

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Dennis Hawkins, CMC
City Clerk

SUBJECT: PAVEMENT MAINTENANCE

DATE: 3-14-12

RECOMMENDATION

As recommended by the Transportation and Environment Committee on March 5, 2012 and outlined in the attached memo previously submitted to the Transportation and Environment Committee, accept the status report and:

- (a) Approve the designation of a "Priority Street Network" representing approximately 400 miles of the City's street system as the priority for near-term pavement maintenance activities based on the criterion set forth in the Envision 2040 policies related to Grand Boulevards and Main Streets, economic development, transit and bicycle corridors, traffic volumes, and major roadways in residential areas;
- (b) Direct staff to continue to pursue opportunities to facilitate increased funding for pavement maintenance to secure a total funding investment of \$100 million annually, by considering the following:
 - (1) Evaluation of a possible San José parcel tax, bond measure and/or sales tax to substantially address pavement maintenance funding needs;
 - (2) Evaluate extending and amending the current ½-cent sales tax for transportation in Santa Clara County, allowing use of funds for local pavement maintenance consistent with many other counties in California; and
 - (3) Advocate for timely approval of a new Federal transportation bill that increases overall investment for transportation and with support for local pavement maintenance.



Memorandum

TO: TRANSPORTATION AND
ENVIRONMENT COMMITTEE

FROM: Hans F. Larsen

SUBJECT: PAVEMENT MAINTENANCE

DATE: 02-21-12

Approved

Date

2/24/12

RECOMMENDATION

1. Accept status report on San José pavement conditions and funding levels acknowledging the following:
 - a. The overall condition of San José's 2400-mile street system is rated as "fair" and is declining due to age and a lack of available funds for maintenance. Recent surveys of San José residents rate the satisfaction level for "street repair" services as the lowest among all major City services.
 - b. Projected funding for pavement maintenance over the next five years is only sufficient to address 18% of need, with an average of \$18 million annually available to address a \$100 million annual investment need. The funding need is based on achieving an overall "good" street condition, a Pavement Condition Index (PCI) rating of 70.
 - c. The estimated cost to address the current backlog of deferred pavement maintenance has grown to \$293 million and by 2020 will escalate to \$860 million if funding levels are not increased. Correspondingly, the number of San José streets in "poor" condition will increase from 500 miles (21% of street system) to 1275 miles (54%).
2. Forward this report to the City Council and recommend the City Council take action on the following:
 - a. Approval of the designation of a "Priority Street Network" representing approximately 400 miles of the City's street system as the priority for near-term pavement maintenance activities based on the criterion set forth in the Envision 2040 policies related to Grand Boulevards and Main Streets, economic development, transit and bicycle corridors, traffic volumes, and major roadways in residential areas.
 - b. Direct staff to continue to pursue opportunities to facilitate increased funding for pavement maintenance to secure a total funding investment of \$100 million annually, by considering the following:

- i. Evaluate a possible San José parcel tax, bond measure and/or sales tax to substantially address pavement maintenance funding needs.
- ii. Evaluate extending and amending the current ½-cent sales tax for transportation in Santa Clara County, allowing use of funds for local pavement maintenance consistent with many other counties in California.
- iii. Advocate for timely approval of a new Federal transportation bill that increases overall investment for transportation and with support for local pavement maintenance.

BACKGROUND

The overall deteriorating pavement conditions along San José streets and the lack of sufficient funding for street repairs is a serious concern and the topic of regular discussion by the City Council and the Transportation and Environment Committee. On October 12, 2010, the Mayor and City Council held a special Pavement Maintenance Study Session to gain a current understanding of the City's pavement conditions, trends and funding shortfalls, as well as to discuss goals, funding alternatives and strategies to address pavement maintenance needs. As part of the next steps identified at the Study Session was direction to provide periodic status reports on the topic of pavement maintenance to the Transportation and Environment (T&E) Committee, and as needed to the full City Council.

An update report on pavement maintenance was presented to the T&E Committee on October 3, 2011 and was subsequently discussed by the City Council on October 25, 2011. In light of the very limited funds available for pavement maintenance, the City Council endorsed a direction for staff to develop priorities for future street maintenance that considers Envision 2040 and economic development policy goals. The City Council also approved recommendations from Councilmember Rocha (see Attachment 1) directing the consideration of major roads serving residential areas in the prioritization process, and directing staff to return to the T&E Committee in March 2012 with a follow up report.

Consistent with prior City Council direction, the intent of this report is to: 1) review current status and trends related to the City's pavement conditions and pavement maintenance funding sources, 2) approve a set of priority streets for near-term future pavement maintenance work, and 3) identify best opportunities to significantly increase funding for pavement maintenance to meet Citywide needs.

