



CITY OF FORT LAUDERDALE
City Commission Agenda Memo
CONFERENCE MEETING

#14-1080

TO: Honorable Mayor & Members of the
Fort Lauderdale City Commission

FROM: Lee R. Feldman, ICMA-CM, City Manager

DATE: September 3, 2014

TITLE: Annual Microsurfacing Project Update - P11945

The purpose of this memorandum is to provide an update regarding the Microsurfacing project underway.

Background:

The City worked with a consultant to comprehensively evaluate the condition of existing roads based on the Pavement Condition Index (PCI and Exhibit 1), which uses a number between 0 and 100 to indicate the condition of pavement. Under the PCI, 100 represents the best possible road condition and 0 represents the worst possible condition. Knowing the condition of roads then helps in determining future funding needs, assists with effectively prioritizing improvements, and aids with the allocation of available resources to ensure resources are targeted where resources will have the greatest impact.

As roads deteriorate from 'Good' (PCI 86 to 100) to 'Fair' (PCI 56 to 70) or 'Poor' (PCI 41 to 55), condition repairs become more expensive at an exponential rate. For that reason, the City is currently taking an approach focused on extending the lifespan of roads identified as 'Fair' (Exhibit 2) because if these roads are not maintained, their condition will worsen and they will fall into the 'Poor' category, which can cost up to five times as much to repair in comparison to repairing a road in the 'Fair' category.

On June 3, 2014 the City Commission awarded a three-year contract for the installation of Microsurfacing pavement to Asphalt Paving Systems, Inc. (CAM 14-0647). While this company is headquartered in Hammonton, New Jersey, the company also has a business office in Zephyrhills, Florida and has done work for a number of municipalities throughout Florida including Tampa, West Palm Beach, Lake Worth, Lakeland, and Largo.

Approved Task Order 1 was issued in the amount of \$2,245,000.00, the Notice to Proceed was issued on June 10, 2014, and the issued Task Order 1 completion date is September 30, 2014. Work includes crack seal, the installation of an estimated 465,000

square yards of Microsurfacing paving material (36 miles), and thermoplastic pavement markings.

Microsurfacing is a sustainable product, consisting of recycled material, that uses a 5/8-inch asphalt polymer-modified cold mix aggregate sealant to extend the life of a roadway by seven to ten years. Microsurfacing can also be done at a much lower cost (\$5 per square yard) than conventional 3-inch milling and paving (\$27 per square yard). This process allows the City then to maximize available funding to resurface the greatest number of miles of roadway at this time. Had the City taken the approach of only fixing roads with a Poor PCI rating or lower, then only a few miles (three to five) throughout the City would have been fixed and the condition of the roads with a PCI in the Fair category, would have continued to deteriorate, costing our Neighbors more in tax dollars over time.

This process is vastly different than traditional milling and paving, or even the application of a one-inch asphalt overlay (\$9 per square yard with the same life-span of Microsurfacing), as it requires much less labor and equipment. Microsurfacing is performed in a multi-step process that includes: 1) crack sealing (to prevent water from seeping under the installed materials), 2) application of a 5/8-inch asphalt polymer-modified cold mix aggregate sealant, and 3) installation of thermoplastic pavement markings. All of this work is performed within an approved Maintenance of Traffic Plan (MOT). Additionally, the City's Neighbors are advised ahead of time of work to occur on their street via a flyer (previous version and updated version attached as Exhibits 3 and 4).

Project Status:

Work began June 10, 2014 with the contractor performing crack sealing on all roads identified in Task Order 1. Now the contractor is applying the 5/8-inch asphalt polymer-modified cold mix aggregate sealant and temporary striping. Permanent thermo-striping will be applied 30 days after the 5/8-inch asphalt polymer-modified cold mix aggregate sealant application is completed as prescribed by the striping manufacturer in order to ensure a good bond between pavement and striping. Additionally, the project is progressing quickly as the contractor brought in two crews to perform the work and averages about eight to ten miles per week, depending upon the weather.

