mi.
0 - 2	16.72 mi.
Dirt	2.59 mi.
Total	184.03 mi.

Legend

- Paser 6 15.11 mi.
- subdivisions_pts
- MRCC_Centerlines
- MuniBndry



**CITY OF RAMSEY
2021 PASER RATINGS
STREETS RATED 6**



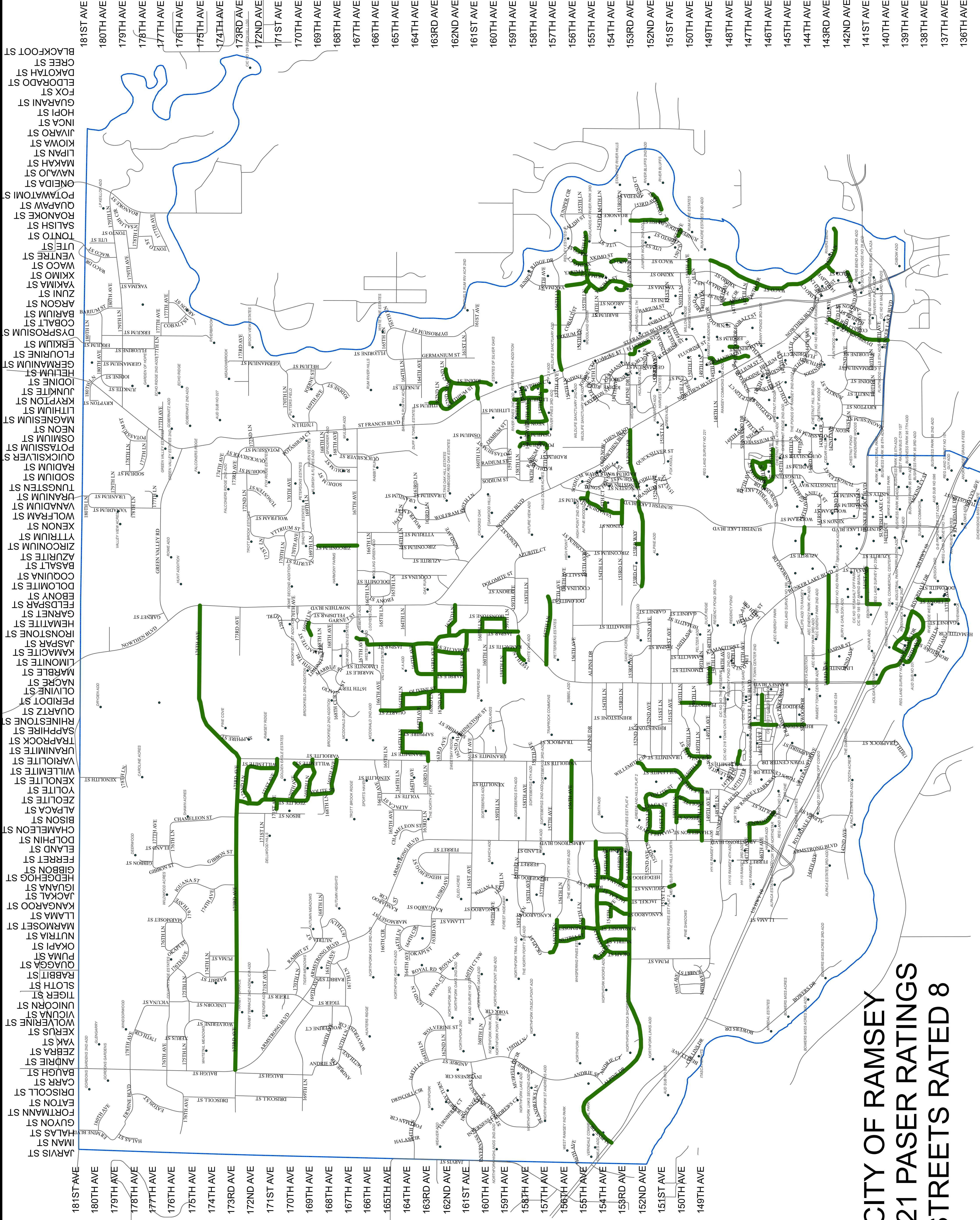
Mileage Summary	Length
9 - 10	45.77 mi.
7 - 8	58.76 mi.
5 - 6	33.57 mi.
3 - 4	26.86 mi.
0 - 2	16.72 mi.
Dirt	2.59 mi.
Total	184.03 mi.

