

**City of Culver City, California
Agenda Item Report**

Meeting Date: 06/22/15		Item Number: <u>A-4</u>	
CITY COUNCIL AGENDA ITEM: Receive and File the Presentation of an Update to Culver City's Pavement Management Program, PZ-546			
Contact Person/Dept.: Mate Gaspar/PW		Phone Number: (310) 253-5602	
Fiscal Impact: Yes ☒ No ☐		General Fund: Yes ☒ No ☐	
Public Hearing: ☐		Action Item: ☐ Attachments: ☐	
Commission Action Required: Yes ☐ No ☒		Date: _____	
Public Notification: (E-Mail) Agenda and Meetings – City Council (06/18/15)			
Department Approval: Charles D. Herbertson (06/11/15)		City Attorney Approval: Carol Schwab (by H. Baker) (06/16/15)	
Chief Financial Officer Approval: Jeff Muir (by M. Noller) (06/16/15)		City Manager Approval: John M. Nachbar (06/16/15)	

RECOMMENDATION:

Staff recommends the City Council receive the presentation of the update to the Pavement Management Program.

BACKGROUND:

In order to be eligible to receive Federal and County highway funds, a municipality is required to routinely inspect and rate each street segment utilizing a pavement management program. The City uses the Army Corp of Engineers software, MicroPaver, to manage the street network. This software is the most widely used in the country. The City has utilized specialized consultants over the years to review the defects on each street segment based on Army Corp of Engineers' standards and enter the data into the MicroPaver pavement management program. The program then assigns a pavement condition index (PCI) on a scale of 1 to 100 (with 100 being the best rating).

The program also provides recommendations on the maintenance application of each street segment. Typically, streets rated 80 to 100 are considered to be in excellent condition and maintenance is not required. Streets rated 60 to 80 are recommended to receive a thin layer of slurry seal in order to prolong the pavement life before a costlier asphalt overlay is required. Streets rated below 60 are recommended to receive an asphalt overlay. Streets rated below 20 may have to be completely reconstructed due to large areas of asphalt failure.

On October 13, 2014, the City Council approved a professional services agreement with Bucknam Infrastructure Group, Inc., to update the Pavement Management System, for a not-to-exceed cost of \$77,030.

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DISCUSSION:

Bucknam has successfully completed the update to the Pavement Management Program without any change orders. There are approximately 121 miles of streets in the City including alleys. The streets were surveyed by automated digital roadway imaging with a mobile van unit. While the pavement inspection occurred, the mobile van also did a GPS survey of the following City assets: street lights, curb markings, parking meters, and pavement markings. The data has now been linked with the City's enterprise GIS system to provide mapping in support of managing these City infrastructures. Such data would make possible creating maps for visualization and analysis, while also expanding information available for other departments. For example, deliverables for pavement and curb markings may aid in more mapping details that could be useful for the Police Department's traffic and parking enforcement efforts. Also the information can be provided to the City's design consultants as well and save costs on field surveys.

Summary highlights of the Pavement Management Program:

- The overall condition (asphalt and concrete) of the City's pavement network is "Fair" with a weighted average PCI of 69.8 without alleys and 67.4 with alleys.
- The weighted average PCI for the Arterial/Collector street network (asphalt and concrete) is 67.7.
- The weighted average PCI for the Local/Residential street network (asphalt and concrete) is 71.7.
- About 85% of the entire City streets network is constructed with asphalt.
- The Arterial/Collector asphalt network PCI is 68.4 and is considered to be in "Fair" condition.
- The Local/Residential asphalt network PCI is 75.2 and is considered to be in "Good" condition.

PCI RANGE CONDITION
86-100 Very Good
75-85 Good
60-74 Fair (Culver City Network 2015 = 69.8)
41-59 Poor
0-40 Very Poor

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The Local/Residential street network represents 53% of the entire roadway system. In 2008 and 2011, the weighted average PCI of the Local/Residential street network was 53.2 and 65.4, respectively. Utilizing funds appropriated by the City Council, Staff has been aggressively resurfacing the asphalt Local/Residential Street network since 2006. As a result the PCI ratings have significantly improved from a "Poor" condition to "Good" condition.

The Arterial/Collector street network represents 41% of the entire roadway system. These streets are typically funded for repaving with annual allotted Federal Highways funds. Congress has not yet passed a comprehensive reauthorization of the Transportation Highway Bill. As currently written, the extensions to the current Highway Bill provide Culver City about \$117,000 a year. Repaving one mile of a four lane arterial street is about \$1 million. The City will have to rely on local General and State Gas Tax funds for repaving arterial streets.

About 15% of the street system consists of concrete paving. Washington Boulevard, west of Sepulveda Boulevard to the westerly City limits, was constructed in the 1940s and 1950s. Concrete has a much longer service life than asphalt. Reconstructing these streets entirely is cost prohibitive. Currently, small sections of the concrete streets are being reconstructed based on available budget. At some point in the future, new additional funding will have to be budgeted for West Washington Boulevard and residential concrete streets. Staff is investigating new technologies such as edge grinding and overlay with asphalt. The City of Santa Monica recently performed this new technology, and staff will monitor its outcome. The PCI for the arterial/collector concrete network is 62.3 (Fair). The PCI for the Local/Residential concrete network is 26.7 (Very Poor) condition.

The PCI for the paved Alley Network is 14.7 and is considered to be in "Very Poor" condition. The alleys are only maintained by filling potholes. Staff also grades the unpaved alleys once a year to provide for proper drainage. There is a capital improvement project for the fine grading of several unpaved alleys. The Alley Network will require new additional funding in the future as it will come to a point that the alleys will need to be completely reconstructed.

The report recommends that in order to maintain the current PCI levels of the entire City road network, approximately \$5 million is required for the next 5 years. In order to increase the PCI to 72, the report recommends an additional \$3 million (for a total of \$8 million) for the next 5 years.

After 9 years of resurfacing residential streets, staff will be shifting the rehabilitation of the City streets to arterial streets for the next several years.

The Final Report of the 2015 Update to the Pavement Management Program is available at the Public Works Department.

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FISCAL ANALYSIS:

The Fiscal Year 2014/2015 Capital Improvement Program budgeted \$789,000 for residential street paving (PZ-863) and \$618,000 of accumulated Federal Highway funds for resurfacing of Washington Place from Zanja Street to Frances Avenue and the asphalt portion of Sawtelle Boulevard from Braddock Drive to Washington Place (PZ-942).

The proposed Fiscal Year 2015/2016 Capital Improvement Program budget includes \$140,000 for residential street paving or slurry seal (PZ-863), \$982,000 for arterial street resurfacing (PS-005), and \$100,000 for fine grading of several unpaved alleys (PZ-295).

MOTION:

Receive and file the presentation of the 2015 Update to the Pavement Management Program.