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## **Between a Pothole and a Hard Place: Funding Options for San Francisco's Street Resurfacing Program**

*July 2010*

A report to Mayor Gavin Newsom and Board of Supervisors President David Chiu  
by the Street Resurfacing Finance Working Group



**CITY AND COUNTY OF SAN FRANCISCO  
CAPITAL PLANNING PROGRAM**



# **Between a Pothole and a Hard Place: Funding Options for San Francisco's Street Resurfacing Program**

**Accepted by the Capital Planning Committee  
May 17, 2010**

**Approved by the Streets Resurfacing Finance Working Group  
June 8, 2010**

Copies of this document can be found at [www.sfgov.org/cpp](http://www.sfgov.org/cpp) or through  
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# OFFICE OF THE CITY ADMINISTRATOR



Gavin Newsom, Mayor  
Edwin M. Lee, City Administrator

July 21, 2010

The Honorable Gavin Newsom  
City and County of San Francisco  
1 Dr. Carlton B. Goodlett Place, Room 200  
San Francisco, CA 94102

Honorable Members of the Board of Supervisors  
City and County of San Francisco  
1 Dr. Carlton B. Goodlett Place, Room 244  
San Francisco, CA 94102

Re: Streets Resurfacing Finance Working Group

Dear Mayor Newsom and Members of the Board of Supervisors:

Per the letter of request from Mayor Newsom and Board President Chiu dated January 8, 2010, I am pleased to submit the attached report on funding options for San Francisco's Street Resurfacing Program. This report assesses the extent of the City's street resurfacing problem, evaluates seventeen potential funding options to meet future street resurfacing funding needs, and makes recommendations based on its findings.

The CPC reviewed and unanimously accepted the report on May 17, 2010. The Street Resurfacing Finance Working Group, a fourteen-member subcommittee to the Capital Planning Committee (CPC), unanimously approved the report on June 8, 2010.

We look forward to your comments and suggestions as you consider the attached report.

Sincerely,

A handwritten signature in cursive script, appearing to read "Edwin M. Lee".

Edwin M. Lee  
City Administrator

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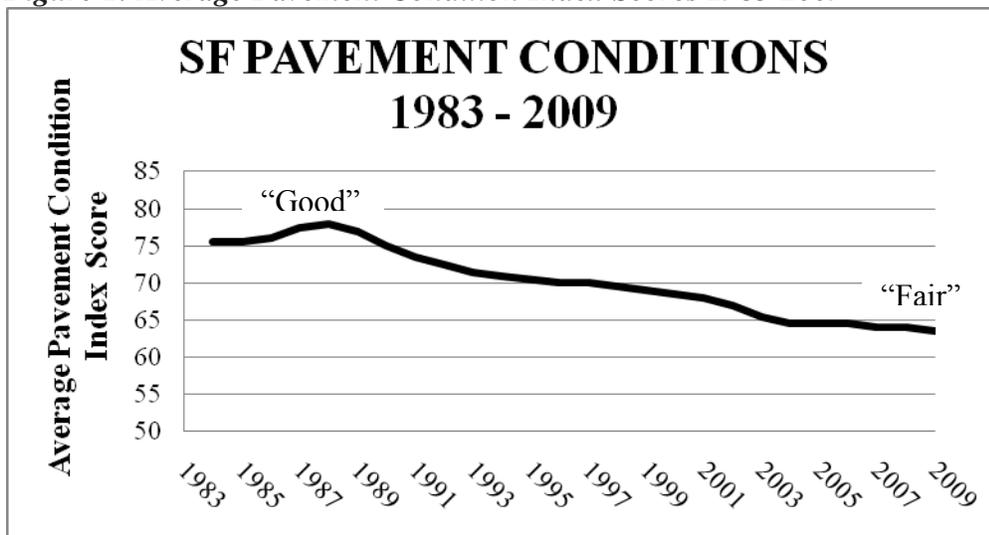
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## EXECUTIVE SUMMARY

Streets are one of the few City services that are utilized by every San Francisco resident, visitor and business. They impact public safety, promote mobility, and enable economic activity. Yet, despite the role streets play in maintaining the economic and cultural vitality of the City, San Francisco's Street Resurfacing Program has been unable to successfully compete with other public needs. While the City has experienced declining revenues and worsening street conditions for decades (more than 20% since 1988, see Figure 1 below), **the cost of underfunded preventative maintenance is only now catching up with us.** The City has finally reached a point where it can no longer afford to let its streets continue to decline. **Nearly half (49%) of all City streets have deteriorated to the point where they can no longer be repaired with regular maintenance (\$9,000/block).** Instead they must be resurfaced (\$97,000/block) or reconstructed (\$436,000/block) at much higher prices.<sup>1</sup> **Without preventative maintenance, a San Francisco street will end up costing the City four times more over the course of 70 years than it would have cost if it had been regularly maintained during that period.**

Figure 1: Average Pavement Condition Index Scores 1983-2009



Over the past four months, the Street Resurfacing Finance Working Group (SRFWG) has analyzed existing and potential funding sources to improve the pavement condition of San Francisco's streets and avoid the exponentially higher cost of street reconstruction. The SRFWG found that **existing state, federal, and local funding sources are not capable of meeting the program's annual or long-term needs.** This year's Capital Plan proposes spending \$468 million on street resurfacing over the next ten years, an amount equal to 62% of the \$621 million needed to maintain a "fair" Pavement Condition Index (PCI) score of 64. Even at this record proposed funding level, the City's PCI score is expected to fall one point below its current score

<sup>1</sup> SF DPW's estimated maintenance resurfacing and reconstruction costs for a San Francisco street.

of 63 by 2020. This not only ensures the continued poor condition of San Francisco's street conditions but edges the City one step closer to the 'at-risk' category of PCI 60.

After careful analysis of seventeen potential funding mechanisms, the SRFWG unanimously approved the following five recommendations:

**RECOMMENDATION 1:** Over the next ten years, the City should raise its overall PCI score to a more efficient 70 using a combination of funding sources.

**RECOMMENDATION 2:** Street resurfacing should be a top priority for any revenue generated by new local vehicle fees.

**RECOMMENDATION 3:** The City should continue to work on the following long-term legislative solutions:

- Increasing vehicle license and/or registration fees
- Lowering the voter threshold for approval of transportation general obligation bonds
- Ensuring that streets are an eligible use of funds should the City authorize congestion pricing
- Raising the state sales/excise tax on gasoline
- Modifying the state gas tax allocation formula to increase funds for street resurfacing in San Francisco

**RECOMMENDATION 4:** A conditional general tax, a citywide benefit assessment district, and a parcel tax are the three best options for a new revenue source for the City's Street Resurfacing Program.

**RECOMMENDATION 5:** Once an ongoing revenue stream has been identified, the City should consider issuing bonds against that revenue to immediately improve the City's street conditions and avoid the costs of street reconstruction.

## THE STREETS OF SAN FRANCISCO: A VISUAL GUIDE

	<table border="1"> <tr> <td>Rating:</td> <td><b>Very Good - Excellent</b></td> </tr> <tr> <td>PCI Score:</td> <td><b>100 - 85</b></td> </tr> <tr> <td>Treatment Required:</td> <td><b>None</b></td> </tr> <tr> <td>% of SF Blocks:</td> <td><b>20%</b></td> </tr> <tr> <td>Cost/Block:</td> <td><b>\$0</b></td> </tr> </table>	Rating:	<b>Very Good - Excellent</b>	PCI Score:	<b>100 - 85</b>	Treatment Required:	<b>None</b>	% of SF Blocks:	<b>20%</b>	Cost/Block:	<b>\$0</b>
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	<table border="1"> <tr> <td>Rating:</td> <td><b>Poor - Failed</b></td> </tr> <tr> <td>PCI Score:</td> <td><b>49 – 0</b></td> </tr> <tr> <td>Treatment Required:</td> <td><b>Reconstruction</b></td> </tr> <tr> <td>% of SF Blocks:</td> <td><b>19%</b></td> </tr> <tr> <td>Cost/Block:</td> <td><b>\$436,400</b></td> </tr> </table>	Rating:	<b>Poor - Failed</b>	PCI Score:	<b>49 – 0</b>	Treatment Required:	<b>Reconstruction</b>	% of SF Blocks:	<b>19%</b>	Cost/Block:	<b>\$436,400</b>
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Cost/Block:	<b>\$436,400</b>										

## ABOUT THIS REPORT

In January 2010, San Francisco Mayor Gavin Newsom and Board of Supervisors President David Chiu requested that the Capital Planning Committee establish the Street Resurfacing Finance Working Group (SRFWG) to prepare a set of recommendations for financing the repaving and reconstruction of San Francisco City and County (the City) streets. Without a new revenue source, the condition of City streets is expected to deteriorate, driving up future renewal costs, impeding public mobility and threatening public safety.