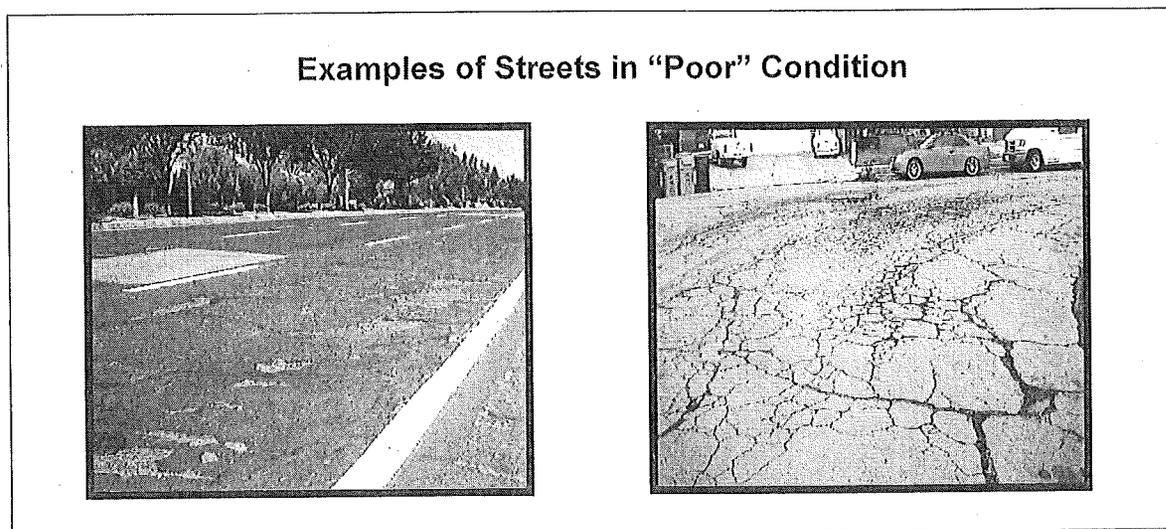
ANALYSIS

Current Status of San José Pavement Conditions and Maintenance Efforts

Prior staff reports from the October 2010 Pavement Maintenance Study Session and the October 2011 T&E Committee meeting have provided detailed analysis on the City's current pavement conditions. Some of the key findings along with relevant updates are as follows:

- Condition Factors - The overall condition of San José's pavement infrastructure (approximately 2400 miles of streets) is declining based on factors related to age, insufficient past funding for "preventative" maintenance (sealing), increasing need for more costly "corrective" maintenance (pothole repair and rehabilitation), and generally escalating costs for paving materials and labor.
- Current Pavement Conditions - The City's overall pavement condition is rated as "fair" with a Pavement Condition Index (PCI) rating of 64. San José's 800 miles of major streets have an overall "good" rating (PCI 74); San José's 1600 miles of local and neighborhood streets have an overall "fair" rating (PCI 59). San José's major streets are in better overall condition since most Federal and some State funding grants obtained by the City for pavement maintenance are targeted for use on major streets.

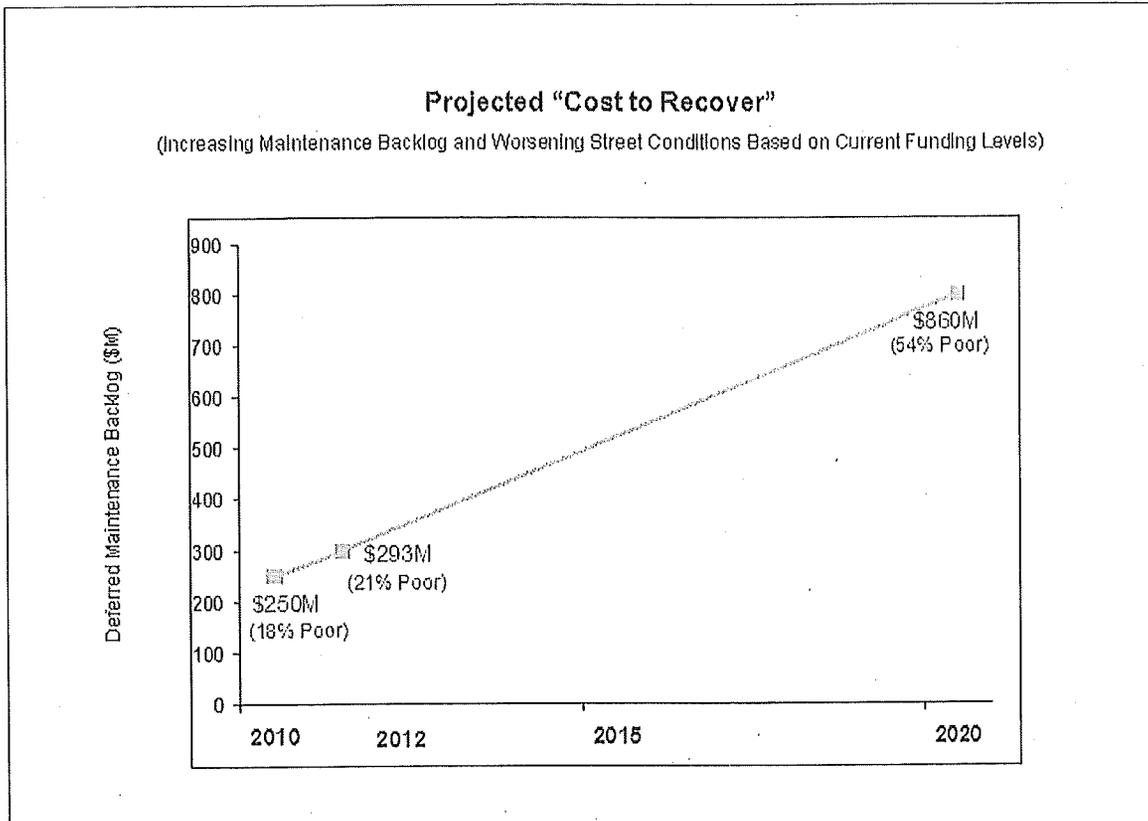
Figure 1



- Funding Need and Shortfall - To improve and maintain San José streets in an overall "good" condition (PCI 70) an estimated \$100 million needs to be invested annually over the next 10 years. Currently, projected funding from all sources is approximately \$18 million annually, on average, over the next 5 years, resulting in an average annual shortfall of \$82 million.
- Deferred Maintenance Backlog - Primarily due to a lack of available funding over the past few years, San José's estimated backlog of deferred pavement maintenance has increased from \$250 million (in 2010) to \$293 million (in 2012); the quantity of streets in "poor"

