



Memorandum

TO: TRANSPORTATION AND ENVIRONMENT COMMITTEE

FROM: John Ristow

SUBJECT: See Below

DATE: January 13, 2025

Approved

Date:

1/24/2025

SUBJECT: Pavement Maintenance Conditions, Funding, and Program Delivery Strategy

RECOMMENDATION

Accept report on Citywide Pavement Conditions, Funding, and Program Delivery Strategy.

EXECUTIVE SUMMARY

The City's overall pavement condition continued to improve, and the pavement maintenance backlog decreased, trends that should continue over the next four years while existing revenue streams remain available. However, funding from Measure T is expected to sunset in 2028 which raises the need to identify new funding sources to ensure the City can maintain the improved pavement condition. New federal requirements associated with Public Rights-of-Way Accessibility Guidelines are expected to become enforceable in 2026 will also require a need for additional funding.

BACKGROUND

The City's overall pavement condition continued to improve, resulting in the second consecutive year of an overall "Good" rating and an average Pavement Condition Index (PCI) rating of 74 on a scale of 0-100, with 100 being a new street. The PCI score of 74 represents an unprecedented achievement in pavement quality for San José. The Department of Transportation (DOT) and its partners successfully maintained and rehabilitated 208 of 241 planned miles of the 2,519-mile street network in the 2024 construction season. Thanks to revenue streams such as 2016 VTA Measure B, State

Senate Bill (SB1), and City Measure T, pavement conditions are expected to continue to improve and the maintenance backlog to decrease through the next four years.

In 2010, the City Council established a goal of improving pavement conditions to an overall "Good" rating with a PCI of 70 by 2020. In 2011, as the funding targets were not met and the backlog grew, the City Council provided direction to staff to prioritize use of available maintenance funds on the City's most important and heavily traveled major streets. This resulted in the creation of the 967-mile Major Street Network, representing 38% of the entire street system, but carrying over 85% of traffic in and through the City. Because of sustained investments and maintenance on the Major Street Network, DOT has been able to stabilize and maintain the average PCI for these streets to in an overall PCI of 76, or "Good" condition. After several years of significant investment in the 1,552-mile Local and Neighborhood Streets the PCI of these streets has improved to 73, or "Good" condition from the beginning of the revamped maintenance program in 2018 when the PCI for these streets was at 61. Measure T, the driving force behind the improvement in local streets, will expire in Fiscal Year 2026-2027.

ANALYSIS

DOT utilizes a standard set of pavement condition rating criteria established by the Metropolitan Transportation Commission (MTC) to assess the conditions of the City's streets. The condition of a street, or network of streets, falls into one of four categories in the PCI rating system that range from "Excellent" (PCI 100) to "Failed" (PCI 0). Attachment A provides a table and a general description of the PCI rating scale and visual examples of pavement in conditions that correlate to the PCI scale.

Current Pavement Condition and Projections

To sustain an overall "Good" condition (PCI 70), and further reduce the backlog of deferred maintenance, the City needs to invest \$63.8 million annually for 10 years. Average funding levels for the next 10 years are estimated at approximately \$69.3 million per year, meaning there is no maintenance shortfall during this period. For reference, the annual shortfall was \$42.7 million in 2018 and \$77.5 million in 2017. However, it is important to note that Measure T funds will be exhausted in fiscal year 2026-2027 and the annual paving budget will decrease to \$53.6 million at that time and through FY 2033-2034 as demonstrated in Attachment B. The condition of the network is illustrated in more detail below and in Figure 1 and summarized below.

