

CITY OF SANTA ROSA
CITY COUNCIL

TO: MAYOR AND CITY COUNCIL
FROM: JASON NUTT, DIRECTOR OF TRANSPORTATION & PUBLIC
WORKS

SUBJECT: PROPOSED NEIGHBORHOOD STREETS INITIATIVE

AGENDA ACTION: MOTION

RECOMMENDATION

It is recommended by the Transportation and Public Works Department that the Council, by motion, direct the Finance Department to include funding the Neighborhood Street Initiative in the amount of \$3,000,000 within the FY 2016-17 budget and direct staff to implement the program recommendations from the Community Advisory Board.

EXECUTIVE SUMMARY

Staff will present a proposal requesting that Council fund and initiate the development of a new program titled Neighborhood Streets Initiative. This initiative would dedicate General Fund resources to maintaining and improving neighborhood area streets. Staff presented this initiative to the Community Advisory Board on May 25, 2016 discussed various options for implementing the program should Council agree to fund it and will be presenting the Community Advisory Board's implementation recommendations for consideration.

BACKGROUND

In February 2016, the City Council identified its top five priorities for FY16/17, which included a priority titled, "Create a plan to deal with infrastructure and deferred maintenance throughout the community." While this plan will include a wide range of infrastructure such as parks, facilities, digital, water & sewer and transit, staff believes it is critical to provide an additional focus on the roadway pavement component.

Maintaining our local transportation infrastructure supports two Council Goals:

- City Council Goal 2B, specifically Strategic Objective 2 – Develop Funding plan for long-term Unfunded Liabilities, including Labor and Infrastructure, to Achieve Fiscal Sustainability.

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- City Council Goal 3 – Provide Leadership for Environmental Initiatives, specifically Strategic Objective 1 – Improve Transportation Network to Reduce Vehicle Miles Traveled and Promote Multi-Modal Transportation.

The City is responsible for maintaining 492 center line miles (1,094 lane miles) of local streets and roads, with streets varying from two-lane (residential) streets to six-lane (arterial) streets. With an annual average maintenance budget of approximately \$5.5 million dollars, Santa Rosa's three-year average Pavement Condition Index (PCI) has steadily declined to 60, with the Bay Area average PCI being 66. Santa Rosa's street quality ranks 82nd out of 109 Bay Area cities.

Santa Rosa's local streets and roads form the foundation of providing access to jobs, homes, schools, shopping, recreation and health and social services. They are the required infrastructure for commerce, transit, and active transportation modes. Sewer and water mains and trunk lines are predominately located beneath the surface network of Santa Rosa's local streets and roads.

A recent report prepared by TRIP, a National Transportation Research Group, ranks the "Santa Rosa Area" third in a list of 25 urban regions with a population between 250,000 and 500,000 with the greatest share of major roads and highways with pavements that are in poor condition and provide a rough ride. This percentage is largely based on the road network condition in the unincorporated area of Santa Rosa. The analysis is based on an IRI (International Roughness Index) which evaluates "ride quality" and not road stability, such as PCI (Pavement Condition Index), which is the predominant metric for the Bay Area.

According to the TRIP report, the average motorist in the Santa Rosa area is spending an estimated \$811 per year in additional vehicle operating costs as a result of driving on roads in need of repair.

The Metropolitan Transportation Commission (MTC) uses the Pavement Condition Index (PCI) to rate streets from Excellent (score of 90-100) to Poor (score of 0-49). This methodology is utilized consistently among all Bay Area agencies and provides a good gauge on remaining serviceable life, ride quality and anticipated maintenance costs.

In order to be eligible for regional discretionary funds, MTC requires a jurisdiction to have their Pavement Management Program (PMP) certified by MTC. Most jurisdictions in the Bay Area, including Santa Rosa, are using StreetSaver® as the PMP. StreetSaver® is used to help identify both maintenance needs and a cost effective pavement capital program to address those needs. The program inputs consist of the length, width, surface type, functional classification and current pavement condition for each road. The program then applies a complex algorithmic model to predict how each road will deteriorate over time, when and what type of pavement maintenance or repair treatment is appropriate and the cost of the treatment. The software focuses on providing cost effective recommendations that enhance the overall system PCI.

