



DATE: January 22, 2020

TO: Council Infrastructure Committee

FROM: Director of Public Works

SUBJECT: FY20 Pavement Improvement Project: Review and Comment on the FY20 Pavement Improvement Project

RECOMMENDATION

That the Council Infrastructure Committee reviews and comments on the FY20 Pavement Improvement Project.

SUMMARY

The FY20 Pavement Improvement Project is currently under design and tentatively calls for the rehabilitation of fifty-two street sections, and preventive maintenance of another sixty-two street sections, for a total of 114 street sections. Please see Attachment II for the list of streets. The proposed improvements will repair failed pavement sections and improve street surfaces.

The project budget is \$12,045,000. The funding comes from Gas Tax, Measure BB, Measure B, Vehicle Registration Fees and anticipated Road Repair and Accountability Act (SB1) funds.

BACKGROUND

The Pavement Improvement Project involves one of four types of treatments:

PAVEMENT REHABILITATION:

- 1) Standard overlay of the existing street pavement with new Hot Mix Asphalt surfacing.
- 2) Cold-In-Place Recycling (CIR), which involves removing the top layer of asphalt, mixing the removed aggregates with a recycling agent and other additives on-site, replacing this pavement material onto the same roadway, then applying a Hot Mix Asphalt overlay.
- 3) Full Depth Reclamation (FDR), which consists of pulverizing and mixing distressed asphalt and underlying pavement materials with or without the addition of stabilizing

agents; using the resulting material as a base for the renewed pavement structure and adding a new Hot Mix Asphalt cap.

PREVENTIVE MAINTENANCE:

- 4) Varying combinations of: crack sealing, 6" spot repair and micro-surfacing.

Street selection for the Pavement Improvement Project are based on staff's analysis using several criteria described below:

- **Technology** – The Pavement Management Program (PMP)¹ evaluates current and predicts future roadway conditions. It provides logical and efficient methods of identifying street rehabilitation needs. It also determines the most cost-effective allocation of funds to the street segments needing preventive maintenance, rehabilitation or reconstruction. Staff utilized the PMP to compile an initial list of recommended streets. This list is then revised to consider other criteria and project budget allocation parameters.
- **Internal Reports** - Reports from the City's Maintenance Services staff on streets needing repair were considered.
- **Council Members Input** – Council member requests for selecting streets were considered.
- **Public Input** - Public requests for selecting streets were considered.
- **Geographic Location** – Selecting streets in close vicinity to help lower construction bids was considered.
- **Funding Availability** – Available funding and potential for obtaining outside grant funding was evaluated.

The Pavement Condition Index (PCI) is an overall rating of road conditions. The PCI of each arterial and collector street segment is evaluated by an independent third-party every other year, and each residential street segment is evaluated every five years.

<u>PCI Rating</u>	<u>Description</u>
100	This rating is given to newly constructed or rehabilitated roadways.
85 - 99	Highly functional roadway. No action required.
70 - 85	Roadway can be maintained ("preventive maintenance") with crack sealing, slurry seals, micro-surfacing, and some minor, localized pothole repairs. As the roadway pavement ages, preventive maintenance may not be effective after a few maintenance cycles.
40 - 70	Extensive "dig-outs," grinding, fabric, or asphalt overlays may be required to maintain (or "rehabilitate") roadway.

¹ The PMP is a Metropolitan Transportation Commission (MTC) recommended software program.

0 - 40	Roadway requires complete reconstruction using full depth reconstruction, cold in place recycling, or hot in-place recycling methods. If a street deteriorates beyond certain points, it becomes progressively more expensive to bring that street back to the desired standard.
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As part of the 2018 Capital Improvement Program (CIP) agenda item at the November 29, 2017 CIP meeting, the committee reviewed and agreed to the following budget allocations for annual pavement improvement projects:

- Minimum 20% for preventive maintenance (streets with PCI of 70-85).
- Minimum 10% for deteriorated streets (streets with PCI of 0-30).
- Minimum 15% for streets located in Industrial Hayward as recommended by the Economic Development Strategic Plan in 2014.