- CITY STREETS**
- 181ST AVE
 - 180TH AVE
 - 179TH AVE
 - 178TH AVE
 - 177TH AVE
 - 176TH AVE
 - 175TH AVE
 - 174TH AVE
 - 173RD AVE
 - 172ND AVE
 - 171ST AVE
 - 170TH AVE
 - 169TH AVE
 - 168TH AVE
 - 167TH AVE
 - 166TH AVE
 - 165TH AVE
 - 164TH AVE
 - 163RD AVE
 - 162ND AVE
 - 161ST AVE
 - 160TH AVE
 - 159TH AVE
 - 158TH AVE
 - 157TH AVE
 - 156TH AVE
 - 155TH AVE
 - 154TH AVE
 - 153RD AVE
 - 152ND AVE
 - 151ST AVE
 - 150TH AVE
 - 149TH AVE
 - 148TH AVE
 - 147TH AVE
 - 146TH AVE
 - 145TH AVE
 - 144TH AVE
 - 143RD AVE
 - 142ND AVE
 - 141ST AVE
 - 140TH AVE
 - 139TH AVE
 - 138TH AVE
 - 137TH AVE
 - 136TH AVE

Legend

- Paser 7
- subdivisions_pts
- MRCC_Centerlines
- MuniBndry

CITY OF RAMSEY 2021 PASER RATINGS STREETS RATED 7



CITY STREETS

Mileage Summary	Length
9 - 10	45.77 mi.
7 - 8	58.76 mi.
5 - 6	33.57 mi.
3 - 4	26.86 mi.
0 - 2	16.72 mi.
Dirt	2.59 mi.
Total	184.03 mi.

Legend

- Paser 8
- Paser 7
- Paser 6
- Paser 5
- subdivisions_pts
- MRCC_Centerlines
- MuniBdry

CITY OF RAMSEY 2021 PASER RATINGS STREETS RATED 8

Temporary Patching (Pothole Filling) 161st Ave

Equipment Used	Location	Cost / 8 hrs
1-Ton Truck	\$20.57	\$164.56
Asphalt Tamper Trailer	\$10.37	\$82.96
	\$12.81	\$102.48
Labor Full Time 2.00	\$124.20	\$993.60
Seasonal 1.00	\$15.00	\$120.00
Asphalt Per Ton 4 Tons@68.85/Ton		\$275.40
Total/hr	\$187.90	\$1739.00 or \$434.75/ton

Permanent Patching (Mill/Overlay) Xkimo St N. of Alpine

Equipment Used in Removal	Location	Cost/8hrs
Tandem Axle Truck	\$65.75	\$524.00
24 Ton Trailer	\$16.99	\$135.92
Skid Steers 2.00	\$62.32	\$498.56
Edge Mill	\$15.48	\$123.84
Broom	\$7.37	\$58.96
Labor Full Time 2.00	\$124.20	\$993.60
Seasonal 1.00	\$15.00	\$120.00
Asphalt Per Ton \$68.85		\$120.00
Total Equipment Cost		\$2,454.88

Equipment Used in Repair	Location	Cost / 24 hrs
1-Ton Truck	\$20.57	\$493.68
Asphalt Roller Trailer	\$15.32	\$367.68
	\$12.81	\$307.44
Labor Full Time 2.00	\$124.20	\$2,980.80
Seasonal 1.00	\$15.00	\$360.00
Asphalt Per Ton 28 Tons@\$68.85/Ton		\$1,927.80
Total/hr	\$187.90	\$6,437.40
Total/24 hrs	Total Project Cost	\$8892.28 or \$317.58/ton

Spray patching-Contractor Various Locations \$403.88/ Ton

**PUBLIC WORKS COMMITTEE
CITY OF RAMSEY
ANOKA COUNTY
STATE OF MINNESOTA**

The Public Works Committee conducted a regular meeting on Tuesday, June 21, 2022, at the Ramsey Municipal Center, 7550 Sunwood Drive NW, Ramsey, Minnesota.

Members Present: Chairperson Chris Riley
 Councilmember Debra Musgrove
 Councilmember Matt Woestehoff

Also Present: Public Works Superintendent Grant Riemer
 City Engineer Bruce Westby
 Civil Engineer II Joe Feriancek
 Finance Director Diana Lund
 Community Development Director/Deputy City Admin Brian Hagen

1. CALL TO ORDER

Chairperson Riley called the regular meeting of the Public Works Committee to order at 5:30 p.m.

2. CITIZEN INPUT

There was none.

3. APPROVE AGENDA

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to approve the agenda, as presented.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove.
Voting No: None.

4. APPROVE MINUTES

4.01: Approve May 17, 2022, Meeting Minutes

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to approve the following minutes:

Regular Meeting Minutes dated May 17, 2022

Further discussion: Councilmember Musgrove noted on page nine, paragraph seven, it should state, "...indicates ~~they~~ we..."

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove.
Voting No: None.

5. COMMITTEE BUSINESS

City Engineer Westby suggested first considering case 5.02 as a resident is not yet present for case 5.01.

5.02: Review Bicycle and Pedestrian Facilities as Part of the 161st Avenue Street Reconstruction

Civil Engineer II Feriancek reviewed the staff report and stated that staff recommends alternative one, reconstructing 161st Avenue as a minimum width two lane road with a six-foot boulevard and ten-foot bituminous trail on the north side.