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StreetSaver® provides informed and timely solutions to implement pavement management programs. It includes the following analysis tools – Budget Needs, Budget Scenarios, Target Driven Scenarios and Project Selection. StreetSaver® prediction model can project maintenance treatments and costs up to 30 years.

Based on the limited current available funding, it is clear that the City does not have the resources to sustain its current pavement condition.

To prioritize in what order streets should be reconstructed, the City has developed a method to help rank what the overall benefit to the community is and compares that to other streets that require a reconstruction. Several factors used to aid in the ranking of the streets include: the average daily traffic, bus routes, emergency response route designation, bike lanes (existing or planned with reconstruction project), and parking (paving for parking decreases the ranking). Additionally, if other underground Capital Projects are planned for the roadway which are in need of repair, then underground utilities will be coordinated with the surface street improvements.

Transit routes and the presence of bike lanes also have a significant weight in this ranking due to maintaining service needs, on-time performance in addition to the comfort and ease of cycling. As asphalt breaks down, cyclist then tend to utilize the portion of the bike lane closer to the travel lane, where the asphalt and debris is less prevalent. This is exacerbated by heavy vehicles, such as transit, that operate in the shoulder lane accelerating the degradation of the pavement. As the pavement condition declines, transit vehicles must reduce speeds and eventually avoid certain areas where the condition could ultimately damage the vehicle. Within the 492 road miles are 93 miles of streets that serve transit routes and 120 miles of on-street bikeways.

Recent evaluations of the decline of the City's pavement condition have concluded that we will need to spend \$18 million per year just to maintain the existing pavement conditions at 60. Unfortunately, over the past few decades there has been a declining trend in investment for transportation infrastructure. This has been due primarily to declining gas tax revenues and unfavorable state and federal formulas allocating transportation infrastructure funding.

Staff has evaluated a number of different scenarios to help determine a course of action to begin making progress at maintaining our roadways. The following are some highlights:

- To fix all of our streets that are PCI <25 over 7 years it would take \$203,119,000.
- To get to a network average PCI of 65 over 5 years it would take \$121,131,000 (\$24,226,000/year). It would then take about \$19,206,000/year to maintain a PCI of 65.
- To get to a network average PCI of 65 over 10 years it would take \$238,979,197 (\$23,897,920/year). It would then take about \$18,662,000/year to maintain a PCI of 65.

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As mentioned previously, the average PCI in Santa Rosa is 60. Staff has broken this down by roadway classification to determine if addressing roads by classification or treatment type would result in a positive impact. Pavement condition by classification are shown below:

Classification	Lane Miles	Percentage	PCI (2014)
Arterial	307	28%	64
Collector	162	15%	60
Residential	625	57%	59
Total	1,094	100%	60 (Good)

StreetSaver® focuses recommendations on maintaining good roads in good condition over reconstructing failed roads. Based on the average life cycle of an asphalt roadway, it is possible to maintain a road in good condition up to 75 percent of the useful life (roughly 15 years). If done properly, this can be sustained well into the future. Once a roadway passes that point, its degradation accelerates dramatically, significantly increasing the costs of maintenance. It is least expensive to maintain a street in good condition than to allow it to deteriorate and reconstruct it at a later date. The average cost of street maintenance is:

- \$3 Per square yard for slurry seal (preventative maintenance)
- \$10 Per square yard for micro-surfacing (preventative maintenance)
- \$41 Per square yard for resurfacing (less than 3 inch overlay)
- \$47 Per square yard for heavy resurfacing (3 inch overlay)
- \$172 Per square yard for reconstruction

When reviewing streets that have degraded passed the typical maintenance of micro-seal and overlays, and the base and or subgrade of the roadway structural section has failed, a reconstruction of the street is required. This typically occurs when the Pavement Condition Index reaches 25 but could occur beforehand if the base or subgrade has failed. Applying a maintenance scheme to a street with a failed base is not cost effective especially if the placement of asphalt is done on an unstable failed subgrade. This would yield little extended life to the roadway. Reconstruction of a street is the most expensive treatment and is a result of prior neglect.