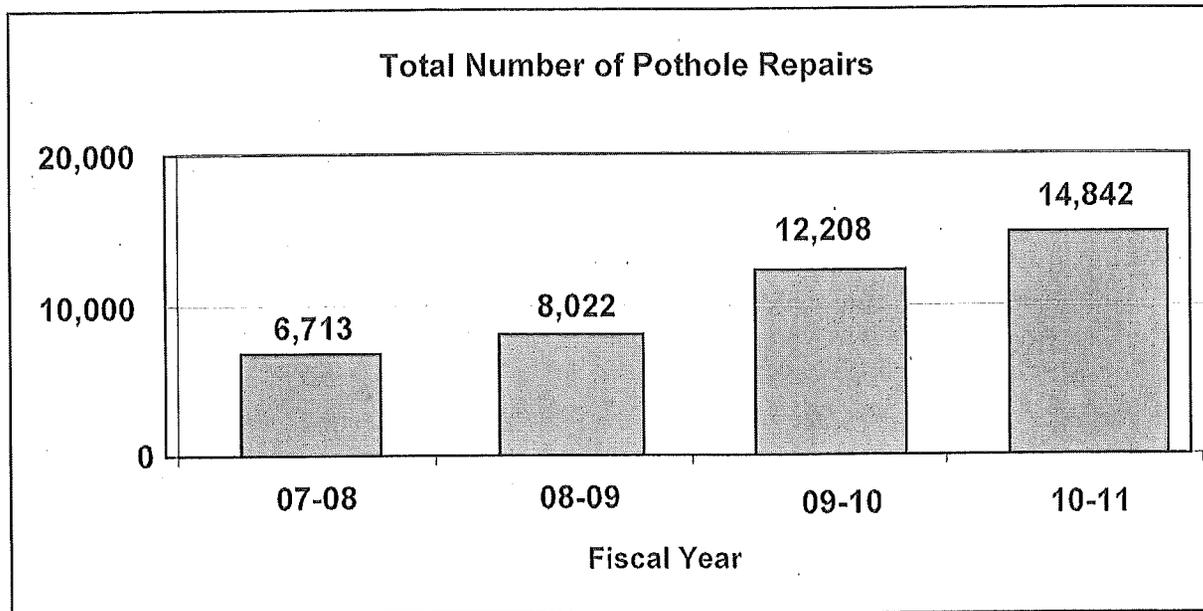
condition has correspondingly increased from 425 miles (18%) to 500 miles (21%). If funding levels are not increased, the backlog will escalate to \$860 million by 2020 and with 1275 miles of streets in "poor" condition (54%). See chart in Figure 2.

Figure 2



- Increasing Need for Pothole Repairs -With the lack of funding available for preventive pavement maintenance resulting in continued deterioration of roadways, the need for corrective maintenance, such as pothole repairs continues to grow. Over the last four years, the number of potholes repaired has increased 120% from 6,713 in FY 2007-08 to 14,842 in FY 2010-11 (see Figure 3).

Figure 3



- *New Innovations in Pavement Rehabilitation* - In Fall 2011, the Department of Transportation (DOT) successfully implemented an innovative new pavement recycling and rehabilitation process on Monterey Highway (between Blossom Hill Road and Bernal Road) referred to as Cold in Place Recycling (CIR). Compared to conventional methods, the project resulted in cost savings of 23% and used 17,000 recycled tires for the finished pavement surface. Although this method can only be used in certain situations, DOT staff is looking to expand the use of the CIR process on major streets currently in “poor” condition.
- *State Route Relinquishments* - In December 2011, the California Transportation Commission approved the City/Caltrans agreement to relinquish former State Routes 82 and 130 (generally The Alameda, Monterey Highway, and Alum Rock Avenue) to the City of San José. The relinquishment action added 12 miles to the City’s inventory of streets in “poor” condition, but the Caltrans agreement has facilitated an allocation of \$12.4 million in Federal grants for pavement rehabilitation on the relinquished routes.
- *Pavement Condition Benchmarking* - The Metropolitan Transportation Commission (MTC) annually reports on pavement conditions for all 109 Bay Area jurisdictions. San José ranks as having the worst pavement conditions among Santa Clara County jurisdictions, and ranked in the bottom third among Bay Area cities. Attachment 2 provides a summary of the MTC rankings. The city of San Francisco has a similar pavement condition (PCI 64). It is noted that in November 2011, San Francisco voters approved a \$248 million bond measure, including \$148 million to repair San Francisco streets, with the balance of funds used for bikeways, sidewalks, traffic signals, and ADA curb ramps. The measure passed with 68% approval.
- *City Residents Satisfaction Survey* - In January 2012, the City Auditor’s Office released the City’s annual Service Efforts and Accomplishments report. The report identified the results

