



Asphalt Roads Assessment and Financial Plan

PREPARED BY THE HOA BOARD-2016

Purpose: The HOA Board has been working to provide an assessment of the current state of the Asphalt Roads and develop a long term plan for Annual Maintenance along with a Long Term Replacement Plan. Part of the Long Term plan is also to establish a long term budget plan. In order to execute this plan, there will need to be a special Roads Assessment per each lot which will need to be voted on by the neighborhood.

Basic Information:

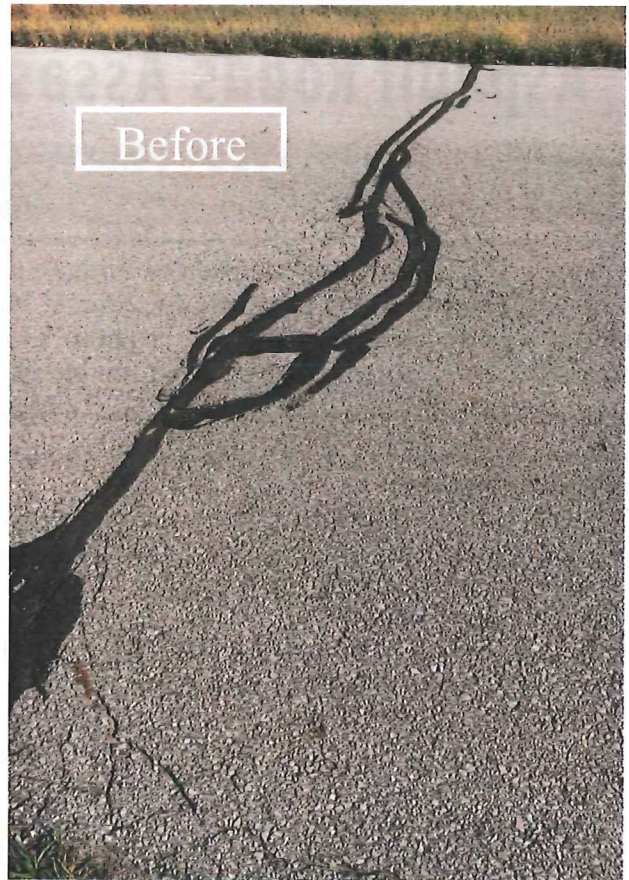
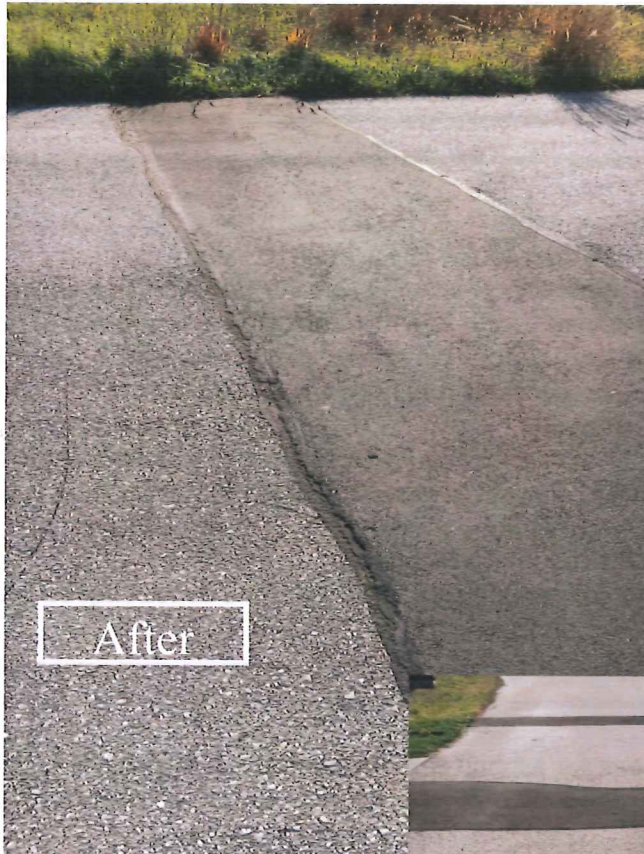
- Roads were installed in 2006, and are currently 10 years old.
- The responsibility of maintaining the roads was turned over to the HOA in 2010.
- The roadway is 6" in total Thickness. There is a 4" base course which basically provides the strength of the roadway, and a 2" top wearing surface that can accept traffic and minimizes the penetration of water and moisture into the system. Roadways fail due to traffic, poor subgrade below the roadway, and penetration of water and moisture into the roadway. The presence of moisture within the system will cause cracking and will eventually lead to failures in the subgrade.
- Starting in 2010/2011, the HOA has been working on crack sealing and replacing failed asphalt areas each summer. These efforts were increased in 2015 when US Asphalt was hired to provide these services in lieu of the previous contractor.
- There are approximately 2.4 miles of roads or 340,000 SF of surface area.
- The typical life expectancy of the asphalt top coarse ranges between 10 to 20 years depending on multiple factors.