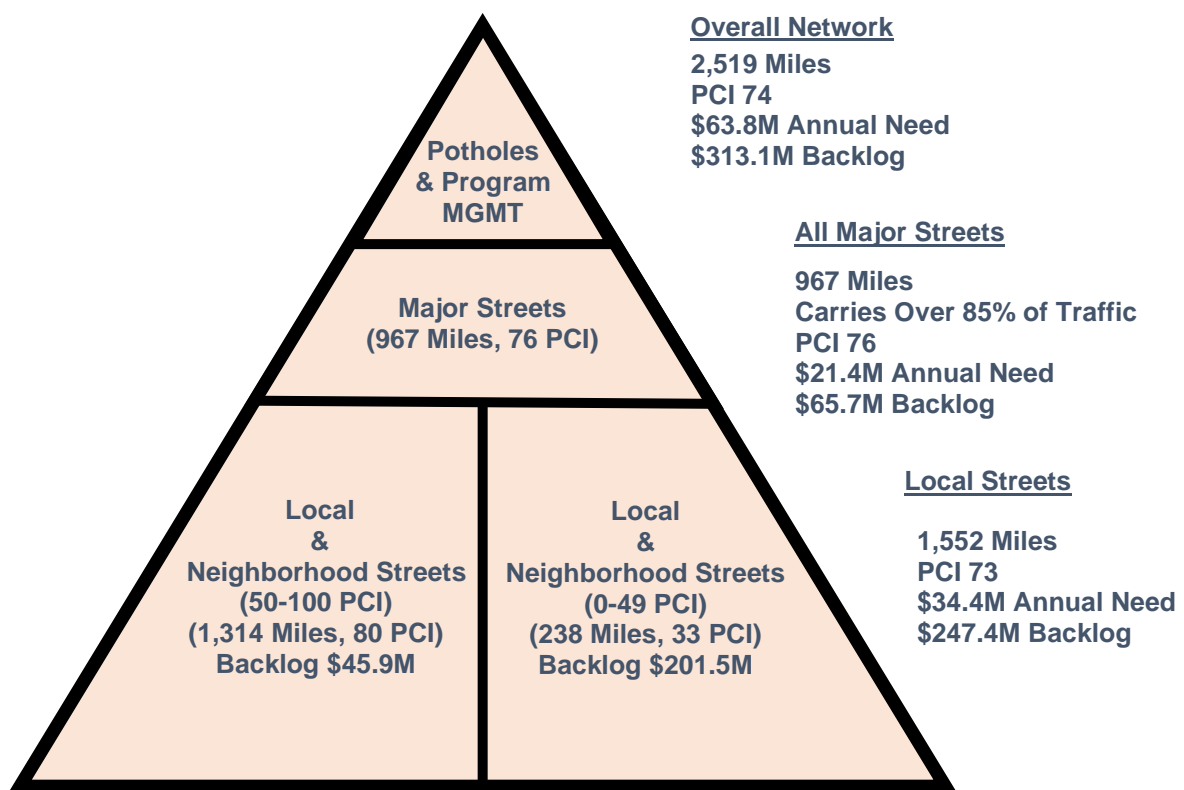
Overall: The overall condition of the City's entire 2,519-mile street remains "Good" with a PCI of 74 up from 73 in 2023. There is a one-time maintenance funding need totaling \$313.1 million. The one-time need has decreased by 10% from the \$407.4 million backlog reported last year as seen in Attachment B.

Major Streets: The City's 967-mile major street system remains rated as "Good" with a PCI of 76. There is a one-time need on the major street system of \$65.7 million.

Maintenance on the major streets is fully funded at approximately \$24.2 million annually to maintain a PCI of 70.

Local Streets: The City's 1,552 miles of local and neighborhood streets have a PCI of 73, a rating in the "Good" category, which is an improvement of four points from the previous report. The one-time backlog on the local street system has decreased from \$303.7 million to \$247.4 million.

Figure 1 – San José Pavement Maintenance Pyramid



At current and projected funding levels, the backlog of deferred pavement maintenance will decrease to \$231 million in 2027. In the 2017 report, the estimated 2027 backlog was expected to reach **\$1.1 billion**, meaning that timely and aggressive investment has decreased that projection by nearly **\$869 million**. The 10-year backlog of deferred maintenance is estimated to be \$438 million in 2034, meaning that the backlog will begin to trend upwards as Measure T expires.

Through the 2033 construction season, \$63.8 million will be enough to fully fund pothole repairs and program management at \$8 million annually. It will also fully support the \$21.4 million needed each to year to maintain an average PCI of 70 or better on the

Major Street Network. Additionally, appropriate, and prescribed maintenance on all 1,552 miles of local and neighborhood streets will be performed by end of 2028.