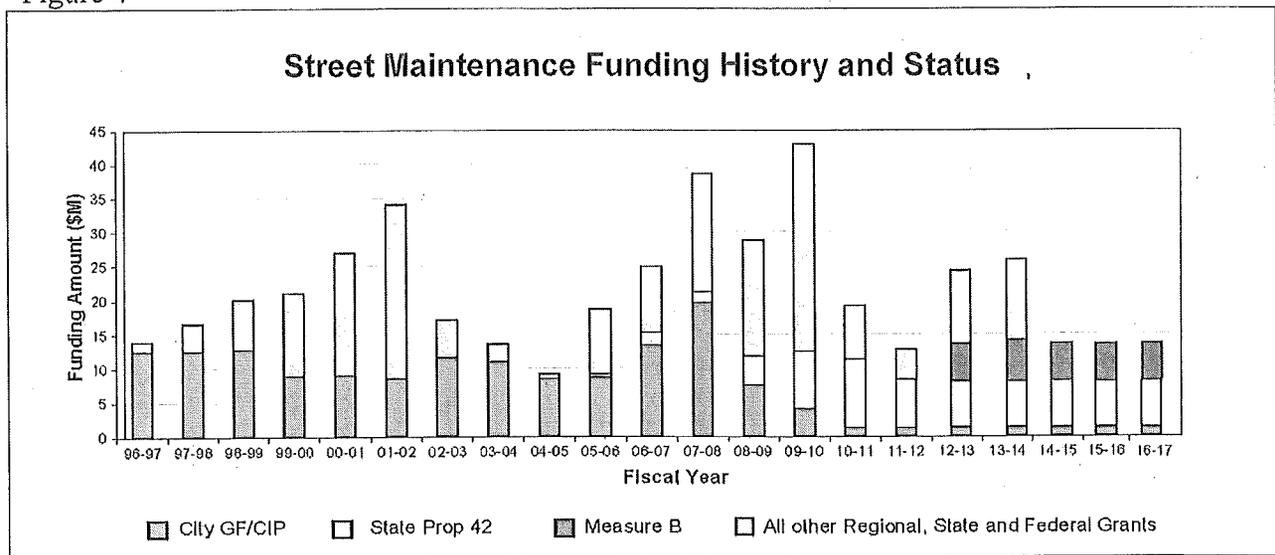
of a community survey on the satisfaction of City services. The City's "Street Repair" service was rated the lowest among all 36 services surveyed (see Attachment 3).

Available Funding for Pavement Maintenance

For the next 5 years, the average annual source of funding for City street pavement maintenance is estimated to be \$18 million, or 18% of the \$100 million annual need. The ongoing sources of funding currently expected include: State gas taxes (\$7.2 million), County Measure B vehicle registration fees (\$5.3 million), and San José development taxes (\$1 million). Additionally, one-time funds expected to be available in the near-term include \$10 million in Federal funds through MTC's OneBayArea grant program, \$12 million in Federal funds related to the relinquishment of former State Routes 82 and 130, and funds from Santa Clara County (\$0.4 million) for the completion of pavement maintenance work associated with the County pocket annexation program.

The chart in Figure 4 depicts the past history and projected future street maintenance funds by major source.

Figure 4



Approval of a "Priority Street Network" for Near-Term Pavement Maintenance

Since 1997, the City has made every effort to implement a policy and strategy of preventively maintaining the entire 2400-mile pavement network using cost effective maintenance cycles. This strategy included the "10-year backlog reduction program" that commenced in 1997, and other funding efforts to retain a network wide maintenance strategy. Under the strategy, a relatively balanced focus was given to the 800-mile network of major streets and the 1600-mile network of local and neighborhood streets.

Significant funding reductions and required budget balancing over many years has taken a toll on the City's ability to retain a preventative maintenance strategy that includes the entire pavement

network. Over the next 5 years, the City will likely have only 18% of the funding required to maintain and rehabilitate the pavement network to a “good” condition.

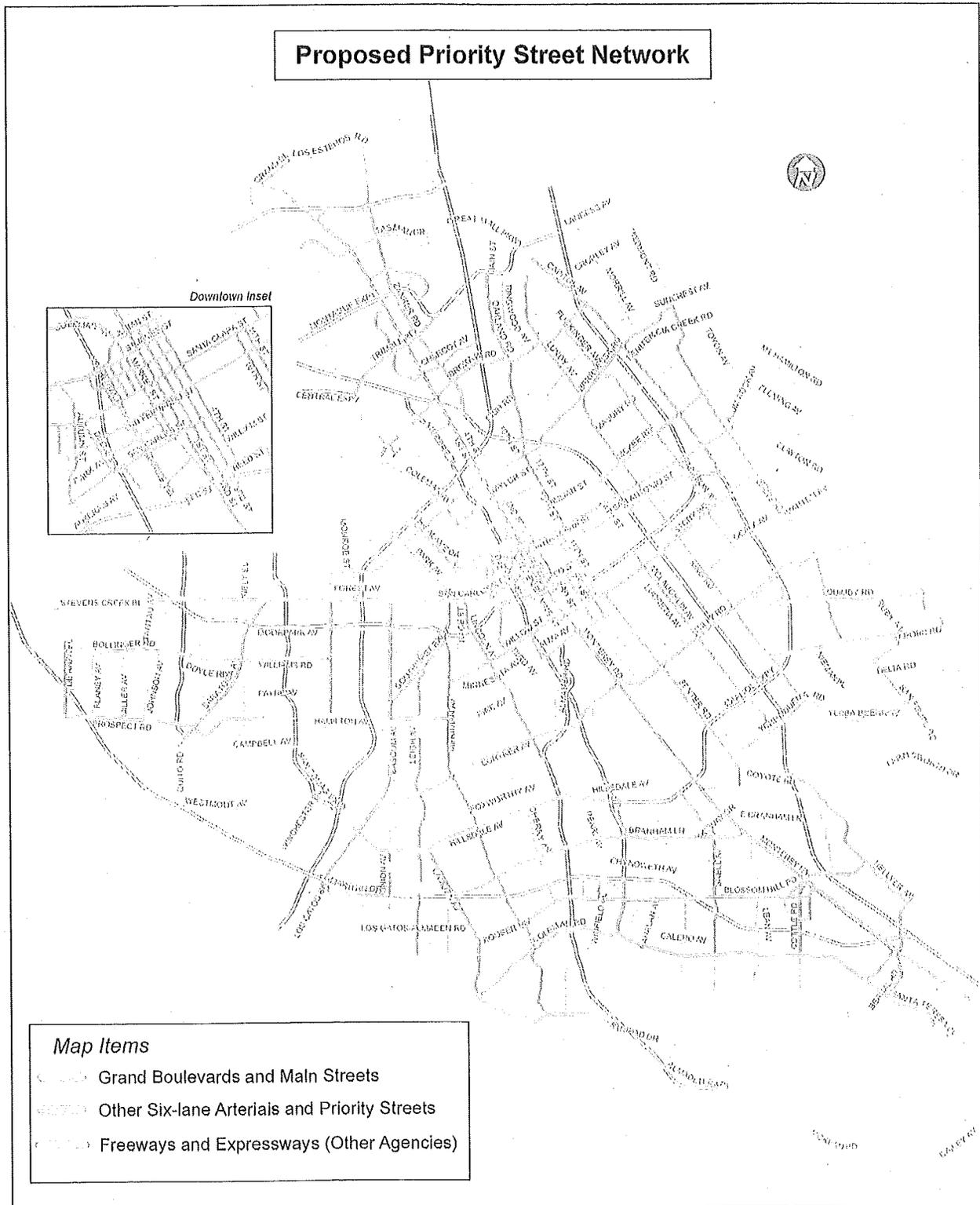
In response, staff has proposed and the City Council has concurred that it is necessary to re-consider the overall network strategy and to develop an alternative that focuses in on portions of the street network having the greatest overall benefit in achieving the City’s policy goals. Based on input provided by the T&E Committee and the City Council in October 2011, staff has developed the recommended 400-mile “Priority Street Network” for pavement maintenance, as shown in Figure 5.