City Engineer Westby referenced an email he received from Councilmember Woestehoff who asked about running a trail between the fields and PACT. He stated that staff did look at that option but that would place the trail within the foul area of the ball field. He commented on the high cost to move fields. He stated that staff could review that option in more detail, but it may interfere with field use and rental. He commented that this is an MSA road, therefore they are limited in the options for design. He stated that the City does have the ability to change its MSA routes, if desired, but noted that it a lengthy process as well and it would still most likely make sense to widen the road.

Councilmember Woestehoff asked if PACT could be asked to have an easement and put the trail on their property as it would provide mutual benefit. He commented that the neighborhood does not want to see loss of mature trees and it would also change the look of Central Park dramatically. He stated that he would not be in favor of the bike lane as he believed people will most likely park in that lane.

Civil Engineer II Feriancek stated that the current plan has a ten-foot gap between the property line and parking lot.

Chairperson Riley stated that is an option he would be interested in finding out more about. He stated that of the options given, option three would seem to be the best fit for safety and to lose the minimum number of trees.

Councilmember Musgrove stated that she agrees that tree removal should be avoided to the extent possible. She agreed that removing a number of trees would impact the character of the park and therefore would like to look at the possibility of another trail placement that could avoid more tree loss. She stated that she does appreciate the staff time and thought in developing these creative ideas for trails.

Civil Engineer II Feriancek confirmed the consensus of the Committee to work with the developer and try to keep the trail north, staying out of the playing fields.

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to direct staff to further investigate option three as well as alternative to negotiate with PACT for a ten-foot trail on the western boundary to the fields.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

5.01: Consider Recommendation to City Council Authorizing Preparation of Plans and Specifications for 2022 Argon Street Drainage Improvements

City Engineer Westby reviewed the staff report and recommendation to recommend City Council authorization to prepare plans and specifications for 2022 Argon Street Drainage Improvements.

Chairperson Riley referenced the replacement of the septic system that was mentioned and asked if there was flooding before that replacement occurred.

Luke Buchholz, 15407 Argon Street, replied that he was not aware of flooding before the previous owner replaced the septic system.

Councilmember Woestehoff asked the pavement rating for Argon and when the road is scheduled for work next.

Public Works Superintendent Riemer replied that he believed the road had a rating of five or six.

Councilmember Woestehoff asked if the improvement could be delayed until work is done on the road. He stated that perhaps if a pavement management project is planned at a future time, the improvement could become part of that project and be budgeted for. He commented that he would have a hard time developing plans and specifications and spending \$500,000 for something that only impacts four homes.

Chairperson Riley noted that the next road improvement would be an overlay, not a reconstruction.

City Engineer Westby replied that the resident has had water in their basement at least twice now and the rain events are becoming more intense each year which will lead to further flooding.

Councilmember Woestehoff stated that nothing in the case makes this seem like this was caused by the City. He stated that when he lived in Richfield his basement flooded on multiple occasions and he did not call the City to regrade his yard. He stated that he would not have a problem assisting with plans and specifications but believed there are better ways to spend \$500,000.

Mr. Buchholz stated that he did not think going to the south with a pipe would be feasible because of the grade. He commented that all the water already goes to the west. He stated that the City already did a regrading once, but it was not done correctly. He believed a proper swale would have provided a solution and suggested curving the swale around the septic. He commented that the culvert under Argon Street was not properly sized for all the water that it handles. He commented that after the last overlay, the road surface is almost at the same level as the curb, so

half the water is running off the roads into the driveways and ditches. He believed that regrading a better swale and resizing the culvert would provide a solution. He believed the pond to the west was adequately sized.

Chairperson Riley commented that again it seems that the replacement of the septic system was the cause of these issues.

City Engineer Westby replied that typically when a new system is installed it is put in a new location and perhaps that was part of the issue. He stated that staff could look to see what perpetuated the drainage issue, look at potential costs for regrading, and potential impacts.

Chairperson Riley recognized the hesitancy of the Committee to spend \$500,000 to fix something that was caused by replacement of a septic system.

Councilmember Musgrove asked if this would be a situation where a rain garden could help.

City Engineer Westby replied that he is unsure of the soil types in that area or level of the water table. He commented that with the wetland complex to the west he would guess the water table could be high. He identified other properties that have reached out to the City with complaints on this topic. He commented that when the original property owner put the septic system in, he did have problems with water coming into his basement.

Mr. Buchholz commented that per the MS4 Permit, the City is not allowed to send water from the right-of-way onto private land. He commented that if there is not drainage and utility easement through Mr. Ridgeway's property, drainage cannot be sent into that area.

City Engineer Westby replied that there is an issue, and Staff's proposed design would prevent that from occurring and prevent the City from having to purchase an easement. He explained that when the City was incorporated, it incorporated the existing drainage systems and issues.

Chairperson Riley commented that he is shocked at the cost.