Challenges:

The City has received a number of neighbor concerns during the execution of this project. Staff has been working to address concerns raised and has been holding the contractor accountable to address any challenges that have arose regarding quality of work. Overall, all concerns raised can be categorized into expectations and quality control.

With regard to expectations, some neighbors had the expectation that they would receive conventional milling and paving services. As such, they were not familiar with Microsurfacing (for comparison purposes see Exhibit 5). Many of the concerns have

been aesthetically related, i.e. the street did not look the way neighbors expected because they were unfamiliar with the process itself.

To aid with this challenge, staff continues to utilize various mediums to proactively communicate efforts, including the use of Nextdoor, coordinating a presentation to the Council of Civic Associations in collaboration with Neighbor Support and the Public Affairs Office, and reaching out to impacted Homeowner Association Presidents whose neighborhoods will be impacted by the City's remaining efforts via Neighbor Support.

Regarding quality control, there has been a number of quality related complaints, i.e. drag marks, divots, ridges, stained driveways, MOT concerns, etc. The City has met with the contractor's regional manager and developed a re-work plan to fix these challenges. The City has also increased inspection resources and is working with the contractor to address quality issues as they arise proactively to prevent further problems. Having said that, this product cures over several weeks as moisture and oils leave the material and result in a durable driving surface. During this time, if small twigs or objects were caught in the surface of the pavement, they will eventually fall out. Instances like these usually result in a slight indentation in the very top surface that with time and traffic will smooth out and become unnoticeable. The same can be said for the 'tire picking'. This occurs when vehicles turn their wheels sharply leaving a roughed up surface where the tire rubs on the roadway. These minor surface abrasions too will fade with time and do not affect the overall condition of the roadway.

Next Steps:

Given that the City is close to completing Phase I of the microsurfacing initiative, staff is targeting our communications primarily to the affected neighborhoods, as that appears to be where most of the concerns are emanating from. Staff has revamped the informational flyer that the contractor uses, added more information to the City website, posted the link prominently on the homepage as the top item under "Announcements," and sent a blast email with the information to affected neighborhoods via Nextdoor. Staff has also utilized Twitter and Instagram to send examples of the quality Microsurfacing work being done right outside City Hall.

Neighbor Support is personally reaching out to Homeowner Association presidents and key contacts in neighborhoods affected to alert them of upcoming work and address any outstanding issues or concerns. Staff has also positioned 24-hour Customer Service Center as a point of contact in our communications.

Prior to the start of Phase II in Fiscal Year 2015, staff will expand our communications even further by meeting with the Council of Civic Associations and using more of our tools to reach neighborhoods well in advance of when work will begin on their streets.

For this particular effort, and in an effort to execute a large amount of work in a short amount of time, City staff elected to utilize a moving MOT, using flaggers instead of full street closures. In fiscal years to come, staff will re-evaluate this approach as many issues arose from not being able to keep cars from driving on newly surfaced roadways

resulting in needed re-work and complaints.

Staff will also develop a plan to address the streets with a PCI of 'Poor', 'Very Poor', and 'Failed' categories as these represent collectively just over 5% of the City's roads (Exhibit 2) for Commission consideration.

A representative from Asphalt Paving Systems, Inc. will be at the Conference to address any further questions.

Strategic Connections

This item is a *Press Play Fort Lauderdale Strategic Plan* initiative, included within the Infrastructure Cylinder of Excellence, specifically advancing:

- Goal 1: Be a pedestrian friendly, multi-modal City.
- Objective 2: Improve transportation land use and planning to create a walkable and bikeable community.

This item advances the *Fast Forward Fort Lauderdale 2035 Vision Plan: We Are Connected*

Attachments

Exhibit 1 – PCI

Exhibit 2 – PCI Summary – City of Fort Lauderdale

Exhibit 3 – Previous Flyer

Exhibit 4 – Updated Flyer

Exhibit 5 – Microsurfacing Versus Conventional Milling and Paving

Prepared by: Jeffrey Benjamin, P.E., Construction Manager
Talal Abi-Karam, P.E., Assistant Public Works Director - Engineering

Department Director: Hardeep Anand, P.E., Public Works Director