Consistent with Council direction, the Priority Street Network is based on a subset of the City’s 800-mile network of major streets. The major streets are also referred to as “General Plan” streets as they form the primary traffic circulation system for the City as defined in the Envision 2040 General Plan. Based on staff’s analysis of Citywide traffic patterns and volumes, the major streets represent one-third of all City streets, but carry 87% of all Citywide traffic.

Unfortunately, the low level of current funding the City has available for pavement maintenance (\$18 million annually) is not sufficient to properly maintain the entire major street network. About \$32 million would be needed annually to improve and maintain the entire major street network in a “good” condition. Therefore, the Priority Street Network was prepared by selecting the major streets (400 miles) deemed to be most important to achieving City Council policy goals. Summarized below are the criterion used to select the Priority Street Network:

- Grand Boulevards and Main Streets – Envision 2040 identifies a new classification of special priority streets referred to as Grand Boulevards and Main Streets. Grand Boulevards are major transportation corridors that connect City neighborhoods and in most cases are primary transit corridors. Main Streets are roadways that, in combination with the adjacent land uses, play an important role in defining the character and identity of the surrounding neighborhood.
- Employment and Retail Area Primary Circulation Streets – These streets are the major access and circulation routes that service the City’s primary job centers and major retail districts. They include the North San Jose, Downtown, Edenvale areas; regional shopping malls; and auto rows.
- Primary Bikeway Network Along Major Streets – These streets include all primary bikeway corridors along major streets as identified in the San Jose Bike Plan 2020, adopted by the City Council in 2009.
- High Frequency Transit Corridors – These streets include all VTA LRT and bus transit corridors having at least 15-minute service frequencies during peak hours.
- Six-Lane Arterial Streets Carrying High Traffic Volumes – These streets include all major arterials having at least six-travel lanes (3 lanes in each direction).

Figure 5



- Other Streets Providing Network Continuity and Geographic Balance Between City Residential and Employment Areas – These streets were selected at staff discretion to help achieve Citywide geographic balance between residential and employment land uses, provide network continuity, and achieve a total network size of about 400 miles.

The proposed Priority Street Network would form the basis for selecting streets for annual pavement maintenance activities using available funds, at least in the near-term or until available funding is increased. As is current practice, the selection and timing of streets for pavement maintenance (and the type of maintenance treatment) would be based on optimizing both the effective use of available funds and providing the best overall pavement conditions. San José DOT uses the StreetSaver computerized pavement management system which is the standard management tool used by most Bay Area jurisdictions.