Councilmember Woestehoff referenced property four in the diagram which he believed does have an easement. He asked if the issue is that the easements are not in the right place and in order to use that easement there would need to be significant tree removal.

City Engineer Westby stated that in order to direct water to that location, water would need to be rerouted which would include regrading.

Councilmember Woestehoff commented that there is an easement between properties seven and four.

City Engineer Westby replied that there is easement but that is not where the drainage wants to go. He stated that if they were going to perpetuate drainage through the yard, an easement would need to be purchased.

Councilmember Woestehoff stated that it is nice that staff has been helpful even though this does not appear to be the fault of the City at any time.

City Engineer Westby confirmed the consensus of the Committee, directing staff to pursue a less costly option.

5.03: Consider Recommending City Council Approving Plans and Specifications and Authorizing Advertisement for Bids for Autumn Heights Street Reconstructions, Improvement Project #22-02

Civil Engineer II Feriancek reviewed the staff report and recommendation to recommend that the City Council approve plans and specifications and authorize advertisement for bids for Autumn Heights Street Reconstructions, Improvement Project #22-02. Alternatively, the Committee could recommend revising the plans to include the “reclamation light” design at an estimated 43 percent cost savings, however, these streets would then have a different design than all other recently reconstructed streets in Ramsey which would provide a lesser pavement design strength and shorter design life.

Councilmember Musgrove asked for clarification on the eight feet of existing driveways mentioned in the report. She also asked whether there is a need for curb and gutter or whether that is just needed on one section.

Civil Engineer II Feriancek replied that 167th west of Armstrong goes uphill and turns left. He stated that the drainage along the hill goes to the ditches as there are no swales. He stated that curb and gutter would be added to that section to manage that drainage and keep soil from spilling into the road. He stated that the eight feet of driveways provides enough space to tie into the new pavement. He stated that over time parts of the road sink or raise and therefore space is needed to recreate the profile, which will cause some driveways to be slightly adjusted as well.

Councilmember Musgrove asked if the curb and gutter is only in that section.

Civil Engineer II Feriancek confirmed that the curb and gutter is only along that portion of 167th.

Councilmember Woestehoff asked how a reclamation and overlay would differ.

Civil Engineer II Feriancek replied that an overlay would mill out the top layer, but reflective cracking still occurs. He stated that there is a lot of alligator cracking on the road, which would cause the overlay to break up. He stated that a reclaim will mill off additional material to create new class five material.

Councilmember Woestehoff asked if they could do that without doing a full depth reclamation, specifically asking for more explanation on the reclamation light option.

Civil Engineer II Feriancek stated that the reclaim light would mill off the top and a little into the gravel.

City Engineer Westby replied that the reclaim is still the same in both the full depth and light options. He explained that in a full depth reclamation they remove some of the reclaim and put two lifts of pavement, whereas the light version removes less reclaim and puts one layer of pavement on top.

Chairperson Riley referenced the cost difference, noting that the light version is less than half the cost.

Civil Engineer II Feriancek stated that the reduced cost does not include the other improvements proposed, noting that the grade would not be adjusted and therefore it may not be as smooth and it would also remove the curb and gutter, culvert replacement, and other proposed improvements for the project.

City Engineer Westby replied that the road would be a touch better than the originally constructed road. He explained that the City currently constructs roads to a seven-ton design load, whereas this would only be rated for perhaps five tons. He stated that 60 years is the typical lifespan for a new road, whereas this would be maybe between 25 and 40 years.

Councilmember Woestehoff stated that doing these types of improvements could help to solve the bubble situation and spread some repairs over time and the lower cost would help to spread needed repairs to more areas.

Councilmember Musgrove asked if this project was on the 2022 CIP.

City Engineer Westby confirmed that this road was planned for 2022.

Councilmember Musgrove stated that she could support the light version if there were a plan for how many roads could be placed into that category. She stated that she also has a desire to see the road project move forward as planned.

Chairperson Riley asked if this neighborhood would be a good candidate for the light option. He asked all residential neighborhoods would be equally available for the light option or whether it would not be recommended for some roads.

City Engineer Westby replied that it would depend upon the subgrade soils. He stated that it sounds like there were some poor subgrade sections in this area where soil corrections were going to be done and if that does not happen the road would fail faster. He stated that he would target the light option on streets that have better subgrade sections.

Public Works Superintendent Riemer commented that the east side of the project basically only sees traffic from the people living there while the west side has a fair amount of cut-through traffic.

Civil Engineer II Feriancek commented that the subgrade soils on the east side are worse and the subgrade on the west side are better, but people do cut through the west side to get to other neighborhoods.

Councilmember Woestehoff stated that because this is rural residential with less density it would seem like a prime candidate for the light reclaim option. He asked if there would be a hybrid option.

Chairperson Riley asked for details on the half cul-de-sac proposed.

Civil Engineer II Feriancek replied that would allow turn around space for emergency vehicles. He did not believe residents would provide additional right-of-way for a full cul-de-sac as it would significantly impact the resident to the north and take most of his driveway.

