



City of Salinas

PUBLIC WORKS DEPARTMENT • 200 Lincoln Avenue • Salinas, California 93901

Phone: (831) 758-7241 • www.cityofsalinas.org

Memorandum

To: Steve Carrigan, City Manager
From: Adriana Robles, PE, CFM, City Engineer
Date: July 31, 2023
RE.: Pavement Restoration: Pothole Repair Plan

Pavement Restoration: Pothole Repair Plan

I. Potholes and why do they occur?

Potholes are pavement failures that create depressions in the pavement. Potholes begin through cracks in the pavement. Cracks allow water to seep into the roadway. This water creates pockets in the base and subbase layers of the pavement. As temperatures fluctuate, the water expands and contracts weakening the pavement layers. This allows the stress caused by traffic loads to break apart pavement. During the months of December 2022 and March 2023, the City of Salinas experienced the highest rainfall over the past five years, with a total recorded rainfall of 12.7 inches. This rainfall compounded with low temperatures¹ allowed for more pavement failures and potholes to occur.

On March 16, 2021, the Salinas City Council was presented the Pavement Management System Update and Pavement Conditions Report. The City of Salinas' overall average pavement condition index was 55, or poor, based on pavement conditions observed in 2020. The report highlighted deferred maintenance and lack of funding for pavement maintenance.

Given the overall pavement conditions, the unprecedented rainfall, and the low temperatures experienced this winter, the creation and multiplication of potholes was inevitable. To date staff has repaired 12,374 potholes for 2023, compared to 3,912 potholes in 2022 and 5,017 potholes in 2021.

II. Current pavement restoration strategies

Potholes are repaired as part of the maintenance functions of the Streets Maintenance Division of Public Works. Using the Q-Alert system, maintenance staff respond to pothole locations, placing either Granite patch or hot mix asphalt, an industry standard, to repair the pothole. Staffing the Streets Division has been a challenge. Vacancy in the division has led to incomplete crews and the inability to expand work capabilities. Currently, the single crew will divide their workweek schedule between assisting contractors of the 50-50 sidewalk repair program with asphalt patching, pothole repair (Q-Alerts), roadway reconstruction, crack sealing, equipment maintenance, assistance with special events, and assistance to other divisions or emergency responses. Pavement preservation has been the task of Engineering (CIP) Division of Public Works. Preservation has taken the form of slurry sealing, chip sealing and reconstruction.

Currently, Streets Maintenance has begun reconstruction of some of the lowest rated residential streets. By focusing on residential streets, pavement reconstruction can be more efficient as this requires less traffic control, and the crew can work with fewer disruptions.

Maintenance, rehabilitation, and preservation of pavements is generally funded by SB1, Measure X and gas tax. These funds also fund other functions and programs of the City of Salinas.

III. Pavement Restoration Plan - Resources

In order to develop a pavement restoration plan that will work consistently given the staffing fluctuations, the Public Works department must seek alternative strategies to current division functions. This must begin by focusing the effort of the Streets Maintenance staff to street maintenance.

During FY2022-2023, a total of 28 50-50 sidewalk repair permits were issued. Many of which requiring assistance from the streets crew to patch asphalt following sidewalk, driveway, and curb repairs. A typical asphalt patch (~20-ft) would take the streets crew up to four hours to replace. As part of a review of the 50-50 sidewalk repair program, patching of the roadway (tie-ins) following repairs should be placed on the contractor conducting the work.

Also in FY2022-2023, the streets crew provided assistance to 26 special events. This assistance at times required multiple days to set up and break down traffic control, signage, or roadway closures. Together the streets crew dedicated approximately 3-4 weeks of work to special events. In order to relieve the maintenance crew of special events responsibilities, event organizers should be required to provide their own traffic control or funding needs to be appropriately allocated to contract the traffic control of special events to an on-call contractor.

Street maintenance crews also assist in installation of traffic calming measures and street signage installations requested by the Traffic Division.

IV. Pavement Restoration Plan – Funding

Current pavement conditions have allowed for an influx of funding not previously allocated to pavement. \$1M to the Streets Division and \$3M to the CIP Division were appropriated for pavement from the ARPA funds. Additionally, \$7.8M of unspent FY2022-2023 General Funds were appropriated to pavement restoration. This will add to the funds normally appropriated in the CIP budget to the pavement funds (9981 and 9234). Moving forward staff will continue to advocate for additional funding to be dedicated to pavement restoration.

V. Pavement Restoration Plan – Addressing Potholes

As part of this year's appropriation of unspent FY2022-2023 general funds, each council district will receive ~\$1.3M. CIP staff is proposing to maximize the use of these funds by addressing pothole repair. Staff proposes contracting for base repair on the arterials and collectors with the greatest need in each district. In some cases, deviations from this strategy will be made at the request of Councilmembers. Staff will request additional funding in the coming budget year to slurry roadways segments that are receiving base repair as part of the pothole repair.

In the early fall, prior to the start of the rainy season and cooler weather, the streets maintenance crews will dedicate significant effort to crack sealing. A robust and annual survey of all city streets and crack sealing of all cracks would significantly reduce the city's susceptibility to potholes.

In the spring, as weather allows, the streets maintenance crew will dedicate their efforts to pothole repair. Again, a robust and systematic effort to survey all city streets and address all potholes would significantly impact the pavement conditions. This may come in a district-by-district effort that may expand multiple weeks.

VI. Pavement Restoration – Reconstruction/Management

Public Works CIP staff is working with Pavement Engineer Inc. on an update of the Pavement Management System which will provide the current Pavement Condition Index and on a policy for addressing pavement management. The policy will incorporate the need for prioritizing roadway maintenance based on data-driven process, funding options for a sustainable program and the need for addressing utility cuts which weaken roadway pavements (a moratorium).

VII. Pavement Management Plan

As illustrated in the 2021 Pavement Management System Update presentation to Council, full replacement of roadway pavements would require a \$1.3B appropriation. The cost would be reduced with increasing street crew staffing and funding. As neither the required funding nor the staffing can be secured, staff is proposing the following recommendations.

1. Update the 50-50 Sidewalk Repair Program to require contractors to also perform the required asphalt roadway patch required with sidewalk, curb, or driveway improvements.
2. Modify the Special Events program to require applicants to provide the required traffic control or to reimburse the funding of a traffic control contractor managed by the City.
3. Adjust street maintenance crew schedules to focus maintenance efforts on activities which will better serve the city by focusing on crack sealing in the fall and pothole repair in the spring.
4. Continue pavement reconstruction of residential streets by the Streets Division with assistance by on-call contractors, as allowed by funding.
5. Secure adequate funding annually to provide annual pavement preservation projects (slurry seals and chip seals) of roadways based on the prioritization set by the Pavement Management policy.
6. Secure adequate funding annually to address base repairs and reconstruction of arterials and collectors based on the prioritization set by the Pavement Management policy.