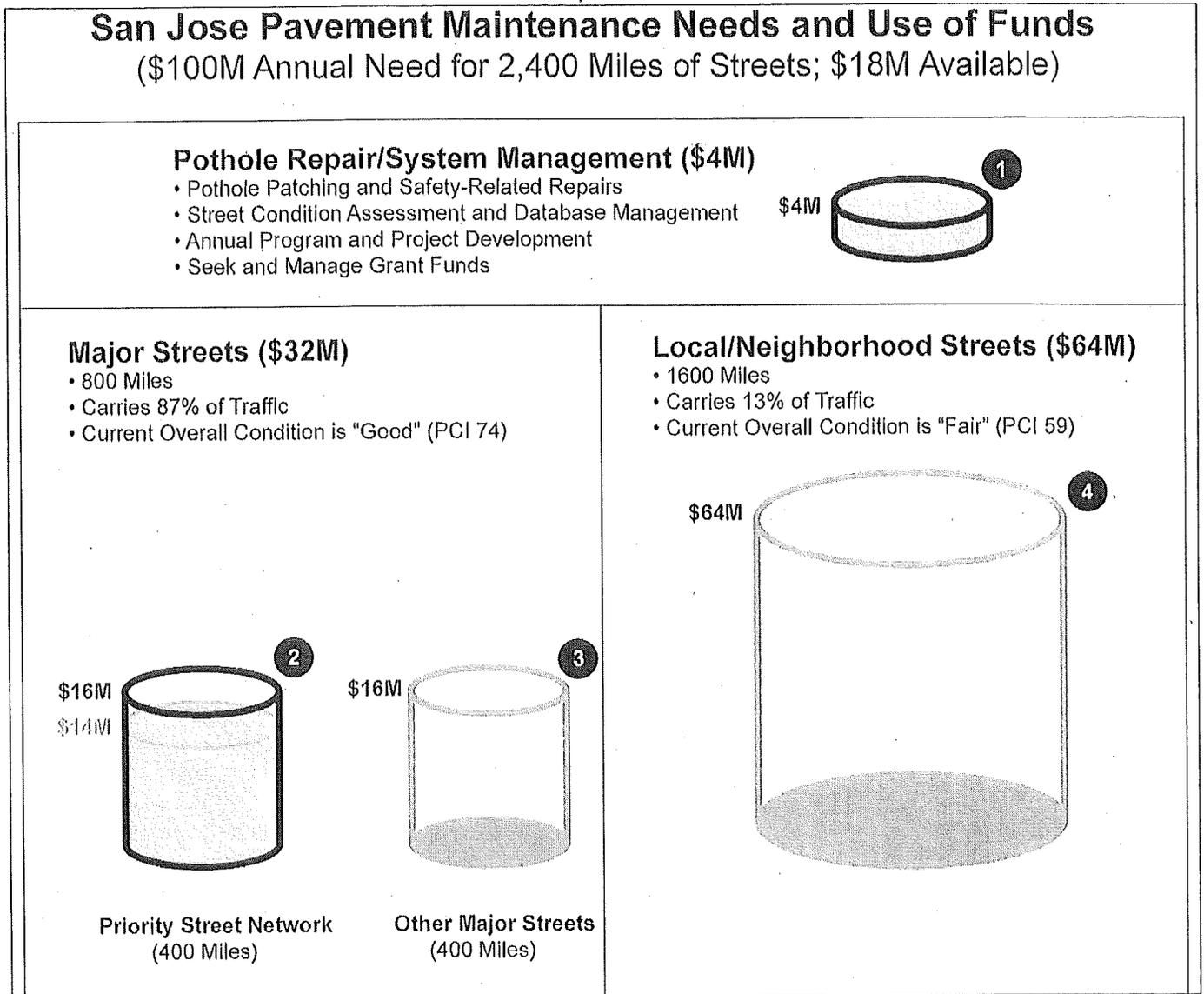
Perspectives on Current and Future Pavement Maintenance Priorities

The illustration in Figure 6 depicts staff's suggested approach for applying available funds for pavement maintenance. The illustration identifies four "buckets" for the use of pavement maintenance funds in a sequential priority order, addressing the City's total funding need of \$100 million. The first bucket covers Citywide pothole repairs and basic management of the pavement system – this bucket has a need of \$4 million annually and is fully funded. The second bucket addresses the Priority Street System – it is mostly funded, with \$14 million available to address the \$16 million need. The remaining two buckets are presently unfunded. If additional revenues for pavement maintenance become available, staff suggests the funds be allocated first to fully fund needs on the remaining major street system (bucket 3), and then to address local and neighborhood streets (bucket 4).

The obvious implication of the proposed Priority Street Network strategy is that local and neighborhood streets would not receive any preventative sealing or rehabilitation, regardless of their condition or concerns raised by the community, until such time as significantly increased funding is available. The only maintenance treatment on local and neighborhood streets would be in response to safety related concerns and the filling of potholes.

An additional implication is that DOT staffing for pavement maintenance would need to be reduced. Currently, DOT uses a hybrid model for delivering Citywide street maintenance services based on cost effectiveness and community responsiveness. In general, pavement maintenance on major streets is done contractually; pothole repairs are performed by DOT staff; and local and neighborhood street maintenance is performed by a combination of DOT crews and contractors. The elimination of near-term future maintenance work on local and neighborhood streets will have the expected consequence of reducing DOT pavement maintenance staff by 11 positions as part of the FY2012-13 Budget process. All incumbent staff in impacted positions would have applicable seniority rights to positions in equivalent/lower classifications in the maintenance series.

Figure 6



Suggested Direction for Increasing Available Funding for Pavement Maintenance

The root cause for San José's unsatisfactory street pavement conditions is clearly a lack of adequate investment over many decades. The City Council has adopted Legislative Guiding Principles and Priorities that have strived to increase available funding from Federal, State, regional and local sources, including support for State legislation to allow for reducing the 2/3rd approval requirement for local revenue measures supporting pavement maintenance. Due to both economic and political circumstances, there has been no progress at the Federal and State levels for increased transportation investment and prospects are remote for the near-term. Of concern is that State and Federal investment is actually decreasing since the primary source of transportation revenues from gas taxes is declining, due to improved fuel efficiency standards for vehicles and increased use of hybrids and electric vehicles.

As addressed in prior staff reports, staff from DOT and the City Attorney's Office have researched options for new local funding sources. In addition, staff has coordinated with the Santa Clara Valley Transportation Authority (VTA) to discuss funding options for San José's pavement maintenance program. The following is a summary of staff's recommended options to consider for increased pavement maintenance funding.