Annual Maintenance Plan:

- The HOA Board has solicited proposals and opinions for asphalt maintenance work from both Western Engineering and US Asphalt/Omni Engineering. This scope of work includes an annual inspection, crack sealing, and patching of failed areas.
- US Asphalt/Omni Engineering was awarded the maintenance contract based on price, while also having the most complete scope.
- Annual Maintenance costs for 2015 were \$23,490, and in 2016, they were \$26,770.
- As part of our inspections this year, both companies are seeing deterioration in the top wearing surface and issues in certain areas with asphalt failures due to moisture and subgrade issues. The areas showing the most immediate needs are Cottonwood Creek Blvd and Woodcrest Circle at the main entrances. They have recommended that we anticipate performing these repairs in the next 5 years. Some areas may require work earlier, and some can be extended a few years.
- Depending on raw material costs and the amount of sub base repairs and patching required, we have used a cost range between \$1.25-\$2.00/SF in an effort to be conservative for a 1" milling of the existing top course and installing a new 2" wearing surface. For calculation purposes, we have used \$550,000 for a budget to plan for these repairs(340,000sf x average of unit price range).
- Our goal is to prolong these repairs as long as possible in an effort to get as many homes built as possible to help minimize any future deterioration due to heavy traffic loads.

Roadway Pictures

On Asphalt Roads, you typically develop natural expansion joints. Over time, these cracks get larger, and the worst areas require a patch similar to the picture below

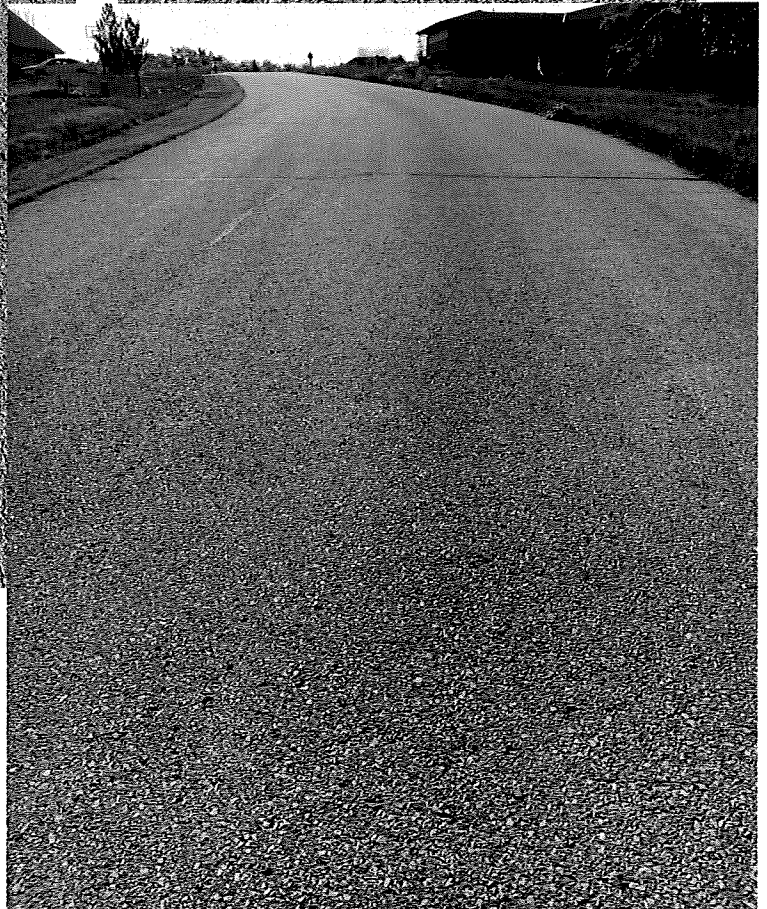
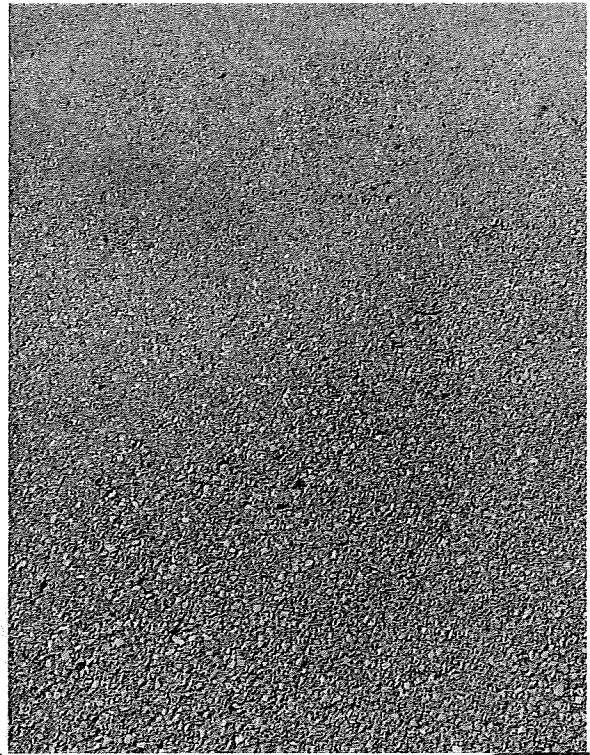


