



DATE: February 25, 2020

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Adopt a Resolution Approving Plans and Specifications and Call for Bids for the FY20 Pavement Improvement Project Nos 05222, 05224, 05226, 05232, and 05289

RECOMMENDATION

That Council adopts a Resolution (Attachment II) approving the plans and specifications for the FY20 Pavement Improvement Project, calling for bids to be received on March 24, 2020.

SUMMARY

The FY20 Pavement Improvement Project calls for the rehabilitation of fifty-three street sections and preventive maintenance of sixty street sections for a total of 113 street sections (Attachment III). The proposed improvements will repair failed pavement sections and improve street surfaces.

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

The Council Infrastructure Committee considered this item on January 22, 2020. The Committee reviewed and approved the selection of street for the FY20 Pavement Improvement Project.

BACKGROUND

On April 9, 2019¹, Council approved a project list for the SB1 FY20 Pavement Improvement Funding, as a resolution was required to apply for the California Transportation Commission (CTC) to receive \$2,758,000 for pavement improvement.

On July 9, 2019², Council adopted a resolution authorizing the City Manager to execute amendment No. 1 to professional services agreement with Pavement Engineering, Inc., (PEI)

¹ <https://hayward.legistar.com/LegislationDetail.aspx?ID=3911293&GUID=9A5AB5E1-A365-4A91-A637-E1BB8F9E1232&Options=&Search=>

² <https://hayward.legistar.com/LegislationDetail.aspx?ID=4056927&GUID=3AE9FAB4-B3D2-485F-8360-126E81AC20CD&Options=&Search=>

for engineering services associated with the FY20 Pavement Improvement Project. The scope of work for PEI is limited to engineering review, pavement evaluation, measurement of field quantities, curb ramp design, and construction support.

On January 22, 2020, the Council Infrastructure Committee (CIC) reviewed the FY20 Pavement Improvement Project, including street selection criteria, treatment types, and budget allocations.

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)³ 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.

³ The PMP is a Metropolitan Transportation Commission (MTC) recommended software program.

- **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. |
| 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. |

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 | 22% | 7% |
| Streets with PCI Less than 30 | 10% minimum | 18% | 8% |

This selection requires both judgement and experience. PEI, Inc., will confirm the selection of streets sections, the approximate level of treatment for each and provide engineering support services.

New bike lane striping will be installed for the following locations:

Class II Bike Lanes:

- Huntwood Way from Whipple Road to Schafer Road (0.7 miles).
- Clawiter Road from Eden Landing Road to Industrial Boulevard (1.1 miles).

This project is categorically exempt under Section 15301(c) of the California Environmental Quality Act Guidelines for the operation, repair, maintenance, or minor alteration of existing facilities.

ECONOMIC IMPACT

The project is funded by City's CIP and State Road Repair and Accountability Act (SB1) funds.

STRATEGIC ROADMAP

This agenda item supports the Strategic Priority of Improve Infrastructure. Specifically, this item relates to the implementation of the following projects:

Project 5, Part 5.a: Maintain and improve pavement; Maintain Pavement Condition Index (PCI) at 70.

Project 8, Part 8.b: Implement the Bike & Ped Master Plan; Add 10 lane miles of bike lanes per year. This project will be adding 1.8 miles of bike lanes which will contribute to the goal of adding 10 miles of bike lanes per year.

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> |

Total: \$12,045,000

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

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 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

Immediately after the construction contract is awarded, a preliminary notice explaining the project will be posted and distributed to all residents and businesses along the affected

streets. After the construction work has been scheduled, signs on barricades will be posted seventy-two hours prior to commencement of work indicating the date and time of work for each street. Residents will be advised to park their vehicles on side streets outside of the work area during the period when the streets are being treated.

NEXT STEPS

| | |
|----------------|-----------------------|
| March 24, 2020 | Bid Opening |
| April 2020 | Award of Contract |
| May 2020 | Start of Construction |
| September 2020 | End of Construction |

Prepared by: Kathy Garcia, Deputy Director of Public Works

Recommended by: Alex Ameri, Director of Public Works

Approved by:



Kelly McAdoo, City Manager