Chairperson Riley commented that this was planned for last year and is now planned for this year but is just being brought forward now which means it may not be completed. He asked why this did not come forward earlier.

City Engineer Westby replied that this was the last project and staff has had a heavy workload.

Councilmember Musgrove asked staff for details on a potential hybrid option and whether the reclaim light would be proposed for the west or east portion. She also asked the impact of doing a reclaim light on the eastern portion.

Civil Engineer II Feriancek replied that if the subgrade soils on the east are not corrected, that would fail faster. He commented that perhaps 20 years could be gotten, but maybe not.

Chairperson Riley stated that the Committee would be interested in hearing which projects would be feasible for reclaim light and acknowledged that if there are poor soils those roads would not be good for the reclaim light option.

City Engineer Westby commented that staff will need to track where reclaim light is done to ensure the proper maintenance schedule is followed in the future.

Councilmember Woestehoff asked if it would make sense to split the project into two projects, full reclaim on the east side and reclaim light on the west side, for tracking purposes. He believed that the light reclaim will be a viable option going forward for some roads in order to complete more improvements at a lesser cost.

City Engineer Westby stated that staff could figure out how to track this and would prefer to keep the entire project together.

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to recommend City Council approval of plans and specifications and authorizing advertisement for bids for Autumn Heights Street Reconstructions, Improvement Project #22-02 with the assumption that the eastern portion will be full-depth reclaim and the western portion will be reclaim light.

Further discussion: Councilmember Musgrove asked where the cul-de-sac is located and whether that would still be constructed. Civil Engineer II Feriancek replied that while the cul-de-sac is on the western portion, that portion could be full-depth in order to complete that improvement.

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove.
Voting No: None.

5.04: Consider Recommendation to City Council to Temporarily Increase Funding for Pavement Management Program

City Engineer Westby reviewed the staff report and recommendation to temporarily increase annual PMP funding to mitigate immediate street reconstruction bubble needs and minimize annual maintenance costs in as few years as practical. It is important to consider that the longer the bubble continues, the greater the impacts related to street maintenance including equipment and material cost, professional services, and potentially staffing. On the flip side, the higher the annual PMP funding, the greater the impacts related to engineering costs including engineering staff and potential professional services. These costs must therefore be considered as well.

Chairperson Riley asked if the reclaim light is done, would that preclude a mill and overlay in the future.

City Engineer Westby confirmed that generally that would be true as there would not be enough pavement for that option. He commented that an overlay could be done to lengthen the lifespan, but a mill and overlay would not be an option.

Civil Engineer II Feriancek explained the differences in the proposed costs of the last case between full-depth reclaim and reclaim light.

City Engineer Westby replied that staff will provide better cost estimates at the next meeting.

Councilmember Woestehoff stated that he likes getting 25 percent more roads done. He stated that as much as he does not love the reclaim light option, it does help to spread the improvements out better over time.

Chairperson Riley confirmed the consensus of the Committee that the available ARPA funds mentioned should be spent on road projects.

Councilmember Woestehoff asked if the police body cams were still funded using ARPA dollars.

Finance Director Lund replied was excluded from the numbers and noted the estimate of the police cameras was about \$268,000 in total for the entire system.

Councilmember Musgrove asked if the ARPA funds have to be used within a certain period of time.

Finance Director Lund stated that the first half of funds were received in 2021 and the next half will be received in 2022. She stated that contracts have to be in place by December 2023 and the funds have to be spent one year after that date.

Councilmember Musgrove referenced the road rating which helps to categorize the improvements needed and asked if the subgrade information could also be included to identify the streets that would be available for reclaim light.

City Engineer Westby replied that geotechnical work would need to be done with soil borings to review the soil conditions.

Chairperson Riley asked if the radar would provide that information.

City Engineer Westby replied that only provides details on the bituminous and aggregate section depths but does not identify soil types.

Chairperson Riley asked if engineering would have sufficient time to plan for improvements next year if the additional funding is approved now.

City Engineer Westby commented that if staff can start moving on it right away, that should be possible. He commented that they would have a Civil Engineer working on plans full time after this construction season is done. He commented that Civil Engineer II Feriancek would also be working on plans.

Civil Engineer II Feriancek reviewed the projects currently scheduled for the following year and stated that with the additional staff person assisting, they should be able to complete those plans.

Councilmember Woestehoff asked if the intent would be to use the additional funds for reconstructs, or to focus on the reclaim light projects.

Chairperson Riley commented that is part of the discussion.

Community Development Director/Deputy City Admin Hagen commented that if the additional funding is used on roads, every project for 2023 would use that funding in order to ensure the funds are spent on time.

Councilmember Woestehoff stated that his question was more of whether this is focused on getting the most miles of roads done. He asked if staff has some of the geotechnical data on about half the roads scheduled for reconstruction.