The purpose of this report is to assess the extent of the City's street resurfacing problem and to recommend possible funding solutions. This report does not include recommendations relating to how the City should allocate limited resources among various City departmental needs; rather it seeks to identify the most appropriate funding vehicles for street resurfacing through research and analysis.

Additionally, this report does not comment on the Department of Public Works (DPW) pavement management strategy. DPW adheres to treatment guidelines laid out by the Metropolitan Transportation Commission (MTC), and has developed a set of strict criteria for prioritizing street resurfacing projects that is in line with engineering standards. An overview of DPW's methodology is included in this report.

The SRFWG consists of 14 members representing 10 different agencies.

- *Adam Van de Water*, Office of the City Administrator, Capital Planning Program (Chair)
- *Anthony Ababon*, Controller's Office of Public Finance
- *Rob Black*, San Francisco Chamber of Commerce
- *Kaitlyn Connors*, Office of the City Administrator, Capital Planning Program
- *Amber Crabbe*, San Francisco County Transportation Authority
- *Gillian Gillett*, San Francisco Planning + Urban Research (SPUR)
- *Bob Gamble*, San Francisco Planning + Urban Research (SPUR)
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- *Douglas Legg*, Department of Public Works
- *David Noyola/Judson True*, Board of Supervisors, Office of President David Chiu
- *Neal Patel*, San Francisco Bicycle Coalition
- *Maureen Singleton*, Department of Public Works
- *Terrie Williams*, San Francisco Municipal Transportation Agency
- *Rick Wilson*, Mayor's Budget Office

This report was written by Kaitlyn Connors with guidance and assistance from the 14 members of the SRFWG. The contents and recommendations of this report were developed over the course of thirteen meetings between February and June 2010 and were unanimously adopted at our final meeting on June 8, 2010.

## THE STREETS OF SAN FRANCISCO: AN OVERVIEW

The City is responsible for maintaining 850 miles of streets containing 12,517 block segments. Currently, the City's average Pavement Condition Index (PCI) score is considered fair at 63, falling one point short of the Capital Plan's target of 64 and five points below the state's average of 68.<sup>2</sup> Due to funding constraints, the Capital Plan uses a PCI target of 64. This score reflects the bottom of the range in which preventative treatment can be applied; it does not account for safety, comfort, or cost-effectiveness. The Department of Public Works (DPW) believes that a PCI score of 70<sup>3</sup> is a more optimal target as it leaves streets in an overall "good" condition and achieves a higher level of cost effectiveness.

### DPW's Pavement Management Strategy

Currently, the average useful life of a City street is 14 to 21 years. However a street's lifecycle is a function of how heavily trafficked it is, particularly by heavy vehicles, and the type of maintenance it receives over time. Typically, a City street with heavy traffic will wear out seven years earlier than a lightly trafficked street. To systematically maintain its pavement network, DPW the uses a Pavement Management and Mapping System (PMMS) to:

- Track the condition of City streets
- Determine the most appropriate time to rehabilitate pavement
- Identify cost-effective methods for maintaining pavement
- Calculate the costs associated with maintaining the streets at a desired level

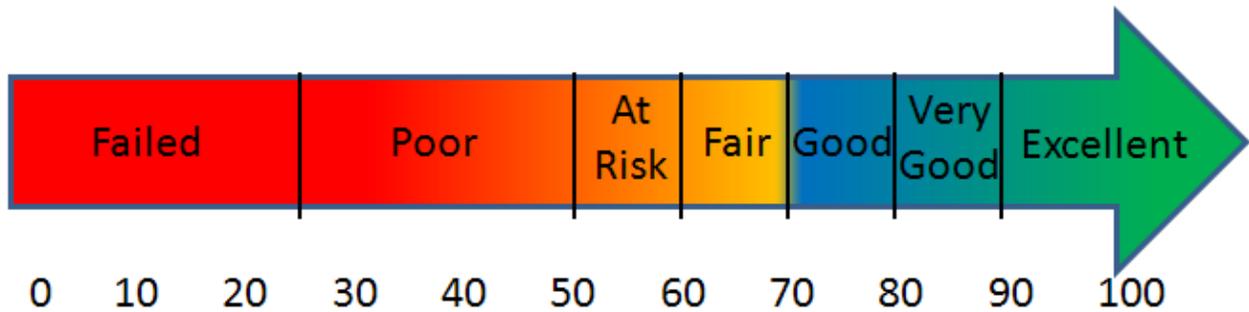
The system assesses street deterioration by establishing a rating for each street segment based on a visual survey done by DPW engineers. Each road segment is evaluated in terms of its ride quality, cracking, and the raveling of the roadway. These ratings are then translated into PCI scores ranging from 0 to 100, and are used to assess the overall quality of the City's network. The Metropolitan Transportation Commission requires local governments to utilize a pavement management system like PMMS as a condition for receiving state and federal funding. PCI scores can be used to compare street conditions across jurisdictions throughout the state.

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<sup>2</sup> Nichols Consulting Engineers 2009

<sup>3</sup> DPW engineers consider a PCI of 70 to be a more reasonable goal for applying preventative treatments, as it results in a "good" PCI score and falls within the industry standard for preventative maintenance (PCI 64 – 84). Although engineers can predict deterioration rates fairly accurately, factors such as level of service and weather can influence the rate of decline. Using a midrange target of 70 allows engineers to account for discrepancies in deterioration due to outside factors and helps ensure that targeted streets remain within the cost effective preventative maintenance range. Maintaining a higher PCI score would be more cost effective, however, given resource limitations, DPW believes 70 to be a realistic goal. This is in line with generally accepted industry standards. In 1999, the California Transportation Commission set a PCI goal of 70 in its 10 Year Needs Assessment of the State Transportation System, claiming it was a reasonable threshold for achieving cost effectiveness (League of California Cities 2009).

**Figure 2: The Pavement Condition Index (PCI)**



**Pavement Treatment**

San Francisco has a rigid pavement network consisting of an underlying base topped with a concrete surface layer. In general, rigid pavement treatment falls into three broad categories: preventative maintenance, resurfacing and major reconstruction. To determine the type of treatment needed to repair a street, DPW uses the PCI as a guideline. **Table 1** describes the average treatment associated with each PCI range.

**Table 1: PCI and Associated Treatment Costs**

PCI Score	Associated Treatment	Average Cost/Block
100 - 85	No action needed	-
84 - 64	Maintenance: crack or slurry seals are used to repair distress and reinforce weakened pavement	\$9,000
63 – 50	Resurfacing: surface layer is grinded and filled with a new layer (mill and fill)	\$97,800
49 – 0	Reconstruction: surface layer is grinded, base is repaired, surface layer is replaced (mill and fill w/base repair)	\$436,400

*Source: Department of Public Works*

Today the average city street has a Pavement Condition Index Score of 63, falling just below the threshold for repair maintenance. Engineers estimate that once a street falls below a score of 64, it can no longer be repaired with maintenance (\$9,000/block). Instead it must be resurfaced (\$97,000/block) or reconstructed (\$436,000/block) at a much higher price. See **Appendix A** for a map of City streets and their PCI scores.

**Project Prioritization**

Because the demand for street maintenance exceeds the available funds designated for the Street Resurfacing Program, DPW considers the following criteria to prioritize pavement treatment projects:

- Transit and Bicycle Routes: Streets with a heavy volume of transit vehicles and bicycle traffic usually receive higher priority for resurfacing.
- PCI Score: The PCI is used to identify and categorize the streets based on the extent of pavement damage and the type of treatment needed. Streets approaching the point where

treatment costs would significantly increase if they continued to deteriorate are given priority.

- **Functional Classification:** Streets whose PCI scores qualify them for treatment are sorted into two classes: 1) arterials and collectors, which carry heavy to moderate bike, car, and transit traffic in and around the City; and 2) locals, which carry low volume residential traffic. Arterials and collectors are given priority.
- **Project Readiness/ Coordination with Utility Companies and City Agencies:** DPW coordinates with utility companies and other City departments to ensure that resurfacing projects do not precede excavation projects and that construction impacts are minimized.
- **Equitable Distribution Across the City:** DPW works to ensure street repaving is distributed to all parts of the City. Each of the City's neighborhoods and commercial districts receives an equitable distribution of work over a five year rolling duration.
- **Complaints:** When the City receives complaints about pavement conditions, engineers follow a protocol to investigate, evaluate and make recommendations. If the street is found to be in need of repaving and meets requirements for a paving candidate, priority for resurfacing is given.