Notice that we are experiencing additional failures at prior patch areas



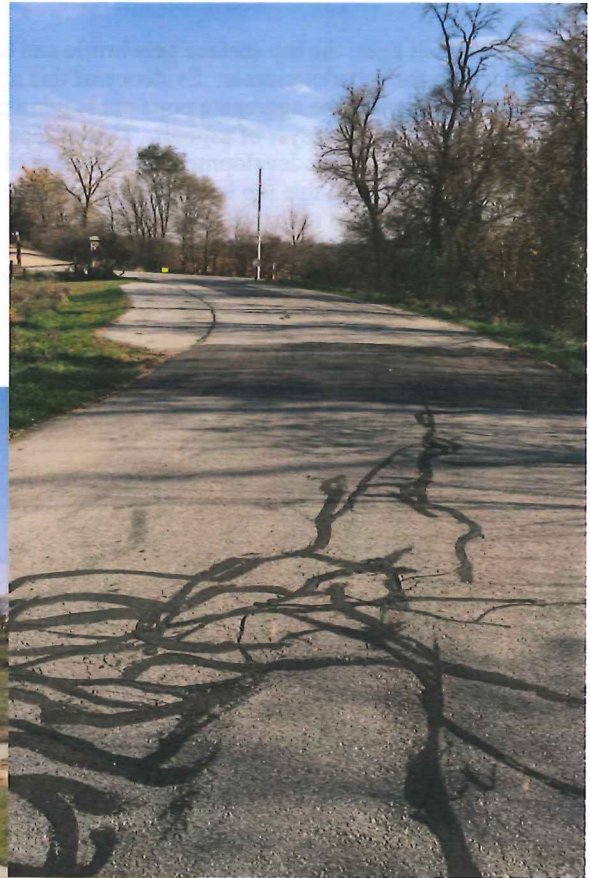
Roadway Pictures

As asphalt ages, the top surface gets brittle and the binders in the mix deteriorate. Evidence of this aging is apparent when the aggregate pops out leaving pits and holes in the top layer of asphalt. This is apparent throughout our entire development. As the age of the road progresses, this top layer gets more brittle allowing water and moisture to penetrate through the asphalt causing serious damage. Eventually, a new top course is required, or the road will break up requiring a complete replacement.