City Engineer Westby did not believe that would be accurate. He noted that there may be data from previous projects or developments in that area. He stated that the next step for the 2023 projects was to award contracts for geotechnical and topographical surveys.

Councilmember Woestehoff asked the cost to have geotechnical work done on all the roads proposed on the CIP for the next set of years.

City Engineer Westby noted that there are some streets that have known issues and perhaps just a boring or two would be adequate to confirm that information.

Civil Engineer II Feriancek provided more details on the estimated cost for that service.

Chairperson Riley commented that there is a known CIP schedule and perhaps it would be a good idea to do the projects planned for 2023 and then attempt to get the most number of miles completed with the additional funding.

City Engineer Westby replied that if City Council approvals could be gained immediately, staff could focus on that task.

Chairperson Riley asked what that would mean.

City Engineer Westby replied that perhaps if a dome project were to come forward, that engineering work would need to be contracted out in order for City staff to stay focused on roads.

Councilmember Woestehoff asked how finance feels about spending those funds on roads.

Finance Director Lund replied that they are going into budget discussions and roads were planned to be on the levy, therefore she would assume they would stay on that tract with the additional funding for roads. She stated that roads would then be \$1,800,000 within the proposed budget. She clarified that contracts would need to be in place by December of 2024 for ARPA funds and spent by December 2026.

City Engineer Westby stated that the plan for 2023 is great but they would still need a plan for the next ten years.

Councilmember Musgrove asked some of the options.

Chairperson Riley commented that most of these are residential streets and could not use MSA funding. He confirmed that an additional \$2,500,000 is needed each year for the next ten years.

Finance Director Lund provided details on the typical terms of bonding.

Councilmember Woestehoff asked if it would be smarter to do a larger amount to get more work done if they were to use bonding.

Finance Director Lund provided details on bonding and the timeline in which the funds have to be used.

Councilmember Musgrove asked if there would be an opportunity to use the consortium if a larger amount were bonded for.

City Engineer Westby replied that the consortium does sealcoating and crack sealing. He stated that the City could bond a larger amount and that costs could be spread over up to ten years.

Chairperson Riley commented that it seems that roads need to be reconstructed rather than overlaid and asked what is driving that.

City Engineer Westby replied that these are the roads that were inherited and the roads are at or near their life expectancy. He stated that the City does about two times the number of overlays compared to reconstructs. He commented that is due to the age of the roads and lack of maintenance in the past. He explained that if there was additional maintenance done in the past, they could be doing move overlays but now the roads have deteriorated past that point and need to be reconstructed.

Chairperson Riley referenced Ute Street, south of Alpine, and asked why that would not qualify as an overlay.

City Engineer Westby replied it has a rating of three or four.

Public Works Superintendent Riemer commented on the number of potholes and wearing of the road.

City Engineer Westby replied that staff can move forward with the plan for 2023 as discussed, or staff could bring additional information back for the July meeting if desired.

Motion by Councilmember Woestehoff, seconded by Councilmember Musgrove, to recommend City Council approval to temporarily increase Pavement Management Program using the available ARPA funds, directing staff to move forward with the planned 2023 CIP road projects and use the additional funds to provide the most benefit to roads possible.

Further discussion:

Motion carried. Voting Yes: Chairperson Riley, Councilmembers Woestehoff and Musgrove. Voting No: None.

Chairperson Riley commented that in terms of planning for the years after, it would make sense to hear more information about bonding and the use of outside engineering consultants.

Councilmember Woestehoff stated that it would also be helpful to have information on future impacts to taxpayers as well.

Finance Director Lund noted that she would need to know the amount that would be bonded for in order to provide that information.

Councilmember Woestehoff stated that he is comfortable with the plan for 2023 but would want more information following that because there are other costs, such as the Water Treatment Plant, that will have impacts.

City Engineer Westby stated that if the decision is to add projects, that work needs to be done in the fall, so the discussion cannot be pushed too far down the road as there is not a funding source identified.

Community Development Director/Deputy City Admin Hagen stated that this will need to be part of the budgeting discussions because funding may need to start increasing in 2023 in order to have the needed funding for the roads going forward and spread that cost out.

Finance Director Lund commented that because she does not know what the levy will be this year and with fluctuating costs, it is hard to project. She noted that the CIP costs are based on estimates prior to this market and those may increase as well. She stated that there has to be something locked in for the levy increase and did not believe five percent is accurate for a growing city.

Chairperson Riley recognized that is more of a budget discussion that could be discussed by the full Council. He stated that if staff has a recommendation that may help the Council make that decision, that would be helpful.

Finance Director Lund stated that for the July budget meeting she will be using the current proposal as the starting point.

Chairperson Riley referenced patching methods and costs and stated that he asked for more information on that and asked what else could be done.

Public Works Superintendent Riemer provided details on the different methods of patching and associated costs.

Chairperson Riley recognized that residents continue to demand repairs, and this helps to show the work that is being done. He asked if funds are available or whether funds need to be directed in order to allocate more funds towards patching.