## **CURRENT FUNDING: “ON THE EDGE OF A CLIFF”**

Funding for local street maintenance and resurfacing in California has come from a range of sources, including: gasoline excise and sales taxes, county sales taxes, federal surface transportation programs, and local sources such as city general funds and bonds<sup>4</sup> (See **Appendix B** for a snapshot of how select Bay Area jurisdictions fund their street resurfacing programs). Many of these sources have not kept pace with inflation or have been eliminated, further increasing shortfalls in local street resurfacing budgets across the state and prompting the League of California Cities to write in a recent report, “California’s local streets and roads are on the edge of a cliff.”<sup>5</sup>

### **How Did This Happen?**

Prior to voter approval of Proposition 13 in 1978, the program was primarily supported by gas tax revenues. However, after Proposition 13 passed, funding from the gas tax was reallocated to the Department of Public Works’ (DPW’s) annual street maintenance budget. Throughout the 1980s the program was supported through state and federal funds, with the exception of a general obligation bond (G.O. bond) that was approved in 1987. In 1989 San Francisco voters passed Proposition B which approved a 20-year expenditure plan and created a half-cent transportation sales tax to fund the plan that allocated 16% of revenues to street resurfacing. This was the program’s major source of funding until 2003 when voters passed Proposition K which replaced Proposition B and created a new 30-year expenditure plan that decreased the program’s share of tax revenues from 16% to 5%<sup>6</sup>. In response to declines in state and federal funding for street

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<sup>4</sup> Metropolitan Transportation Commission 2009

<sup>5</sup> Nichols Consulting Engineers, League of California Cities 2009

<sup>6</sup> According to the SFCTA, this was done in part to accommodate new and expanded programs such as traffic calming within the existing half-cent transportation sales tax and in recognition of the passage of Proposition 42 (the dedication of gasoline taxes to highways, streets and roads, and transit improvements) in 2002. Unfortunately,

resurfacing, DPW requested acceleration of its Proposition K allocations such that funding decreased from \$11.7m in 2007 to \$2.5m in 2008.

State and federal sources<sup>7</sup> have been a critical source of revenue for street resurfacing over the past thirty years. However these sources, particularly state sources, are increasingly volatile and subject to policymaker cuts.

To help address shortfalls in funds for street resurfacing, the City has attempted to pass additional G.O bonds for streets in 1993 and 2005 but they failed to get the required 2/3<sup>rds</sup> voter approval. In 2009, another G.O. bond was proposed, but the Board of Supervisors did not place it on the ballot.

Since 2008 the program has survived on “one time” sources through State Proposition 1B (The Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act), the American Recovery and Reinvestment Act (ARRA), Certificates of Participation (COPs) and the General Fund. **The General Fund has not historically supported the Street Resurfacing Program. It is only because of cuts to previous funding sources that this year’s Capital Plan proposes investing \$210 million from the General Fund over the next ten years.** Even at this record proposed level of General Fund investment, the City’s PCI score is expected to drop to 62 by 2020. Without any General Fund contributions, the City’s PCI score would drop to 52 over the same time period.

The City can expect modest revenues from three outside sources: Proposition K, AB 6 (CA State Transportation Program, which replaced Proposition 42), and Federal Surface Transportation funds. As **Figure 3** illustrates, over the next ten years, funding from these sources will cover a third of the budget needed to obtain a PCI of 70. Approximately 66% (\$502m) of the funds required just to achieve a PCI score of 70 must come either from the City’s limited and volatile General Fund or from a newly identified source(s). See **Appendix B** for full budget details.

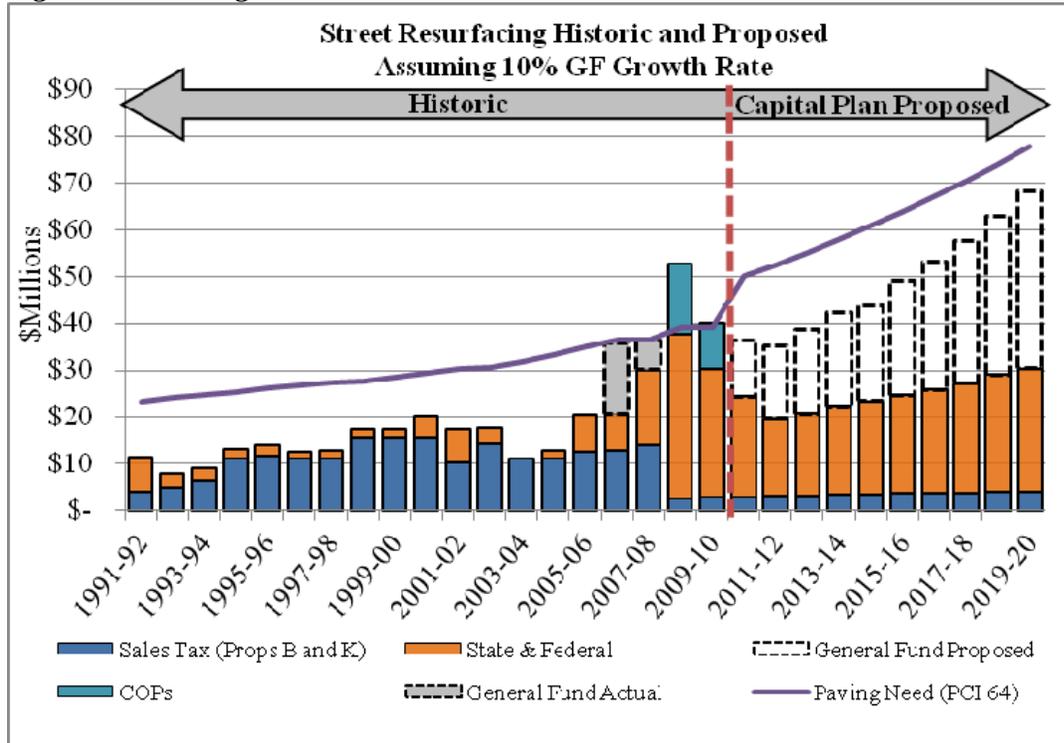
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Proposition 42 revenues were delayed by the growing state budget crisis and multiple diversions to backfill holes in the state’s general fund.

<sup>7</sup> **Gas Tax (AB 6 & AB 9):** In March 2010, Governor Schwarzenegger signed AB 6 and AB 9 into law. This legislation eliminated the 6% statewide sales tax on gasoline (Proposition 42); but increased the excise taxes on fuel and indexed it to inflation. As a result, the Department of Finance is predicting funding for local streets will see a modest net gain over what was expected under Proposition 42. It estimates that the City will see an increase in state revenue for local streets and roads of \$61,000 in FY 2010-11 (resulting in a total of \$12.6 million) and a gain of \$2.2 million in FY 2011 -12 (resulting in a total of \$13.9 million).

**Surface Transportation Program:** The City expects to receive between \$2 and \$3 million per year in federal funds over the next ten years based on projections made by the Metropolitan Transportation Commission (MTC) last year. These funds will be distributed through a competitive block grant program administered by the SFCTA. However, these funds depend upon the reauthorization of the current federal transportation program, SAFETEA-LU, which expired in October 2009 and has since been subject to a number of short term continuing resolutions. The actual dollar amount that local streets will receive under the new bill, or when it will even be approved, is unclear at this time.

**Figure 3: Funding vs. Need**



Source: Department of Public Works, Capital Planning Program, Metropolitan Transportation Commission

## DRIVEN TO THE BRINK: THE IMPORTANCE OF NOW

With an average PCI of 63, the San Francisco street network as a whole is slightly below the threshold for preventative maintenance. Engineers typically identify a PCI of 64 as a tipping point at which the pavement deterioration rate begins to steeply increase and more expensive treatments are needed for repair. The cost-effectiveness of a treatment is directly correlated with the condition of the pavement being treated: pro-active maintenance extends the life of streets, thereby increasing its cost effectiveness while the lack of treatment leads to reduced pavement conditions and substantially higher costs to taxpayers in the long run.

To achieve an average PCI of 64, the goal set in previous Capital Plans, the City must invest \$629 million over the next 10 years from all sources. Given expectations of \$249 million from all existing sources, this level of funding would require a newly identified source (or the General Fund) to contribute \$380 million and would only prevent the average ‘fair’ pavement condition from getting worse. To improve the average PCI to a ‘good’ score of 70, which is generally considered a best practice, the City would need to invest an additional \$122 million, or a total of \$751 million (with \$502 million coming from new sources), over the next ten years. Capital Plan projected funding and expected shortfalls over the next ten years are summarized in **Table 2** below. See **Appendix C** for more details on the Street Resurfacing Budget.