Roadway Pictures

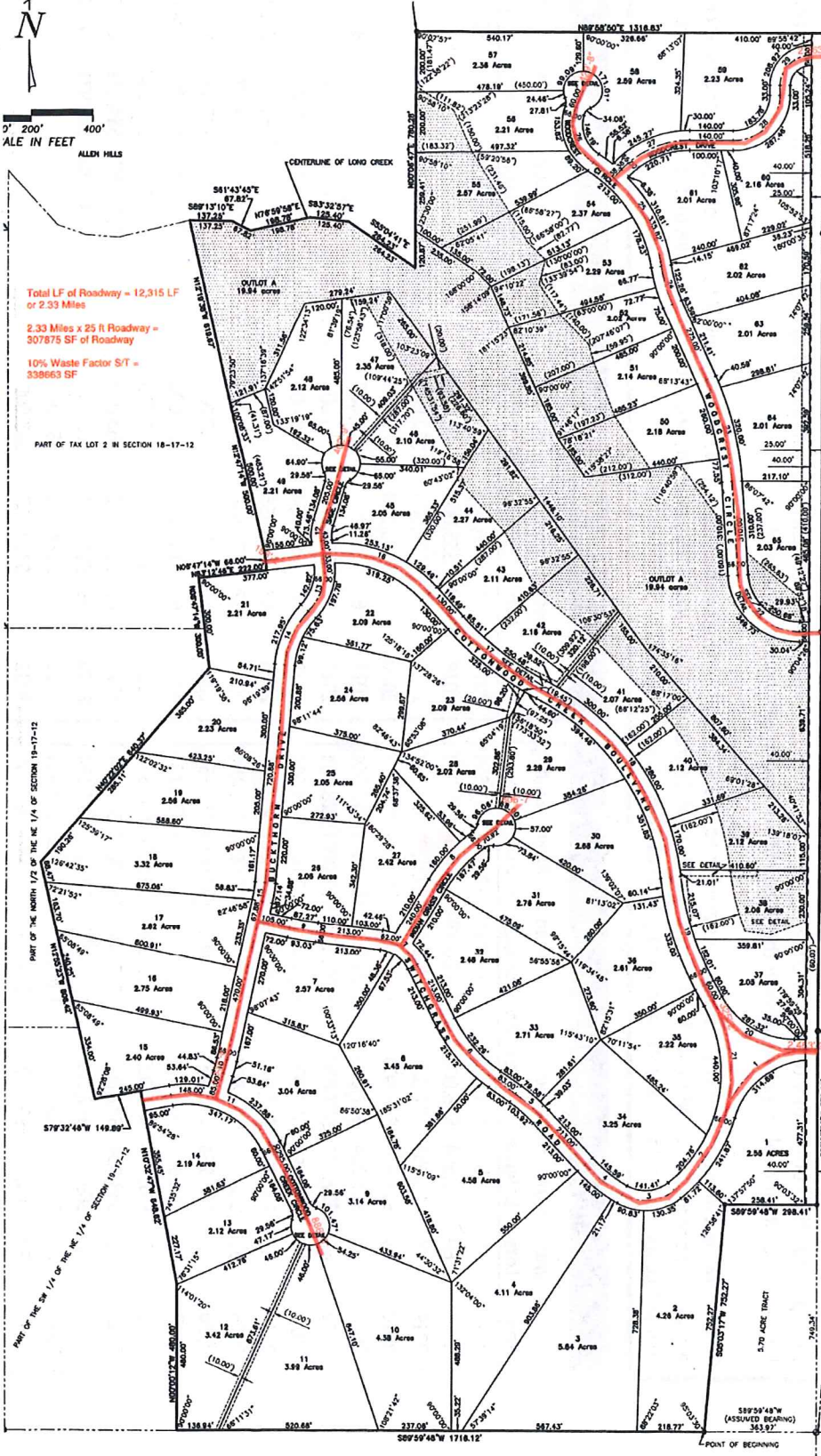
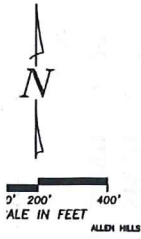
Cottonwood Creek Blvd and Woodcrest circle are showing the most signs of failure and damage. These areas will be more closely monitored each spring during the annual inspections.



Timeline:

- Neighborhood Comment Period: 11/6 to 11/19
- Final Proposal and Ballot: 11/20
- Final Vote due date: 11/30
- Discuss timing of HOA dues and Road Assessment

Map of Roads in Cottonwood Creek



Total LF of Roadway = 12,315 LF
 or 2.33 Miles
 2.33 Miles x 25 ft Roadway =
 307875 SF of Roadway
 10% Waste Factor S/T =
 338663 SF

PART OF TAX LOT 2 IN SECTION 18-17-12

PART OF THE NORTH 1/2 OF THE 1/4 OF SECTION 19-17-12

PART OF THE SW 1/4 OF THE 1/4 OF SECTION 19-17-12

POINT OF BEGINNING

Cottonwood Creek HOA Proposed Financial Plan

Overview: The proposed general dues and special roads assessment structure as outlined below is intended to be a near and long-term solution. Once significant deterioration occurs to our roads, costs attributed to repair will accelerate. The 2 main objects of this financial plan is 1) to position the community to have adequate resources when preventive and corrective measures (costs) are required and 2) to match each lot owners cost (annual assessment) with the useful life of our largest community asset.