DISCUSSION

The plans and specifications for the FY20 Pavement Improvement Project are currently in design and expected to be complete in February 2020. Based on staff's analysis using the criteria described above, the project parameters are as follows:

PROJECT BUDGET ALLOCATION	GOAL	CURRENT PERFORMANCE	DIFFERENCE
Preventive Maintenance Treatment	20% minimum	21%	1%
Streets Located in Industrial Hayward	15% minimum	37%	22%
Streets with PCI Less than 30	10% minimum	18%	8%

This selection requires both judgement and experience. Staff has engaged an experienced consultant, Pavement Engineering, Inc., to confirm the selection of streets sections, the approximate level of treatment for each and provide engineering support services.

A total of 3.8 miles of bike lane striping will be installed based on recommendations from Bike East Bay for the following locations:

Class II – Unprotected Bike Lane

- Huntwood Way from Tennyson Road to Schafer Road (0.7 miles).

Class IV – Protected Bike Lane

- Huntwood Way from Whipple Road to Tennyson Road (2.0 miles).
- Clawiter Road from Eden Landing Road to Industrial Boulevard (1.1 miles).

ECONOMIC IMPACT

This project is fully funded by the City's Capital Improvement Program.

FISCAL IMPACT

The estimated project funding sources are as follows:

• 210 - Gas Tax	\$1,474,000
• 212 - Measure BB – Local Transportation	\$3,852,000
• 215 - Measure B – Local Transportation	\$3,655,000
• 218 – Vehicle Registration Fee	\$606,000
• 211 – RRAA (SB1) (awarded amount to be announced in June 2018)	\$2,758,000
• Earmarked Funds for Alameda County Public Works for the Hesperian Boulevard Corridor Improvement Project*	<u>-\$300,000</u>
<i>Total:</i>	\$12,045,000

*The Hesperian Boulevard Corridor Improvement Project is led by Alameda County Public Works. A small portion of the work is within City right of way along southbound Hesperian Boulevard near A Street.

STRATEGIC INITIATIVES

This project supports the Complete Streets Strategic Initiative. The purpose of the Complete Streets Strategic Initiative is to build and maintain streets that are safe, comfortable, and convenient for travel for everyone, regardless of age or ability; including motorists, pedestrians, bicyclists, and public transportation riders. This project supports the following objectives:

Goal 1: Prioritize safety for all modes of travel.

Objective 1: Reduce the number of fatal and non-fatal traffic accidents in the City through engineering evaluation of major intersection and corridors.

Objective 3: Ensure that roadway construction and retrofit programs include complete streets elements. This project ensured that consideration was given to all users of the street, including pedestrians, bicyclists, transit users, senior citizens, and school children, in addition to vehicular traffic.

SUSTAINABILITY FEATURES

The project requires the contractor to recycle all construction and demolition debris as a result of the project.

This project is consistent with City's Complete Streets Policy and improves travel for all users including:

- Improved pavement for motorists
- Additional 3.8 miles of bike lanes and sharrows for bicyclists
- More visible pavement markings for pedestrians, including near school zones
- New or upgraded curb ramps to meet the recently revised Caltrans standards for pedestrians

The project satisfies the following General Plan policies:

- PFS-7.10 Recycled Products or Processes for Capital Projects
- HQL-2.5 Safe Routes to School
- HQL-2.6 Education on Sharing the Road
- M-1.7 Eliminate Gaps (in pedestrian networks)
- M-3.1 Serving All Users
- M-5.1 Pedestrian Needs
- M-5.6 Safe Pedestrian Crossings
- M-6.2 Encourage Bicycle Use

PUBLIC CONTACT

There has been no public contact related to this project to date.

NEXT STEPS

February 2020:	Submit approval of plans, specifications and call for bids for Council's approval
March 2020:	Bid Opening
April 2020:	Award of Contract
May 2020:	Start of Construction
September 2020:	End of Construction

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Recommended by: Alex Ameri, Director of Public Works

Approved by:



Kelly McAadoo, City Manager