**Table 2: Street Resurfacing Need vs. Allocated Funding**

PCI Goal	10 Year Need	Proposed General Fund Budget	Projected Outside Funding Sources	Capital Plan Total	10 Year Budget Shortfall
Improve to PCI 64	\$629m	\$221m	\$249m	\$469m	\$160 – \$380m
Improve to PCI 70	\$751m	\$221m	\$249m	\$469m	\$282 – \$502m

Source: DPW Pavement Management Mapping System (PMMS), FY'11 Capital Planning Program 10-Year Capital Plan

**Table 3** details the percentage of City street segments or blocks that need each type of treatment and estimates the total one-time cost of applying that needed treatment to each block could it all be done in the current year<sup>8</sup>. Currently, 49% of San Francisco’s street segments have a PCI below 64, requiring resurfacing or reconstruction treatments that are 11-48 times more expensive than simple maintenance. While all streets will eventually need resurfacing, street reconstruction is an entirely avoidable cost.

**Table 3: San Francisco PCI Scores and Projected Treatment Costs**

PCI Score	Treatment Needed	% of SF Blocks	Cost/Block	Estimated Cost (\$millions)
100 -85	None	20%	-	-
84 - 64	Maintenance	31%	\$9,000	\$35.3
63– 50	Resurfacing	30%	\$97,800	\$368.6
49 – 0	Reconstruction	19%	\$436,400	\$1,009.8
		<b>100%</b>	<b>Total</b>	<b>\$1,413.8</b>

Source: DPW Pavement Management Mapping System (PMMS)

If the City were to exclude General Fund revenue and rely only on outside funding sources, the average PCI score is predicted to drop to 53 – far below the threshold for resurfacing – by 2020. Less-costly preventative maintenance (e.g. crack and slurry sealing) and street resurfacing would no longer be an option for a majority of City streets and full reconstruction would be needed to bring these streets back to an acceptable driving condition.

Investing in preventative measures now not only reduces vehicle repair costs but could save the City millions of future dollars. Research has shown when applied appropriately, **preventive treatment can be 3 to 6 times more cost-effective than failing to take any preventive precautions**, as it prolongs the pavement’s useful life and level of serviceability at a price that is significantly less than that of reconstruction.<sup>9</sup> Furthermore, preventative treatments such as crack and slurry seals have less severe construction impacts and are more environmentally friendly than total reconstruction.<sup>10</sup>

When viewed in terms of cost effectiveness, street resurfacing actually becomes a two-pronged problem: one-time major capital investments are needed to increase the overall PCI score to an

<sup>8</sup> The City does not realistically have the funds or even the capacity to close all streets down simultaneously. This is why we recommend a phased-in improvement to PCI 70 at a total cost of \$751 million over the next ten years.

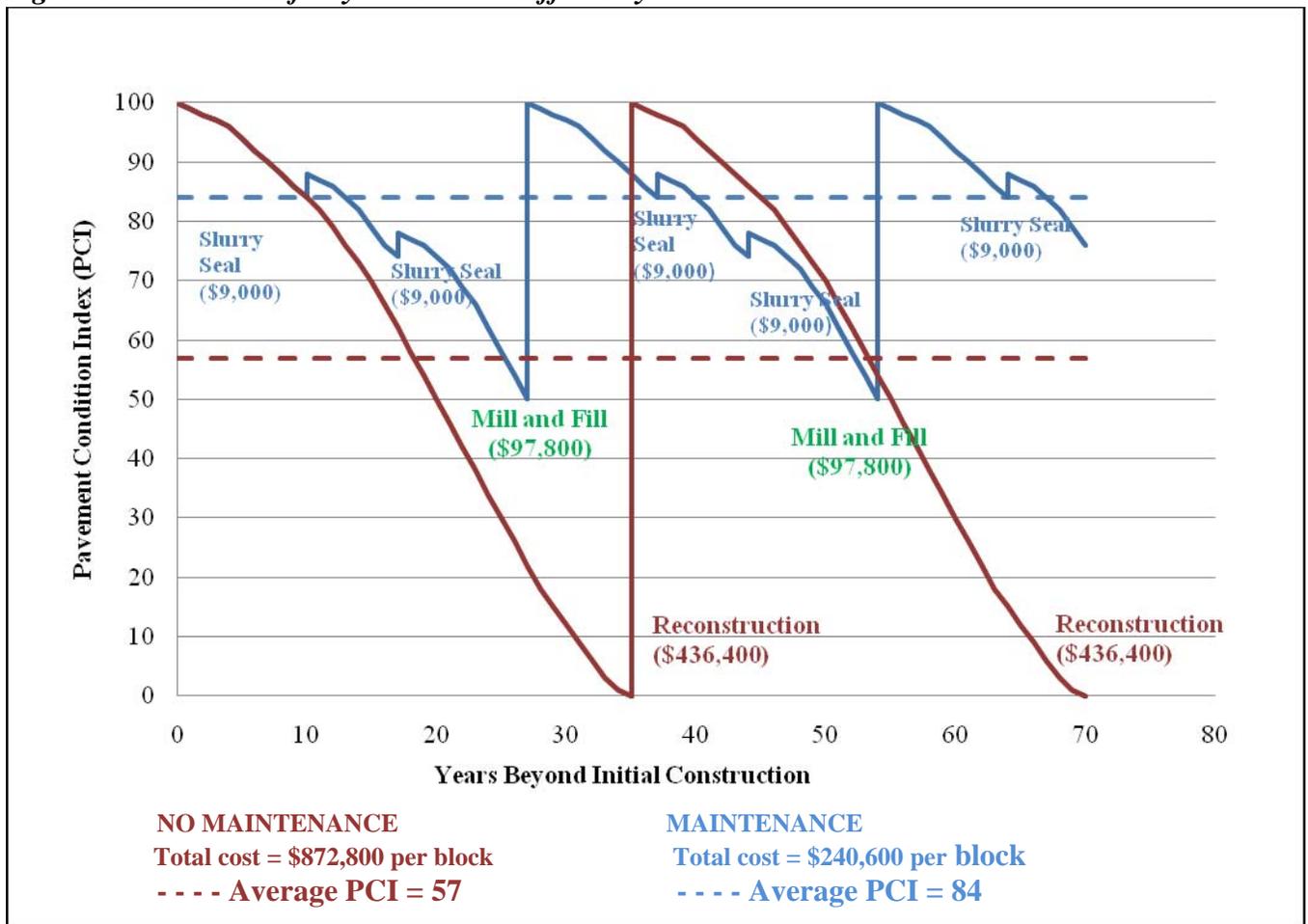
<sup>9</sup> Benchmark-Inc 2005

<sup>10</sup> Nichols Consulting Engineers, League of California Cities 2009

acceptable or optimal level, while stable funding sources are required to maintain an efficient PCI. Large one-time capital investments, therefore, should be made once specific funds are identified and secured to ensure the City can maximize its ability to perform cost-effective preventative maintenance.

**Figure 4** illustrates the potential cost savings that could be realized through preventative maintenance and demonstrates how costly reconstruction can be avoided. If the appropriate treatment is applied in a timely manner, a street with a starting PCI score of 100 could be maintained over the course of two life cycles for an average cost of \$240,600 per block and yield a “very good” average PCI score of 84. **Without preventative treatment the average cost per block more than triples** to \$872,800 and results in an “at-risk” PCI score of 57.

**Figure 4: Pavement Life Cycle and Cost Efficiency**



Source: Calculations based on PMMS models and DPW cost estimates.

Increasing the City’s overall PCI score to a 70 over the next 10 years will require the City to invest 19% more upfront when compared with maintaining a PCI of 64 (\$751 million vs \$629 million respectively). However **the cost to maintain a PCI of 70 in the following 14 years (FY’20 – 34) is lower than the cost to maintain a PCI of 64 in the same time frame.** See **Table 4** below and **Appendix D** for further cost details.

**Table 4: General Fund (General Fund)**

	<b>10 Year Need</b>	<b>Average Annual Cost to Maintain FY'20 – FY'34 (current dollars)</b>
Improve to PCI 64	\$629m	\$41.2m
Improve to PCI 70	\$751m	\$40.7m

Sources: Calculations based on PMMS estimates and the FY'11 Capital Plan

## FIXING OUR STREETS: A ROADMAP

In general, the City has three ways in which it could generate money for its Street Resurfacing Program:

1. Reallocate Existing Revenues: The Mayor and Board of Supervisors could reallocate existing revenues to increase funding for the Street Resurfacing Program by:
  - Committing more General Fund dollars. With increasing pressure on the discretionary portion of the General Fund, however, this is not likely to be viable without revenue surpluses or a voter mandated set aside.
  - Reallocating San Francisco’s gas tax revenues. Unfortunately this alone would still underfund the Street Resurfacing Program and would create a deficit in the Department of Public Works’ ongoing-street maintenance program for street cleaning, landscape maintenance and pothole repair.
  - Ask voters to approve a new expenditure plan that increases the share or total amount of the local Proposition K sales tax revenues programmed for street resurfacing. However, this would result in a lower level of funding for other City transportation programs (such as Doyle Drive and Bus Rapid Transit), all of which are also suffering similar cutbacks in resources from the state and other fund sources.
  