The following estimates and key assumptions are based upon historical maintenance costs, bids provided by 3rd party contractors and financing assumptions provided by Mutual of Omaha Bank. The HOA Board recognizes these assumptions are subject to change due to inflation, increases in input costs (particularly petroleum prices) and a rise in bank lending rates.

Estimated General Fund Cash Flow						
Year	Owner Lots	Beginning Balance	General Dues	Road Maintenance	Other Services	Ending Balance
2017	55	\$554	\$33,000	(\$25,000)	(\$7,000)	\$1,554
2018	60	\$1,554	\$36,000	(\$25,000)	(\$7,000)	\$5,554
2019	63	\$5,554	\$37,800	(\$25,000)	(\$7,000)	\$11,354
2020	63	\$11,354	\$37,800	(\$25,000)	(\$7,000)	\$17,154
2021	63	\$17,154	\$37,800	(\$25,000)	(\$7,000)	\$22,954
2022	63	\$22,954	\$37,800	(\$25,000)	(\$7,000)	\$28,754
2023	63	\$28,754	\$37,800	(\$25,000)	(\$7,000)	\$34,554
2024	63	\$34,554	\$37,800	(\$25,000)	(\$7,000)	\$40,354
2025	63	\$40,354	\$37,800	(\$25,000)	(\$7,000)	\$46,154
2026	63	\$46,154	\$37,800	(\$25,000)	(\$7,000)	\$51,954
2027	63	\$51,954	\$37,800	(\$25,000)	(\$7,000)	\$57,754
2028	63	\$57,754	\$37,800	(\$25,000)	(\$7,000)	\$63,554
2029	63	\$63,554	\$37,800	(\$25,000)	(\$7,000)	\$69,354
2030	63	\$69,354	\$37,800	(\$25,000)	(\$7,000)	\$75,154
2031	63	\$75,154	\$37,800	(\$25,000)	(\$7,000)	\$80,954
2032	63	\$80,954	\$37,800	(\$25,000)	(\$7,000)	\$86,754
2033	63	\$86,754	\$37,800	(\$25,000)	(\$7,000)	\$92,554

Estimated Roads Reserve Fund Cash Flow						
Year	Owner Lots	Beginning Balance	Annual Assessment	Project Costs	Loan Payment	Ending Balance
2017	55	\$19,700	\$55,000			\$55,000
2018	60	\$55,000	\$60,000			\$115,000
2019	63	\$115,000	\$63,000			\$178,000
2020	63	\$178,000	\$63,000			\$241,000
2021	63	\$241,000	\$63,000			\$304,000
2022	63	\$304,000	\$63,000	(\$550,327)	(\$27,609)	\$197,040
2023	63	\$1,064	\$63,000		(\$27,609)	\$179,839
2024	63	\$36,455	\$63,000		(\$27,609)	\$161,667
2025	63	\$71,846	\$63,000		(\$27,609)	\$142,471
2026	63	\$107,237	\$63,000		(\$27,609)	\$122,191
2027	63	\$142,628	\$63,000		(\$27,609)	\$100,768
2028	63	\$178,019	\$63,000		(\$27,609)	\$78,136
2029	63	\$213,410	\$63,000		(\$27,609)	\$54,228
2030	63	\$248,801	\$63,000		(\$27,609)	\$28,971
2031	63	\$284,192	\$63,000		(\$27,609)	\$0
2032	63	\$319,583	\$63,000		(\$27,609)	\$319,583
2033	63	\$382,583	\$63,000			\$445,583

Key Assumptions	
Annual General Dues	\$600
Annual Assessment	\$1,000
Misc. Expenses (Snow, Landscape, etc.)	\$7,000
Annual Road Maintenance	\$25,000

Project Assumptions	
Year of overlay:	Spring of 2022
Square Footage (plus 10% waste factor):	338,663
Price per square foot mid-range	\$1.63
Project Costs	\$550,327

Financing Assumptions	
Loan Amount	\$212,000
Loan Term (years)	10
Interest Rate	5.50%
Annual Payment	\$27,609