On-going Pavement Maintenance Funding Needs and Projected Conditions

The investment needed for City streets to remain in the current "Good" condition (not drop below PCI 70) is \$63.8 million and is met by the \$69.3 million average 10-year funding level. The average annual investment required to maintain the current PCI of 74 over the next 10 years is \$73.6 million. The average network PCI is expected to maintain a rating of "Good" (PCI 70) until 2028 but will subsequently decrease, potentially dropping below 70 after 2030. The chart in Attachment C further illustrates the funding needs and contrasts that with current projected funding estimates.

Complete Streets, Accessibility, and Traffic Safety

In 2018, City Council adopted the "San José Complete Streets Design Standards and Guidelines" which helps guide implementation of the Envision San José 2040 General Plan as it relates to the public right of way and city street system. Both VTA 2016 Measure B and Senate Bill 1 call for complete street elements that result in safer streets with improved mobility options. DOT uses these guidelines to incorporate complete street elements to the extent possible as projects are planned, designed, budgeted, and delivered. Coordinating improvements with the paving cycle provides a cost-effective opportunity to reconfigure vehicle lanes, enhance existing or install new bike lanes, and upgrade vehicle and bike detection systems in a way that maximizes safety and the flow of traffic for all roadway users while minimizing the impact to vehicle capacity and on-street parking. In 2024, DOT added 4.2 miles of bikeways and enhanced another 12.4 miles of existing bikeways through the pavement maintenance projects.

All major streets will be evaluated for safety and bicycle improvements. The 2025 pavement program will incorporate "quick-build" safety projects work along Vision Zero Priority Safety Corridors (such as 1st Street, 10th Street, Moorpark Avenue, White Road, San Carlos St, Jackson Avenue, Meridian Avenue, Camden Avenue, and Blossom Hill Road) to create safer streets for walking, biking and driving. With high speeds being a top factor in traffic fatalities, roadways will be re-engineered with paint and bollards to create curb extensions that shorten crossing distances and pedestrian refuge areas will be added to reduce traffic exposure and slow turning movements to provide maximum opportunity for drivers to yield to pedestrians.

Project Delivery

The 2024 construction season marked the fourth year of Measure T funded street projects. The information below describes highlights and opportunities with delivering this expanded program.

2024 Summary

In 2024, DOT turned the approved transportation dollars into 31 pavement construction projects for a total of 241 miles of street maintenance and installation of 2,026 Americans with Disabilities Act (ADA) curb ramps along the pavement corridor. DOT successfully completed 208 out of the 241 miles before suspending activities due to winter weather conditions. All ADA curb ramps for 2024 were completed. Work on these remaining miles will resume when weather permits around February 2025.

Four-Year Pavement Plan (2025-2028)

To ensure public transparency and accountability, DOT developed a four-year look ahead that will be updated annually. The plan demonstrates a commitment to prioritize hundreds of miles of local streets in poor condition, while continuing to maintain major streets that carry the most traffic through the City. This plan has been coordinated with internal and external stakeholders including utility companies, managers of planned construction projects, elected officials, and other City departments. Importantly, this plan enables DOT to carefully overlay multiple department strategies by examining potential Vision Zero interventions, pedestrian safety enhancements, and bike plan recommendations and deliver them more quickly and efficiently. Each year this plan is shared publicly, giving residents and commuters an idea of when the streets they use will be refreshed or resurfaced. The most updated four-year plan (2024-2028) includes 1,082 miles of city streets slated to be preserved or rehabilitated by the end of 2028, encompassing 368 miles of major streets and 714 miles of local and neighborhood streets. An interactive pavement project map on the City website¹ lets the public see the big picture.

Outreach

Along with traffic impacts, the potential for utility and development conflicts has grown as more streets are maintained. DOT has refined its planning with contractors, utility companies and other jurisdictions through the inclusion of its local street pavement plan in the annual coordination process with external stakeholders. DOT will also continue to mitigate resident concerns through proactive notification, increased internal and external stakeholder coordination, presence at community meetings, and project implementation

¹ City of San Jose Pavement Webpage: <https://www.sanjoseca.gov/paving>

measures taken to minimize the impact of pavement maintenance activities. Resident outreach and education are critical to the successful implementation of maintenance on the local and neighborhood streets. For pavement maintenance activities to succeed, vehicles must be moved, trees trimmed, and extensive ADA ramp and concrete work performed where required.