2. Issue Debt: The City has some capacity to issue general revenue bonds or certificates of participation (COPs) but without a new source of funding to maintain the increased PCI, the cost the City would accrue in debt service may surpass the savings. See **Appendix E** for more information on debt capacity.
  
3. Raise New Revenue: The City could raise new revenues through the following mechanisms:
  - Taxes
    - General taxes: used for general purposes, could not be specified for street resurfacing (*simple majority vote needed*)
    - Special taxes: taxes designated for special purpose such as street resurfacing (*requires 2/3rds voter approval*)
  - Assessments: Involuntary charge levied for a specific improvement only on those properties benefitted by the improvement. Charge is in direct proportion to the benefit received (*50% of affected property owners*)

- Fees: Any levy other than an ad valorem tax, a special tax, or an assessment, imposed upon a parcel or upon a person as an incident of property ownership (including tenants)
  - Non-property related (*no vote required*)
  - Vehicle registration fees (*simple majority vote needed*)
  - Property related (*2/3rds voter approval*)

The SRFWG held thirteen meetings between January and June to assess the extent of the City’s street resurfacing problem and to recommend potential funding sources. The SRFWG used the following criteria to evaluate each of the seventeen identified funding mechanisms described in the next section:

- *Revenue Generating Potential*: the range of revenue that each option could generate and the volatility of the underlying funding source
- *Equity*: the connection between those who bear the cost and those benefiting from improved street conditions
- *Administrative Complexity*: the ease to which an option could be implemented and the amount of time needed to do so
- *Political Feasibility*: the level of approval needed from the Board of Supervisors, the Mayor, the relevant voters, and/or the state for each option
- *Long Term sustainability*: the future availability of each option

## SEVENTEEN ALTERNATIVES CONSIDERED

The SRFWG analyzed seventeen separate funding options to meet future street resurfacing funding needs and categorized them as follows: Promising, Challenging, Long-Term, and Not Worth Pursuing. These are discussed in more detail below. (*NOTE: numbers are for convenience only and are not a rank ordering of the options by any criteria.*)

### Four Most Promising Options

#### 1. Local Vehicle Fees

In October 2009, Governor Schwarzenegger signed SB 83 (Hancock) into law, authorizing countywide transportation planning agencies such as the San Francisco County Transportation Authority (SFCTA) to place on the ballot an annual vehicle registration fee of up to \$10 on motor vehicles registered within the City and County of San Francisco for programs and projects that have a relationship or benefit to the owners of motor vehicles paying the fee. The SFCTA Board of Commissioners will vote whether or not to place the additional \$10 vehicle registration fee on the November 2010 ballot at its June 22 meeting.

Given the strong nexus between vehicles and street degradation, the street resurfacing program is in a good position to claim some of the revenue. However, the revenues of such a fee are modest. The SFCTA estimates it will bring in about \$5 million annually. Furthermore, these funds may be apportioned to various transportation agencies, subject to Board approval. The

draft thirty-year Expenditure Plan proposes 50% of the revenues (approximately \$2.5 million annually) for street resurfacing and repair.

In addition to SB 83, the State Assembly is currently considering an additional bill (SB 10, Leno) that would authorize the City to impose a voter-approved vehicle license fee for specified vehicles if certain conditions, including approval by 50% of local voters, are met. If the Assembly approves the bill, it would need to be approved by the Senate and the Governor before the City could place it on the ballot. The Municipal Transportation Agency (MTA) estimates SB 10 could bring in up to \$43 million annually<sup>11</sup>. These revenues would accrue to the City's General Fund where street resurfacing would compete with other City needs for funding.

## **2. Conditional General Tax**

The City could ask voters to approve a general tax (i.e., parcel, sales, payroll, or utility tax) that could only be collected as long as the City fulfilled a designated street resurfacing obligation (i.e., maintaining a specified PCI score or annual investment in streets). An advantage of a general tax is that it is subject to a simple majority vote (50%) of voters in the community, as opposed to the required two-thirds voter approval needed for a special tax. However because revenues generated from general taxes cannot be designated to a specific program, a new or increased general tax by itself would not guarantee additional funding for the Street Resurfacing Program.

Policymakers could increase the amount of General Fund support for the program as a result of increased General Fund revenues, but whether an increase in general taxes would actually lead to an increase in street resurfacing funding is uncertain since street resurfacing would have to compete with other City priorities. Given the City's historic underfunding of the program, it is reasonable to assume an increase in general taxes would not significantly impact the program's budget.

However, a general tax tied to street resurfacing expenditures or a PCI range would create an incentive for the City to invest in street resurfacing while providing the City with increased general revenue. The parcel, sales, payroll, or utility tax could only be collected if the City invested a specified amount of funding for street resurfacing in the previous year or maintained a set PCI.

## **3. Benefit Assessment Districts**

The California Constitution defines a benefit assessment as "any levy or charge upon real property by an agency for a special benefit conferred upon real property."<sup>12</sup> This involuntary charge is used to pay for a public improvement which provides a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large (general enhancements to property values are not considered special benefits).<sup>13</sup> The assessment levied must ensure that the relative benefit each taxpayer would gain from the service

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<sup>11</sup> The State Senate is currently proposing to increase the vehicle license fee as a means of generating revenue for the state. If successful, this would significantly decrease the revenue potential of SB 10.

<sup>12</sup> California Constitution Article XIIIID, Section 2[b]

<sup>13</sup> California Constitution Article XIIIID, Section 2[i]

is proportional to the amount they pay. Therefore, the methodology for assessing the benefit and assigning an assessment amount to each property can differ based upon how the revenues will be spent.

The California Constitution lists streets as a qualifying maintenance and operation expense for a benefit assessment.<sup>14</sup> One advantage a benefit assessment has over other revenue raising options, such as special taxes is its lower (50%) voter threshold. To levy an assessment the Board of Supervisors must first adopt a Resolution of Intention that describes the boundaries of the district, the improvement property owners will receive and the proposed assessment. Once the Board adopts the resolution and an engineer study is conducted,<sup>15</sup> ballots are mailed to all would-be affected property owners. For the initiative to pass, a majority of property owners casting a mail-in ballot, weighted in proportion to their assessed liability, must vote in favor of the initiative. If passed, the assessment is levied on property owners' property tax statement.

Another advantage of a benefit assessment relates to its ability to apportion costs in an equitable manner. Assessments must be levied on property owners in proportion to the benefit they receive from the service being assessed. The California Government Code<sup>16</sup> states when calculating the benefits of street repair, trip generation rates may be used to determine the proportional benefit each parcel will receive.

Currently the SFCTA estimates that 4.2 million automobile trips are generated within the City each day and predicts this number will increase to 4.8 - 4.9 million by 2030. A significant portion of these trips come from nonresidents who travel to San Francisco for work, commerce and leisure. Consequently, the City's daytime population is estimated to swell nearly 17%.<sup>17</sup> While this significant rise in daytime nonresident population increases the complexity of pricing road usage and assessing the benefit of improvements to property owners, a benefit assessment district could capture the nonresident benefit by assessing properties used for work, commerce and leisure. This helps spread the cost of maintaining city streets more equitably to those receiving the benefits of improved pavement conditions. See **Appendix F** for further discussion on charging for street usage.

### 3a. Citywide Benefit Assessment District

There are different ways Benefit Assessment Districts could be used to support street resurfacing. Establishing a citywide district would be the easiest way to create an assessment district. It requires one resolution/public hearing, one engineer's report and one mail-in vote. The special benefit parcels would receive would be the benefit derived from the difference between the City's current road condition and the condition the special assessment would yield. No parcel can be exempt from the assessment so properties such as tax-exempt nonprofits and government buildings would be subject to the assessment.

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<sup>14</sup> California Constitution Article XIII A

<sup>15</sup> After the Board adopts a resolution, an engineer's study must be conducted to calculate the distinct benefit each land parcel within the district would receive. The benefit calculated would be used to determine an assessment rate that is in direct proportion to the benefit that parcel is receiving.