- Increase City Funding for Pavement Maintenance - The City currently contributes \$1 million annually for pavement maintenance using funds from development taxes. In the past, prior to the current economic recession, the City funded up to \$10 million annually from both the General Fund and the Traffic Capital Budget. In 2007, the City established an Infrastructure Backlog Reduction program that allocated 50% of the year-end General Fund savings for activities such as pavement maintenance. Up to \$6.9 M was allocated for pavement maintenance prior to the suspension of the program in 2008. Increasing City funding allocations for pavement maintenance will be considered as part of the upcoming budget process based upon available resources.
- Evaluate a San José Parcel Tax, Bond Measure, or Sales Tax – A new local parcel tax, bond measure and/or sales tax is considered to be the best option for raising significant local revenue for City pavement maintenance needs, particularly to address the need for local and neighborhood streets. This could be similar to voter initiatives approved in the past decade for libraries (2000 Measure O, \$212 million), parks (2000 Measure P, \$228 million), and public safety (2001 Measure O, \$159 million). It is estimated that a \$200 annual parcel tax for single family property owners (and prorated up for larger properties) would generate \$64 million annually. A new parcel tax requires 2/3rd voter approval. It is noted that the City's residential property owners currently pay a \$500 annual property assessment to support sewer infrastructure needs. A ¼-cent or ½-cent sales tax increase is estimated to annually generate \$32 million or \$64 million, respectively.
- Extend and Amend VTA's Current Transportation Sales Tax – In California, many counties have approved sales tax measures to help fund local transportation investments, typically implementing major regional highway and transit projects. Most of these "self-help" programs do provide some/significant funding to local cities for pavement maintenance and other local transportation needs such as safety projects, bikeways, streetscapes and ADA curb ramps. The 2000 Measure A program in Santa Clara County is uniquely focused exclusively on transit investments, including the BART extension to Silicon Valley. The current measure program expires in 2036. It is suggested that the program duration could be extended and amended to provide greater funding flexibility to include funds for local pavement maintenance. Based on the typical funding allocations of other California transportation sales tax programs, a range of \$10 million to \$20 million could be provided annually for San José's local transportation needs. Modifying the VTA's transportation sales tax program requires 2/3rd countywide voter approval.
- Continue Advocacy for a New Federal Transportation Bill – The current Federal transportation policy and funding bill (SAFETEA-LU) expired in September 2009. Congress has since renewed the funding formulas several times to continue the distribution of Federal gas tax revenues. However, the Federal gas tax has not been increased or indexed

for inflation since 1993 and as a result has severely declined in value. A new Federal transportation bill is overdue, but is not likely to be completed until after the 2012 presidential election. The City should continue its advocacy for a bill that increases overall Federal investment for transportation and with a focus on funding to bring national, state and local transportation infrastructure to a "state of good repair." On February 13, 2012, President Obama proposed a six-year \$476 billion surface transportation reauthorization bill that appears to align with the City's policy objectives.

COORDINATION

The preparation of this report has been coordinated with the City Manager's Budget Office and the City Attorney's Office.

/s/

HANS F. LARSEN
Director of Transportation

For questions, contact Hans Larsen, Director of Transportation at 535-3835, or Jim Ortbal, Assistant Director of Transportation at 535-3845.

Attachments

AGENDA: 10-25-11
ITEM: 6.1



Memorandum

TO: Mayor and City Council

FROM: Councilmember Donald
Rooha

SUBJECT: Pavement Maintenance

DATE: October 24, 2011

Approved

Don Rooha

Date

10/24/11

RECOMMENDATION

Accept the report and direct staff to include the prioritization of major roadways with residential frontages in the alternatives analysis scheduled to be discussed in the March report to the Transportation and Environment Committee in 2012.

ANALYSIS

Many long and difficult discussions have been had regarding pavement maintenance within our City, and it's long been established that our deferred maintenance backlog is a large problem that could become seemingly insurmountable if we don't begin to tackle the issue strategically. To the credit of our staff, the strategic discussion of service delivery of our pavement system has begun, and I'm excited to work through this issue and find creative solutions to this serious problem.

So far, the service delivery discussion has largely segregated roadways into two categories of streets: residential (local) and major arterials. While I can appreciate the perceived simplicity of that differentiation, it's very important to me that we identify major streets that host residential frontages, and not just major streets that serve commercial areas.

This report and a discussion regarding the prioritization of pavement service delivery is scheduled to be heard at the Transportation and Environment Committee in March. As staff develops their alternatives analysis for prioritization, I think it is incredibly important that included in their analysis be direction that considers the prioritization of major streets with residential frontages. For example, in District 9 (which I represent) streets such as Meridian Avenue or Hillsdale Avenue serve commercial areas but also contain frontages that are exclusively residential for significant portions of the street.

Further, it's been said time and time again that we cannot go to the voters with proposals for revenue measures until we've completed pension reform, which I fully understand and appreciate. In recognizing that pension reform will most likely be completed in one form or another in the near future, I hope that we can begin serious discussions soon on additional revenue generation specific to pavement maintenance. Starting this discussion now allows us to have a plan ready for residents to consider when the time comes. Based on the state of our pavement system, action on this issue just can't seem to wait any longer.

