

Memorandum

TO: City Council Workshop
FROM: Tom Wesolowski , Public Works Director
DATE: July 21, 2025
SUBJECT: Pavement management and street renewal program review and priorities
ITEM NUMBER: 1.a
SECTION: GENERAL BUSINESS

REQUESTED MOTION

INTRODUCTION

Public works staff has been analyzing the condition of the city's street system to adequately plan for the pavement preservation and rehabilitation strategies to efficiently use the financial resources available to maintain the street system at an acceptable condition. The city council should discuss the pavement management strategies, pavement condition goals and possible funding and work program impacts.

DISCUSSION

The city is responsible for approximately 90-miles of roadways. Of this 71-miles are classified as local, residential roads with the remaining 19-miles classified as municipal state aid (MSA) roads as shown on the attached map.

Shoreview's pavement management program uses a 0 to 100 point scale (PCI) to account for the condition of street segments. PCI ratings in the range of 70 to 100 indicate pavement in relatively good condition and an indication that crack-sealing is a cost-effective pavement preservation treatment. PCI ratings below 69 indicate the pavement condition requires rehabilitation strategies such as pothole repair, skin patching, mill and overlay and full depth reclamation to extend the service life. Due to age and environmental factors such as freeze-thaw cycles, pavements continue to deteriorate over time and it is our goal to time pavement preservation treatments and/or rehabilitation strategies to efficiently use the financial resources available.

In 2024 a pavement condition survey was completed on all the roadways in the city and based on the survey the average PCI rating for all pavement segments is 68, with the local road PCI averaging 66 and the MSA PCI averaging 75. In 2011, the city's performance measure program adopted a average street pavement PCI goal of 70.

Between 2007 and 2021 a majority of the city's street renewal funding was dedicated to the reconstruction of streets to meet the city standard with the installation of stormwater collection and treatment systems and concrete curb and gutter and replacement of the pavement section with a pavement life of 30-years. Reconstruction projects also included the replacement and/or rehabilitation of other city infrastructure such as water main, sanitary

sewer, street lights and trails if needed. All city streets now meet the city standard except for Hamline Avenue between County Road I and Lexington Avenue which was turned back from Ramsey County to the city in 2011 and is classified as an MSA roadway. The current CIP includes the reconstruction of Hamline Avenue in 2028 and will include the installation of a stormwater collection and treatment system and concrete curb and gutter, water and sanitary sewer improvements and an extension of the city's trail system. A majority of the costs for the project will be funded from the city's MSA account. During that same timeframe, pavement rehabilitation projects were completed periodically on local and/or MSA roadways with funding from street rehabilitation bonds and the city's MSA account. The majority of the rehabilitation consisted of full-depth reclamation (FDR) of the pavement section, a stabilized base and new pavement which is the most expensive rehabilitation strategy and a pavement life of 30-years. Mill and overlays (M&O) were also completed consisting of milling off the top layer of pavement and installing a new pavement surface. This type of rehabilitation is less expensive with a pavement life of 10 to 15-years.

With all of the city roadways up to city standards, the focus of the city's pavement management has switched from reconstruction of streets to pavement preservation and rehabilitation strategies. Rehabilitation projects were completed in 2022 and 2024 and the current CIP includes rehabilitation projects every even year with funding from the street renewal fund with the addition of a project in 2027 which will be funded from street rehabilitation bonds. Rehabilitation strategies will consist of FDR and M&O depending on the condition of the pavement, FDR is effective on roadways with a PCI lower than 50 than while M&O is effective for a PCI of 50 to 70. Pavement preservation strategies will include crack-sealing and the application of asphalt rejuvenators which need to be completed on specific timeframes to be effective. Because cracks continue to form as pavement ages, crack-sealing needs to be completed every 4 or 5-years to be effective and rejuvenators, which restore and reseal the surface of the pavement, after effective if placed within the first 5-years of when the asphalt pavement is installed.

Staff is currently determining the roadway segments that will be included in the 2026 pavement rehabilitation project as well rehabilitation projects to determine if the funding levels in the current CIP are adequate to bring up and maintain the total system PCI average at 70 and if not what financing would be required. Another area staff will examine is the funding requirements for local roads vs MSA roads. MSA roadway improvements are typically funded from the gas tax distribution the city receives annually. Due to the city's North Owasso Boulevard Reconstruction in 2019 and Ramsey County's reconstruction of Hodgson Road in 2023/2024, which included city MSA cost share based on the county's cost participation policy, the city's annual MSA allocation was not adequate to cover the costs and the city had to advance encumber future MSA funding until 2028. Due to the encumbrance, MSA roadway segments rehabilitated as part of the city's 2022 street rehabilitation project were funded from the street renewal fund and the city will receive MSA reimbursement for those cost after the encumbrance is covered. Based on the survey the local roadways have a lower total average PCI than the total average MSA PCI and depending on the city's priorities for road condition, the city may want to examine ways to fund MSA improvements to allow all the street renewal funds to be used for local road improvements.

RECOMMENDATION

Staff is seeking council feedback and direction on the pavement management strategy and potential funding required to meet the required condition goals.

ATTACHMENTS

City & MSA roadways