<sup>16</sup> California Government Gov Code Sec. 54711 (e)

<sup>17</sup> 2000 U.S. Census

To ensure that the levied assessment does not replace the City's responsibility for street resurfacing, the benefit assessment could be structured such that an assessment would only be collected as long as the City fulfilled its street resurfacing obligation. This obligation could potentially take the form of a monetary threshold (e.g. as long as the City spends a specified amount in the previous year, an assessment will be collected) or based on maintaining a certain PCI threshold (e.g. as long as the average PCI score remains above a designated amount, an assessment can be collected).

However, citywide assessment districts are rare given the legal issues surrounding the notion of a "special benefit." Both Santa Clara<sup>18</sup> and Tiburon<sup>19</sup> were recently unsuccessful in creating assessment districts on the grounds that the benefit created and to which the assessment was levied against was not a special benefit, but rather a general benefit. The court ruled that the proposed assessment was not proportional to the special benefit property owners would receive and thereby in direct violation with Proposition 218.

In the Santa Clara case, the Court ruled "If a proposed project will provide both general benefits to the community and special benefits to particular properties, the agency can impose an assessment based only on the special benefits. It must separate the general benefits from the special benefits and must secure other funding for the general benefits."<sup>20</sup> The City would have to establish precise methodology for calculating the special benefit received by each property owner.

Additionally, the City of Oakland created a citywide assessment district to fund landscaping and lighting activities throughout the city which is still in effect today. The assessment was created before the 1996 passage of Proposition 218<sup>21</sup>, which tightened the ways in which jurisdictions could use benefit assessments; however this assessment has been reauthorized every year since its establishment and remains unchallenged. Currently, all real property in Oakland is subject to an annual assessment, which, depending on location, is \$76.98 or \$83.66 for a condominium unit, \$102.64 or \$111.54 for single family parcels, and higher for larger residential property and for commercial property.<sup>22</sup>

### **3b. Separate Benefit Assessment Districts**

In legal terms, the easiest way to utilize the concept of a benefit assessment district would be to propose separate assessment districts by, say, neighborhood or district and ask property owners to vote on increased resurfacing services within that area. Establishing benefit assessment districts has the benefit of giving people the ability to opt for a higher level of street resurfacing service. It also poses no obvious legal challenges as the special benefit is more clearly defined.

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<sup>18</sup> Silicon Valley Taxpayers Association v. Santa Clara County Open Space Authority (2008) 44 Cal.4th 431

<sup>19</sup> *Town of Tiburon v. Bonander* (2009) 180 Cal.App.4th 1057

<sup>20</sup> *Silicon Valley, supra*, 44 Cal.4th at p. 450.

<sup>21</sup> Approved by voters on November 5, 1996, Proposition 218 significantly changed local government finance. It amended the California Constitution (Articles XIII C and XIII D) requiring local governments to have a vote of the affected property owners for any proposed new or increased assessment before it could be levied. Prior to its passage, local government agencies were not required to obtain ballot approval from the property owners before levying street lighting assessments; only council approval was required, even if there were significant protests.

<sup>22</sup> City of Oakland 2010

However, the disadvantages of this option outweigh its legal advantages. First, separate districts would segregate the City into the haves and the have nots. Currently, DPW ensures the street network is maintained uniformly across the City, therefore there is no area or neighborhood that would stand to benefit more from street resurfacing than another. However with separate benefit districts, there is a risk that lower income neighborhoods whose residents cannot afford to pay for improved streets would be subject to poorer road conditions. The City could try to avoid this scenario by exploring the possibility of dividing the City into districts composed of both high and low income areas, but this would require further study and resources.

Separate assessment districts would also require DPW to adopt a more complex budgeting and street repaving methodology in addition to imposing a higher administrative burden on the City. Multiple resolutions, engineer reports and mail-in ballot votes would be needed – all of which would cost more money. Furthermore, this strategy does not guarantee that increased funding for streets would be achieved as voters may choose not to pay for improved conditions.

#### **4. Increase the Local Sales Tax for Transportation**

The SFCTA is authorized to levy a sales tax up to 1% to support transportation projects included in an approved expenditure plan (Public Utilities Code sections 18000 et seq.). As mentioned earlier, when voters passed Proposition K in 2003, they authorized the SFCTA to administer a half-cent sales tax to fund a specified expenditure plan of transportation projects and programs. Less than 5% of Proposition K revenues are dedicated to street resurfacing. With San Francisco's current sales tax rate at 9.75% and a local cap set at 10%, the SFCTA has the authority to place an additional ¼ cent sales tax before the voters for approval. (Note: Unless actions are taken at the state level, a 1% statewide sales tax increase is set to expire on June 30, 2011, providing up to 1.4% additional capacity for local sales tax measures in San Francisco.)

The City Controller's Office estimates that if the sales tax was increased by ¼ cent it could generate approximately \$34 million annually. However, if the local sales tax was increased, it is unclear how much street resurfacing would receive. Given other City departments have also been looking at a ¼ cent sales tax, new sales tax revenues may have to be split among different services. Given the strong nexus between commerce, traffic and street deterioration, street resurfacing should be considered for any revenues an increased transportation sales tax would bring.

### **Six Challenging, but Possible Options**

#### **5. The General Fund**

The General Fund has not historically supported the Street Resurfacing Program.<sup>23</sup> Given the limited and highly competitive nature of discretionary General Fund dollars, the SRFWG felt it was unrealistic to assume the entire funding shortfall for improving the City's streets could be covered by it. The FY2011-2020 Capital Plan recommends spending \$221 million of General Fund dollars on street resurfacing over the next ten years. However, even at this proposed record

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<sup>23</sup> General Fund dollars have only been allocated to streets in recent years when there are one-time increases in discretionary revenue or the City has committed to issuing General Fund-backed debt (Certificates of Participation). See the section "Current Funding: On the Edge of a Cliff" above.

investment, the overall condition of the streets would still decline over the next decade from a PCI of 63 to a PCI of 62 without additional funding. While SRFWG acknowledges that the General Fund is an appropriate source to help support the program, it recognizes that competing public services coupled with a limited pool of discretionary dollars make it an unreliable source. Increasing General Fund revenues could increase the likelihood of more funding for street resurfacing. In particular, the SRFWG supports SB 10 (Leno), which would increase the vehicle license fee, providing up to an estimated \$43 million annually to the General Fund (see Recommendation #1).

## **6. Citywide Special Parcel Tax**

The Board of Supervisors could ask voters to approve a special tax to fund streets. Before placing it on the ballot the City would have to hold a public hearing on the proposed tax and adopt a resolution indicating its purpose, rate, and method of collection.<sup>24</sup>

Special taxes can be structured in various ways; however they cannot be levied on a property value basis. Unlike a fee or an assessment, a special tax does not have to ensure that the relative benefit each taxpayer gains from the program(s) supported by the tax is proportional to the amount they pay.

A special tax for street resurfacing that is designed to consider taxpayers use of the street network, may increase the chances of a tax passing at the ballot. However, when structuring the tax, policy makers should keep in mind that the more complicated the tax, the more challenging it will be to gain voter approval.

The general implications of this approach should also be taken into consideration. Voters are being asked to pay for a core city service that only the City is capable of providing. Some will argue that asking residents/property owners to pay a special tax for such a service sets a bad precedent. However, discretionary funding has been severely limited as a result of voter approved set-asides. Consequently, the amount of general fund discretionary funding available for core services, like street repair is limited.

## **7. Community Facilities Districts (Mello-Roos)**

The Mello-Roos Communities Facilities Act of 1982 enables cities, counties and special districts to establish community facilities districts (CFDs) to levy special taxes for a variety of capital facilities and services including the purchase, construction, expansion, improvement or rehabilitation of real property with a useful life of five years or more. It can also be used to fund on-going maintenance of real property.<sup>25</sup> However, the district may only finance these services to the extent that they are in addition to those provided before the district was created. A citywide CFD could be established to help fund the Street Resurfacing Program, although any tax levied would be subject to a two-thirds vote among registered voters within the district. To create a CFD, the Board must adopt a Resolution of Intention that describes the name of the CFD, its boundaries, tax conditions and the public hearing schedule.<sup>26</sup>

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<sup>24</sup> Government Code sections 50075 et seq

<sup>25</sup> Government Code Sections 5331 et seq.

<sup>26</sup> Government Code section 53321

CFDs are designed to be flexible. The tax does not need to be equivalent to the benefit received nor must it be evenly applied throughout the district. Properties that generate higher amounts of vehicle traffic could be charged a higher tax rate. Additionally, a CFD can be broken into improvement districts that could vote to tax themselves for improvements. To pass a tax, two-thirds of registered voters in the district must approve it.<sup>27</sup>

## 8. A Flexible General Fund Set Aside

In the past decade, an increasing number of set asides has limited the percentage of the General Fund that the Mayor and the Board have discretion to appropriate for non-dedicated purposes. In fiscal year 2008, of the \$2.82 billion in the General Fund, approximately \$1.11 billion (18% of the City's total budget) was truly discretionary.