Pavement Conditions of Bay Area Jurisdictions

(Sample listing of 109 Bay Area jurisdictions: 10 best, 10 worst, 10 biggest, and in Santa Clara County)

Bay Area Rank	Santa Clara County Rank	Jurisdiction	Total Lane Miles	2009 PCI
1		Brentwood	416	86 (Very Good)
2		Belvedere	24	84 (Very Good)
3		Dublin	240	82 (Very Good)
4	1	Los Altos	226	82 (Very Good)
5		Foster City	121	81 (Very Good)
6	2	Santa Clara	597	80 (Very Good)
7		San Pablo	104	80 (Very Good)
8		Livermore	655	78 (Good)
9		Union City	331	78 (Good)
10		Contra Costa County	1327	78 (Good)
17	3	Morgan Hill	259	77 (Good)
19	4	Los Altos Hills	113	77 (Good)
22	5	Gilroy	243	76 (Good)
23	6	Mountain View	331	76 (Good)
28	7	Campbell	218	75 (Good)
29	8	Sunnyvale	636	75 (Good)
31	9	Santa Clara County	1485	74 (Good)
39	10	Palo Alto	470	73 (Good)
44		Alameda County	997	72 (Good)
48	11	Saratoga	281	71 (Good)
51	12	Cupertino	303	70 (Good)
56	13	Milpitas	287	69 (Good)
60	14	Los Gatos	218	69 (Fair)
61	15	Monte Sereno	27	67 (Fair)
67		Solano County	932	65 (Fair)
71		Santa Rosa	1090	65 (Fair)
73		Fremont	1063	64 (Fair)
75	16	San Jose	4182	64 (Fair)
77		San Francisco	2130	64 (Fair)
98		Oakland	1963	55 (At Risk)
100		San Anselmo	80	53 (At Risk)
101		Petaluma	390	55 (At Risk)
102		East Palo Alto	80	53 (At Risk)
103		Vallejo	681	53 (At Risk)
104		Marin County	848	52 (At Risk)
105		Orinda	193	49 (Poor)
106		St Helena	51	46 (Poor)
107		Larkspur	64	45 (Poor)
108		Sonoma County	2718	45 (Poor)
109		Rio Vista	45	42 (Poor)

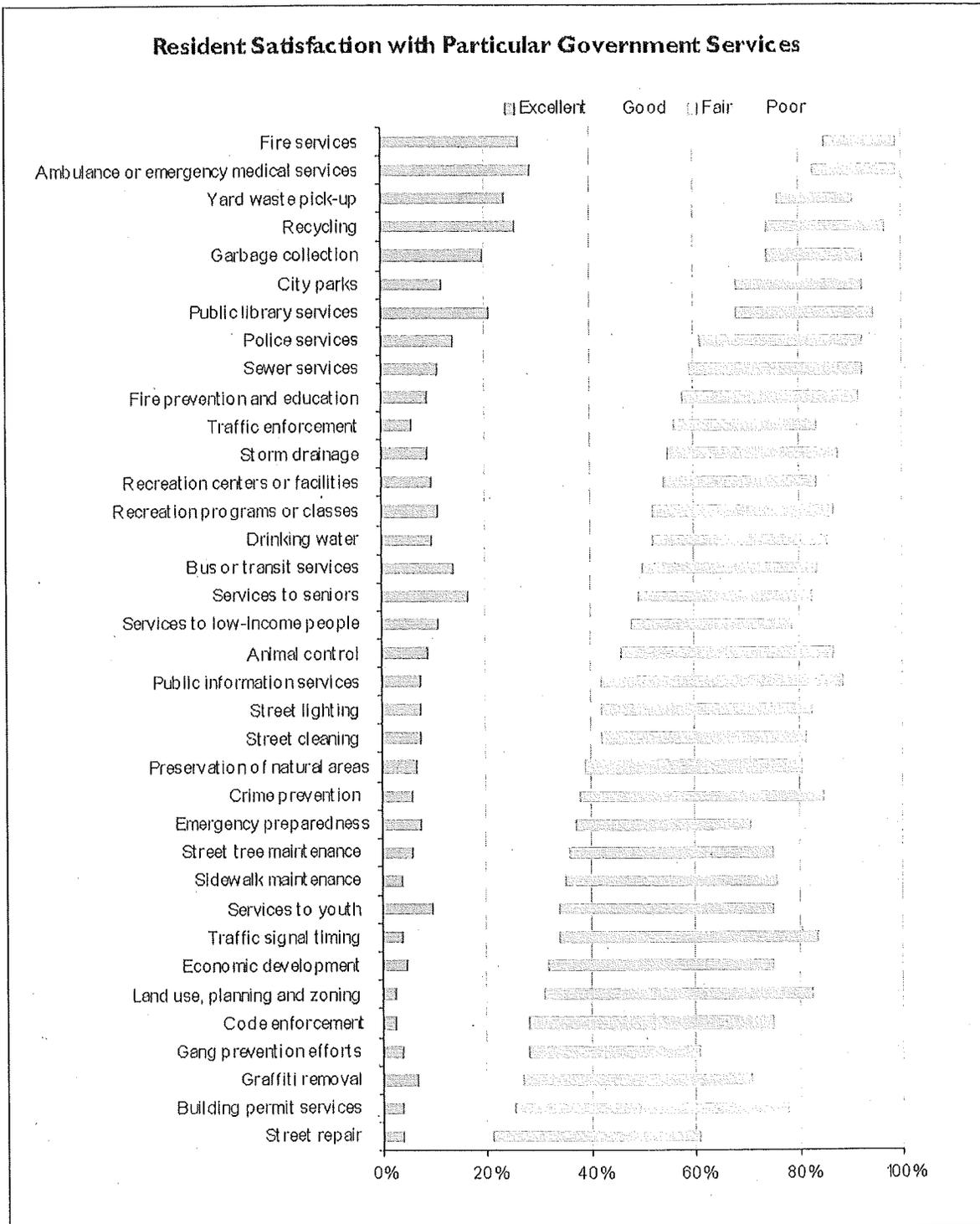
Bay Area Region

42,499

66 (Fair)

Source: 2011 MTC Pothole Report

San José Residents are Least Satisfied with “Street Repair” Services



Source: City of San José Service Efforts and Accomplishments Report 2010-11, Annual Report on City Government Performance, by City Auditor, December 2011