PRIOR CITY COUNCIL REVIEW

There have been several updates on the state of the City's pavement condition and financial deficiencies, with the most recent occurring as a discussion relating to Sonoma County's Measure A in June 2015.

ANALYSIS

In an effort to begin making a positive impact on the City's pavement condition in a way that is visible and meaningful for the general public, staff is recommending that the Council utilize one-time unallocated general fund resources to increase the amount of pavement preservation work for the upcoming fiscal year.

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Since the City has some identified funding resources for its arterial and collector roads through gas tax, Measure M (regional ¼ cent sales tax for transportation improvements), development impact fees and Federal funding programs, it seems appropriate to focus local funds on maintaining more local neighborhood oriented streets. In that regard, staff has created a framework for a Neighborhood Streets Initiative that would invest \$3 million of unallocated general fund resources one-time to neighborhood area streets this coming fiscal year and develop a public engagement process that would help select candidate roads in the future should additional local roadway funding be identified.

On May 25, 2016 staff presented the Neighborhood Streets Initiative to the Community Advisory Board (CAB) with a description of how staff selects candidate streets and associated maintenance treatments. The CAB members were educated on the current condition of our city streets as well as the current funding deficiencies to maintain our streets in good condition. Staff outlined the prioritization factors used in selecting candidate streets and how they would be equitably distributed throughout the city.

Recognizing the interest in having this \$3 million investment placed on the streets this construction season, staff outlined a series of recommendations that included maintenance treatments on neighborhood area roads in all of the four quadrants of the city. Arterials were excluded from consideration, but some neighborhood collector streets were identified. Treatments included a combination of both slurry seal and asphalt overlay in an effort to demonstrate a larger impact for the communities.

CAB members were encouraged to provide feedback on the prioritization factors, distribution methodology and treatment type selection. In general, the CAB appreciated the education on the current condition of our roadway infrastructure and enhanced understanding of the financial challenges associated with the maintaining our roads in good condition. They debated whether a quadrant, district or need based distribution would be most appropriate given the overall challenges. While the CAB agreed to support the staff's recommendation of a quadrant based distribution, several of the members recommended that we continue the conversation around a need based approach. In addition, the CAB members appreciated the concept of focusing funds on neighborhood area streets, but recommended that volume, classification and functional characteristics and equity be utilized as the primary factors for selecting candidate streets. They specifically requested that cul-de-sac and dead-end streets be given very low priority

The CAB also recommended that staff continue to work with them to develop a long-term community engagement strategy that would help educate the greater community on the condition of our road funding and encourage public participation in the selection of candidate streets should additional road maintenance funding be identified in the future.

FISCAL IMPACT

Staff is recommending that the Council direct the Finance Department to include \$3 million of General Fund resources in the FY 2016-17 budget for the neighborhood street initiative.

ENVIRONMENTAL IMPACT

This action is exempt from the California Environmental Quality Act (CEQA) because it is not a project which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, pursuant to CEQA Guideline section 15378.

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

The Community Advisory Board reviewed the proposed initiative and made an implementation recommendation for Council's consideration on May 25, 2016.

NOTIFICATION

Not applicable

ATTACHMENTS

- Attachment 1 – Candidate Streets – Northwest Area
- Attachment 2 – Candidate Streets – Northeast Area
- Attachment 3 – Candidate Streets – Southwest Area
- Attachment 4 – Candidate Streets – Southeast Area
- Attachment 5 – Technical Terms
- Attachment 6 – Draft Pavement Prioritization Plan

CONTACT

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