One way to ensure the Street Resurfacing Program receives adequate funding without drastically hindering policymakers' ability to make necessary budget cuts, is to establish a flexible set aside that ties spending to an average PCI score. As illustrated in previous sections, on an individual basis, a street can be left untreated for some time without adding to bottom line costs. A flexible set aside could be structured so that the average PCI score for all City streets must remain above a set threshold.

With a flexible set-aside, the City would be required to either spend an average dollar amount or maintain a set average PCI score over a designated time period. However, it would have the flexibility to defer some maintenance so long as the PCI score does not drop below a certain threshold. Different thresholds could be set for different streets depending on their use. For example, the threshold for a street with bike lanes might be higher than low trafficked residential streets. This may help garner support among voters who typically favor alternative transportation, although it would increase the City's administrative burden.

A set-aside can be enacted by a 2/3 majority vote. However, there is evidence to suggest that voters' attitudes toward set-asides are becoming less tolerant. In 2008, voters passed Proposition S, which was designed to curb the decline of the General Fund available for discretionary spending by requiring that all proposed set-asides be tied to a new revenue source and that they expire no later than 10 years from origination. See **Appendix G** for more details on the City's current set-asides.

## 9. Transportation Utility Fee

A Transportation Utility Fee (TUF) is a fee levied on properties to cover costs of maintaining the roads. TUFs are based on the idea that street networks are public utilities, thus jurisdictions have the right to charge a fee to cover the costs of maintaining the network without a public vote. Typically, TUFs are assessed based on the volume of vehicle trip-ends generated by particular land uses. The advantages of using a TUF are: 1.) It establishes a direct connection between the demand for street use and the costs of maintaining the service; 2.) It is fairly easy to implement (normally they are assessed monthly on a public utility bill) and 3.) If established as a service or regulatory fee, no public vote is required to implement them. However, the legal challenges

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<sup>27</sup> Government Code section 53350

associated with a Transportation Utility Fee (TUF), render it a highly unlikely financing option for the street resurfacing program.

First, no California jurisdiction has ever imposed such a fee. In order to establish the fee, the City would have to get the State Legislature to change or waive the California Vehicle Code provision which states that no local agency may impose a tax, permit fee or other charge for the privilege of using its streets or highways other than a permit fee for extra loads.<sup>28</sup> However, the State recently waived this provision for SB 83 and granted jurisdictions the authority to impose a fee on local vehicle registrations subject to voter approval.

Once the City has gained permission to impose a fee, it would then have to distinguish TUF as a fee.<sup>29</sup> In the past some courts outside of California have ruled that a TUF is a special tax rather than a fee given its non-distortionary properties (i.e. residents cannot control the amount they pay by altering their level of street usage). In response, jurisdictions have offered discounts or exemptions to residents that serve as a way to provide individuals some control over their level of utilization.

Establishing a TUF as a non-property related service fee would be the easiest way for the City to implement the charge, as no vote is required. However the general ambiguity surrounding the definition of a “property related fee or charge” in Proposition 218 (Section 6) will make it difficult to argue that TUF is a service rather than a property-related fee. Proposition 218 states that all charges on property as an incident of property ownership must be a tax, assessment or property-related fee. If a charge on property is not a tax or an assessment, it is a property-related fee.

Courts have ruled that any charge imposed as an incident of property ownership, regardless of whether the fee was imposed by virtue of ownership, is in fact a property-related fee that requires approval from either a majority of property owners or two-thirds of the general electorate.<sup>30</sup> To further complicate matters, Proposition 218 prohibits jurisdictions from levying property related fees to support general governmental services that are available to the public at large. Whether street resurfacing qualifies as a general governmental service is another large legal uncertainty.

## **10. Levy a Street Maintenance Fee on Utility Bills**

The City could charge a street maintenance fee on monthly SFPUC bills for the portion of street repaving costs caused by underground sewer and water work. This would require a nexus study between the streets and the utilities beneath. As a fee, it does not require voter approval. Courts have ruled that the City’s franchise agreement with PG&E prohibits levying this fee on those utility bills. Such a fee could potentially be applied to the City’s contract with Comcast when their contracts are up for renegotiation. The City could also impose a fee on garbage collection trucks (when the City renegotiates its contract with Recology), which the refuse companies could recover through garbage rates.

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<sup>28</sup> California Vehicle Code Section 9400.8

<sup>29</sup> If a fee is subjected to legal challenge, the jurisdiction that is charging the fee carries the burden of proving that it is not a special tax (Government Code section 50076.5).

<sup>30</sup> Apartment Association of Los Angeles County, Inc. et al. v. City of Los Angeles (1999)

## **Three Long-Term Strategies**

### **11. Congestion Pricing**

In 2007, the SFCTA received a \$1 million federal grant to conduct a mobility, access and pricing study that examines the feasibility of using congestion pricing as a means of improving mobility in the City. The study explores the technical and economic feasibility of congestion pricing as well as design concepts and pricing scenarios. The SFCTA is finalizing the study this summer/fall. Any discussion of congestion pricing should consider the maintenance needs of local streets and roads as a possible use of revenue generated through pricing.

### **12. Reduce the Voter Threshold for Local Revenue Measures**

Lowering the approval threshold from a strict 2/3<sup>rds</sup> supermajority to 55 percent for infrastructure related projects (as Prop 39 did for school bonds in 2000 and a recent Constitutional Convention has suggested), would increase the likely passage of local tax and bond measures. This has long been a desire of transportation planners and advocates but has failed to gain political traction.

### **13. Dedicate Parking Revenues/Citywide Parking Permit**

The City Charter currently mandates that all parking related revenues be used to directly support MUNI and transit. Currently, MTA is working on revisions to the residential parking permit program citywide and various other parking related initiatives, including a citywide parking permit for nonresidents, to both improve parking policies and generate revenues for Muni service. Given MUNI's budget shortfall, it is unrealistic to expect that any revenues from parking revenues or a citywide parking permit will be directed towards street resurfacing at this time. However, the strong nexus between parking and street repair cannot be ignored. The City may want to revisit the reallocation issue in the future.

## **Four Strategies Not Worth Pursuing**

### **14. Charge a Road Impact Fee or Amend San Francisco's Development Impact Fee**

At least 17 other CA jurisdictions charge impact fees on new development to help pay for transportation infrastructure, yet San Francisco's development impact fee only supports transit. Because San Francisco is mostly built-out, and fees for new development areas have already been set, this would likely provide only a modest level of revenue. Furthermore, development impact fees are already set aggressively and, as they are based on a volatile economy, are not reliable long-term revenue sources.

### **15. Create a Special Tax on the Sale of Gasoline**

The Local Motor Vehicle Fuel Tax Law (California Revenue and Taxation Code, Section 9501 et. seq.) provides the Board of Supervisors the authority to place on the ballot a tax on fuel for street repair and maintenance for approval by two-thirds of voters. Based on 2008 gas consumption estimates,<sup>31</sup> a 5¢/gallon tax could raise \$8.2m in yearly revenue.

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<sup>31</sup> SF Department of Economic Analysis used US Department of Energy fuel price statistics to extrapolate implied gallons of gasoline *sold* for 2008. It estimates that 163.2 million gallons were sold in San Francisco; however this analysis was never officially finalized. The California Department of Transportation also conducted a study of fuel consumption in the state, and estimated that, in 2008, 160.9 million gallons of gasoline were *consumed* in the City of San Francisco which is in line with the Department of Economic Analysis estimates.

However there are many disadvantages of this option. First, no other jurisdiction in California has imposed a local motor vehicle fuel tax. As a result, the Board of Equalization (BOE) has stated that San Francisco would have to bear the cost of programming the new collections system, in addition to the normal collection costs it would charge. Another argument against this option relates to the idea that drivers could go outside of the City to purchase fuel, further hurting San Francisco gas retailers, which have struggled to remain open in recent years.<sup>32</sup> Business advocates have continually argued that the cost of doing business in San Francisco is already too high and would be unlikely to support a local gas tax initiative.

Another problem with dedicating the gas tax to capital purposes is its poor growth potential. California's 18¢ per gallon gas tax has not been increased since 1994 and it is not indexed to inflation. Its purchasing power decreases with each passing year.