Public Works Superintendent Riemer believed there would be funds in the budget that could absorb the additional cost.

Chairperson Riley commented that it seems to make sense to follow the more efficient path.

Councilmember Musgrove agreed that this would be more efficient and less impact to the public works staff people.

PW Street Supervisor Shane Turner provided additional details on the more efficient patching method. He confirmed that the machinery is trailered, and that the City has the trailers available.

Public Works Superintendent Riemer noted the only piece that would be new equipment.

PW Street Supervisor Shane Turner commented that there would be a secondary bucket that would go with the machine.

Councilmember Musgrove asked how soon the equipment could be obtained if approved.

PW Street Supervisor Shane Turner commented that there is one available right now at Lano Equipment, therefore it could be a quick turnaround.

Public Works Superintendent Riemer commented that even this method would not provide a solution for some roads that need to be reconstructed, but it would be more efficient for others.

Chairperson Riley asked if this information could be shared with residents to reassure them that their concerns are being addressed.

Finance Director Lund noted that the line item was budgeted for and therefore does not need additional approval.

6. COMMITTEE / STAFF INPUT

6.01: Staff Updates on Improvement Projects and Items of Interest

City Engineer Westby provided an update on current and proposed City, County, and MnDOT improvement projects and studies and on other items of interest to the Committee.

6.02: Review Future Topics Calendar

City Engineer Westby reviewed the future topics calendar.

Chairperson Riley recognized that this is the last Public Works Committee meeting for Public Works Superintendent Riemer. He thanked him for the contributions he has made to the City of Ramsey.

7. ADJOURNMENT

Motion by Councilmember Musgrove, seconded by Councilmember Woestehoff, to adjourn the Public Works Committee meeting.

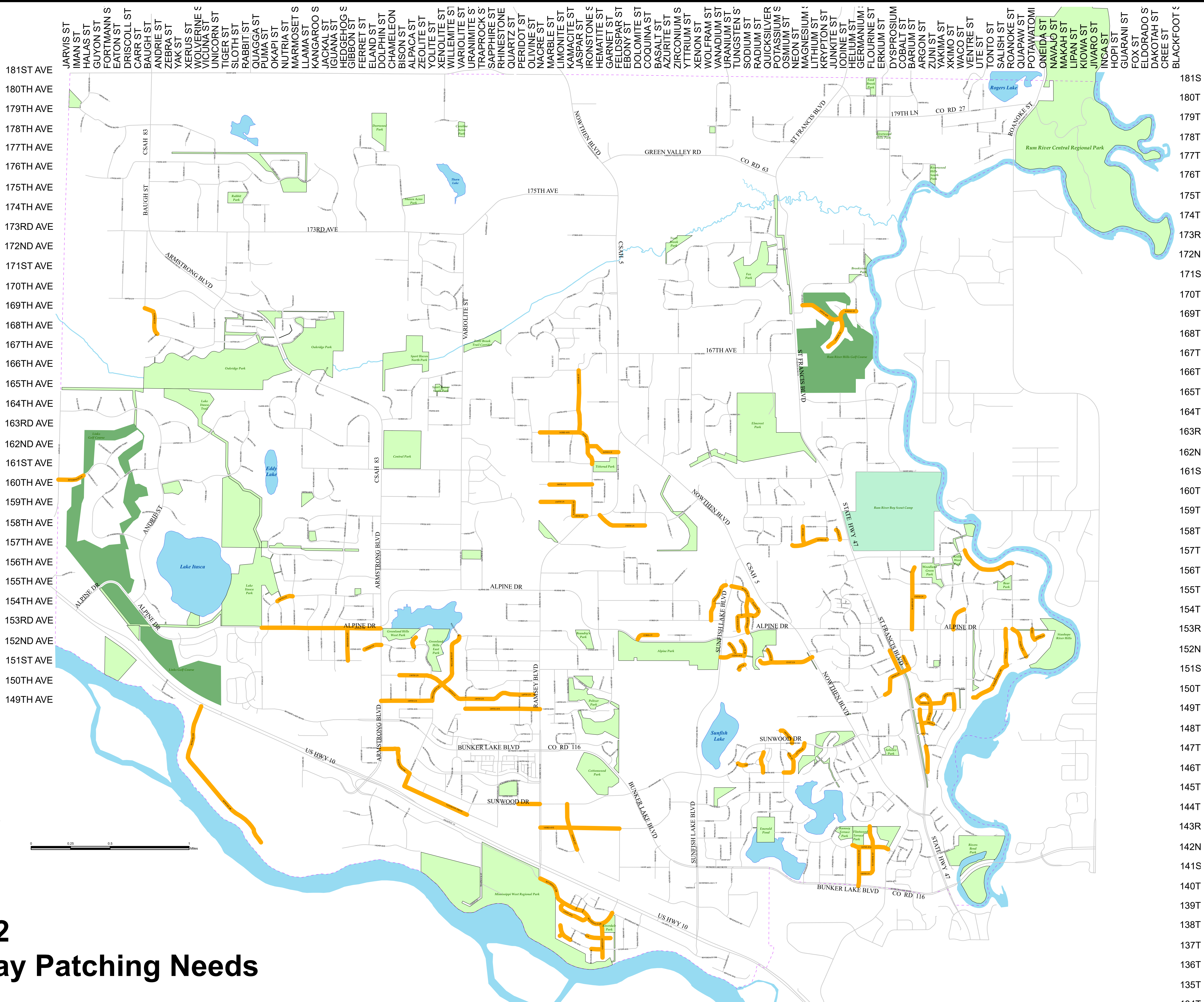
Motion carried.