Innovation

DOT has been implementing sustainable construction methods and materials on the City's roadways such as "Cold In-Place Recycling" which re-uses existing roadway asphalt instead of hauling it away, and Rubberized Hot Mix Asphalt derived from recycled tires. Staff developed a specification for low-carbon concrete mix designs while ensuring the same concrete strength and quality. The low-carbon mix design used was about 40% lower in global warming potential than a baseline mix design.

In addition, DOT is preparing to reconstruct Katherine Court, one of the few streets in the City made of concrete pavement. Instead of replacing the street with the same materials and design, DOT will be using permeable interlocking concrete pavement for the first time, consisting of a permeable paver surface through which stormwater can infiltrate, passing through the paver joints and down to layers of open-graded aggregate-filled openings and into the soil subgrade. This will help reduce stormwater runoff and pollutants, while providing a strong pavement that has a longer service life compared to a typical asphalt pavement. This new construction is not only innovative, but also is green stormwater infrastructure that will be counted as a "No Missed Opportunities" project defined in the Stormwater Municipal Regional Permit.

Equity Priority Communities (EPC)

DOT started considering equity as a prioritization criterion for the Local and Neighborhood Pavement Maintenance program in 2022. DOT cross-referenced the selected zones with census tracts designated by MTC as "Equity Priority Communities" (EPC) to better track equity in service delivery. Results confirmed that 240 out of 262 miles (roughly 92%) of local and neighborhood streets designated in EPC's will be maintained by the end of 2026. In the 2024 construction season, DOT maintained 26 miles of streets in EPCs, which is roughly 18% of the 147 miles of Local and Neighborhood Streets selected for maintenance in 2024.

Of the 176 miles of local and neighborhood streets planned for the 2025 construction season, DOT will maintain 30 miles in EPCs. DOT will continue to cross-reference with MTC's data to better track maintenance progress in EPC areas and update pavement maintenance plans annually. DOT is also introducing a performance measure that will compare pavement condition in EPCs and non-EPCs for the local streets paving program to support and ensure equitable pavement maintenance across the City.

Public Rights-of-Way Accessibility Guidelines

The Public Rights-of-Way Accessibility Guidelines are federal guidelines developed by the U.S. Access Board to ensure accessibility and compliance with the ADA within public rights-of-way. These guidelines address the unique challenges of constructing and maintaining accessible pedestrian pathways, curb ramps, crosswalks, signals, and other infrastructure in the public right of way. These guidelines will become enforceable once adopted by the U.S. Department of Justice and the U.S. Department of Transportation. As of December 18, 2024, the U.S Department of Transportation has adopted these guidelines as part of its ADA standards for transit stops in public rights-of-way, with the rule becoming effective on January 17, 2025.

The guidelines are anticipated to be adopted by the Department of Justice and become enforceable in 2026. Compliance with the new standards is expected to have fiscal implications for the pavement program due to the additional costs associated with meeting the updated requirements. To proactively assess the financial and scheduling impacts of these guideline on the City's annual pavement program, the DOT plans to initiate a small-scale pilot project in 2025 incorporating these new elements.

CONCLUSION

Since 2019, DOT has built a pavement project delivery team and implemented virtual project management software, used multi-year contracts, utilized minor contracts to increase efficiency and engage local businesses, incorporated equity as a core service measure, and used green concrete technologies scaled throughout the City in the thousands of curb ramps constructed each year. As a result, the City's overall PCI has improved from 66 to 74 in that span, exceeding the initial goal of the nine-year program in its fourth year. Measure T allocations will expire after fiscal year 2027-2028, which presents the most significant challenge to our street network in a decade. DOT staff will continue to inform and engage all stakeholders to ensure that the unprecedented gains made on pavement conditions in San José are not lost.

COORDINATION

This report has been coordinated with the City Manager's Budget Office and the City Attorney's Office.

/s/
John Ristow
Director of Transportation

For questions, please contact Jennifer Seguin, Deputy Director, at (408) 794-6453.

ATTACHMENT

Attachment A: Pavement Condition Index (PCI) Rating System and City Streets - PCI Examples

Attachment B: 10-Year Maintenance Backlog Projections

Attachment C: Pavement Funding Projections