The regular meeting of the Public Works Committee adjourned at 8:11 p.m.

Respectfully submitted,

Grant Riemer
Public Works Superintendent

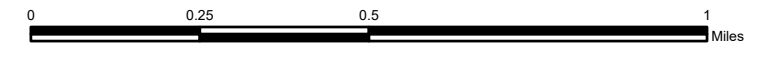
Drafted by Amanda Staple
TimeSaver Off Site Secretarial, Inc.



Legend

Spray Patch Need

- Spray Patch
- Road_Centerlines
- Municipal Boundary
- ScoutCamp
- Golf_Courses
- Parks
- Rivers
- Lakes_Ponds
- Creeks



2022 Spray Patching Needs

JARVIS ST, IMAN ST, HALAS ST, GUYON ST, FORTMANN S, EATON ST, DRISCOLL ST, BAUGH ST, ANDRIE ST, ZEBRA ST, YAK ST, KERUS ST, WOLVERINE S, VICUNA ST, UNICORN ST, TIGER ST, SLOTH ST, RABBIT ST, QUAGGA ST, PUMA ST, OKAPI ST, NUTRIA ST, MARMOSSET S, LLAMA ST, KANGAROO S, JACKAL ST, GUANA ST, HEDGEHOG S, GIBBON ST, FERRET ST, ELAND ST, DOLPHIN ST, CHAMELEON, BISON ST, ALPACA ST, ZEOLITE ST, XENOLITE ST, WILLEMITE ST, VARIOLITE ST, URANIMITE S, TRAPROCK S, SAPPHIRE ST, RHINESTONE, QUARTZ ST, PERIDOT ST, OLIVINE ST, NACRE ST, MARBLE ST, LIMONITE ST, KAMACITE ST, JASPAR ST, IRONSTONE S, HEMATITE ST, GARNET ST, FELDSPAR ST, EBO NY ST, DOLOMITE ST, COQUINA ST, BASALT ST, AZURITE ST, ZIRCONIUM S, YTTRIUM ST, XENON ST, WOLFRAM ST, VANADIUM ST, URANIUM ST, TUNGSTEN S, SODIUM ST, RADIUM ST, QUICKSILVER, POTASSIUM S, OSMIUM ST, NEON ST, MAGNESIUM S, LITHIUM ST, KRYPTON ST, JUNKITE ST, IODINE ST, HELIUM ST, GERMANIUM S, FLOURINE ST, ERKLIUM ST, DYSPROSIUM, COBALT ST, BARIUM ST, ARGON ST, ZUNI ST, YAKIMA ST, XKIMO ST, WACO ST, VENTRE ST, UTE ST, TONTO ST, SALISH ST, ROANOKE ST, QUAPAW ST, POTAWATOMI, ONEIDA ST, NAVAJO ST, MAKAH ST, LIPAN ST, KIOWA ST, JIVARO ST, INCA ST, HOPI ST, GUARANI ST, FOX ST, ELDORADO S, DAKOTA ST, CREE ST, BLACKFOOT S

181ST AVE, 180TH AVE, 179TH AVE, 178TH AVE, 177TH AVE, 176TH AVE, 175TH AVE, 174TH AVE, 173RD AVE, 172ND AVE, 171ST AVE, 170TH AVE, 169TH AVE, 168TH AVE, 167TH AVE, 166TH AVE, 165TH AVE, 164TH AVE, 163RD AVE, 162ND AVE, 161ST AVE, 160TH AVE, 159TH AVE, 158TH AVE, 157TH AVE, 156TH AVE, 155TH AVE, 154TH AVE, 153RD AVE, 152ND AVE, 151ST AVE, 150TH AVE, 149TH AVE

181S, 180T, 179T, 178T, 177T, 176T, 175T, 174T, 173R, 172N, 171S, 170T, 169T, 168T, 167T, 166T, 165T, 164T, 163R, 162N, 161S, 160T, 159T, 158T, 157T, 156T, 155T, 154T, 153R, 152N, 151S, 150T, 149T, 148T, 147T, 146T, 145T, 144T, 143R, 142N, 141S, 140T, 139T, 138T, 137T, 136T, 135T, 134T