### **16. Implement a Regional Gas Tax**

The MTC is authorized to implement a regional gas tax of up to 10¢ for the Bay Area. In order to enact the tax, two-thirds of voters in the nine-counties would need to approve the measure. In 2007, MTC estimated that such a tax could bring in \$300 million annually. However, MTC staff is not optimistic about the option given the high voter threshold. As an alternative, the MTC has expressed interest in a regional motor fuel mitigation fee which it is hoping the legislature will consider later this year. However, that fee would most likely be restricted to the implementation of MTC's *Sustainable Communities Strategy*. The MTC predicts street resurfacing would not be a high priority and might not even be eligible.

### **17. Reallocate San Francisco's Gas Tax Revenues**

The City receives approximately \$21 million in gas taxes annually (Highway Users Tax Account) of which approximately \$3.5 million is appropriated to the MTA for traffic engineering expenses, and approximately \$3 million is appropriated to pay debt service on COPs for street resurfacing, curb ramps and other capital improvements in the right-of-way. The remaining \$14 million is used to fund annual operating expenses for street cleaning, landscape maintenance and pothole repair. Unlike in many other local jurisdictions, none of the revenue from the gas tax is used for street resurfacing. Instead, revenue is used to fund street cleaning, landscape maintenance and pothole repair. If the Department of Public Works were to dedicate its entire portion of the gas tax to street resurfacing, DPW estimates that the program would still face a shortfall and other alternative sources of funds would be needed to cover the costs of cleaning, landscape and pothole repair.

## **RECOMMENDATIONS**

The City has reached a point where it can no longer afford to let its streets continue to decline. A further drop in pavement conditions will result in significantly higher and unavoidable costs to taxpayers in the future. It is in the taxpayers' best interest that the City's overall PCI score be

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<sup>32</sup> It is estimated that the number of gas stations in the City of San Francisco has dropped from 450 in the 1970s down to 150 in 1991, when the City passed ordinances aimed at preventing the further closure of gas stations, then disappearing at a rate of about one per month (Ammiano, 2007). According to the Bureau of Labor Statistics there are currently 70 gas stations operating within the City.

raised to a more cost effective level. To do so, the City would need to invest \$380 - \$502 million over the next ten years.

After carefully considering all seventeen options discussed above, the SRFWG unanimously agreed to the following recommendations:

**RECOMMENDATION 1:** Over the next ten years, the City should raise its overall PCI score to 70 using a combination of funding sources. A PCI score of 70 will ensure the City's overall street network is safer and allow the City to capture cost savings associated with maintaining pavement in good condition.

**RECOMMENDATION 2:** Street Resurfacing should be a top contender for any revenue generated by new local vehicle fees. There is a strong nexus between vehicle use and street deterioration. Additionally, vehicle fees have the added advantage of being user fees: those who choose not to register vehicles in San Francisco are not subject to them. There are currently two new vehicle fees in various stages of consideration:

SB 83 (Hancock) authorized SFCTA to place before voters an annual vehicle registration fee of up to \$10 on registered motor vehicles in the City and County of San Francisco for project or programs that have a relationship or benefit to the vehicle owners paying the fee. If the initiative is passed by a simple majority of voters, the SFCTA estimates it will generate \$5 million in revenue per year. The SFCTA Board of Commissioners will vote whether or not to place the additional \$10 vehicle registration fee on the November 2010 ballot at its June 22 meeting. Right now the draft Expenditure Plan proposes 50% or about \$2.5 million annually for street resurfacing.

SB 10 (Leno): the State Assembly is currently considering an additional bill that would authorize the City to impose a voter-approved local assessment (vehicle license fee) for specified vehicles (50%). The SFCTA estimates it could bring up to \$43 million in revenue per year. While the SB 83 revenues would be committed to an Expenditure Plan of projects that bear a relationship to the vehicle owners paying the fee, the SB 10 revenues would go to the General Fund and could not be committed specifically to transportation purposes, forcing street resurfacing to compete with other City priorities for the revenues.

**RECOMMENDATION 3:** The City should continue to work on the following long-term state legislative solutions:

- Increasing vehicle license fees;
- Lowering the voter threshold for approval of transportation general obligation bonds;
- Supporting street resurfacing as an eligible use of funds should the City authorize congestion pricing;
- Raising the state sales/excise tax on gasoline; and
- Increasing San Francisco's share of the state gas tax by changing allocation formulas.

**RECOMMENDATION 4:** Existing state, federal and local sources are inadequate to maintain even the existing 'fair' condition of San Francisco's streets. The three best near-term options to

raise new revenue for street resurfacing are a conditional general tax, a citywide benefit assessment district, and a parcel tax. These options were selected based on their revenue generating potential, ability to spread the cost burden, long term sustainability, political feasibility and ease of implementation.

**4a:** A Conditional General Tax would allow the City to collect a general tax (in the form of a sales, business, or utility users tax) if in the previous year it spent a certain dollar threshold on street resurfacing. A Conditional General Tax would only require a simple majority of voters to approve, provides the City the incentive to invest in the street resurfacing program without tying its hands, and has high revenue generating potential (a ¼ cent sales tax increase is estimated to bring in \$32m annually to the City).

**4b:** A citywide Benefit Assessment District would create a new property assessment for street resurfacing that can be based on the number of auto trips generated by a particular land use and can be structured in a way that holds the City responsible for maintaining the current street condition. While a citywide Benefit Assessment District would take time to establish and would obligate the City to pay for the benefit its properties received, it could be enacted by a simple majority of mail in responses, would generate significant revenues that could be used to issue bonds, and would equitably distribute costs to those who directly benefit.

**4c:** A Parcel Tax based on Trip Generation would allow the City to levy a special parcel tax on all property owners, based on the amount of vehicle trips their property generates. This would require a supermajority (2/3rds) of voters to enact but would be quicker and easier to initiate than a Benefit Assessment District, would also generate significant revenue that could be used to issue bonds, and would equitably distribute costs to those who directly benefit. Also, unlike a Benefit Assessment District, exemptions or discounts could be made for designated categories such as low-income residents or properties that generate less traffic.

**RECOMMENDATION 5:** Once an ongoing revenue stream has been identified, the City should consider issuing bonds against that revenue to immediately improve the City's street conditions. Factors such as interest rates, bond issuance costs, existing debt service, and the City's bond rating are issues the City will have to consider. However, if the City has secured stable funding for the street resurfacing program, it should bond if it is able to, as an increase in the overall PCI will allow it to capture the associated cost savings of maintaining pavement in good condition.

## **CONCLUSION AND NEXT STEPS**

Streets are one of the few City services that are utilized by every San Francisco resident, visitor and business. However, San Francisco's Street Resurfacing Program has been unable to successfully compete with other public needs. As a result, the program has been historically underfunded and pavement conditions have been steadily deteriorating for more than two decades. Imperfect pavement conditions are not typically thought of as an urgent need, but years of underinvestment is finally catching up to the City. The City's street network has reached its

tipping point: nearly half of all City streets now require costly mill and fill resurfacing or total reconstruction.

The SRFWG's research shows that timely resurfacing maintenance prevents the need for base reconstruction, which costs nearly 4.5 times more than replacing the surface asphalt layer. The group found that over the course of 70 years (two pavement lifecycles), failure to maintain streets could end up costing the City 3.6 times more and result in average pavement conditions that are unsafe for motorists, pedestrians, cyclists and transit riders. Additionally, poor street conditions impede public mobility and commerce. Timely preventative maintenance greatly decreases costs while enabling the City to achieve a higher pavement condition score.

The SRFWG found that the program is facing a ten year budget shortfall of between \$282 and \$502 million. Without a new funding source, the overall condition of City streets is expected to deteriorate to a PCI score between 53 (with no General Fund commitment) and 62 (given the record General Fund commitment proposed in the FY2011-2020 Capital Plan). A further decrease in pavement conditions will drive up future renewal costs, hinder mobility and threaten public safety.

The magnitude of the shortfall and its consequences, coupled with the current recession, make the street resurfacing dilemma particularly challenging. The SRFWG was unable to find a viable source capable of bridging the entire budget gap on its own. As a result the group evaluated an array of funding options and came up with a package of recommendations it believes represent the most realistic funding vehicles given their revenue generating potential, ability to distribute the cost burden equitably, administrative complexity, political feasibility and long term sustainability.

Based on these criteria, the SRFWG recommends that the City take the following actions to help address the street resurfacing problem:

1. Improve the overall PCI score to 70 over the next ten years;
2. Prioritize street resurfacing for any revenue generated by new local vehicle fees;
3. Continue to work on long-term legislative solutions;
4. Explore new revenue streams for the Street Resurfacing Program through a conditional general tax, a benefit assessment district or a parcel tax based on trip generation ; and
5. Bond against any new revenue stream to raise the overall state of its streets to a more cost effective condition and avoid the added expense of total street reconstruction.

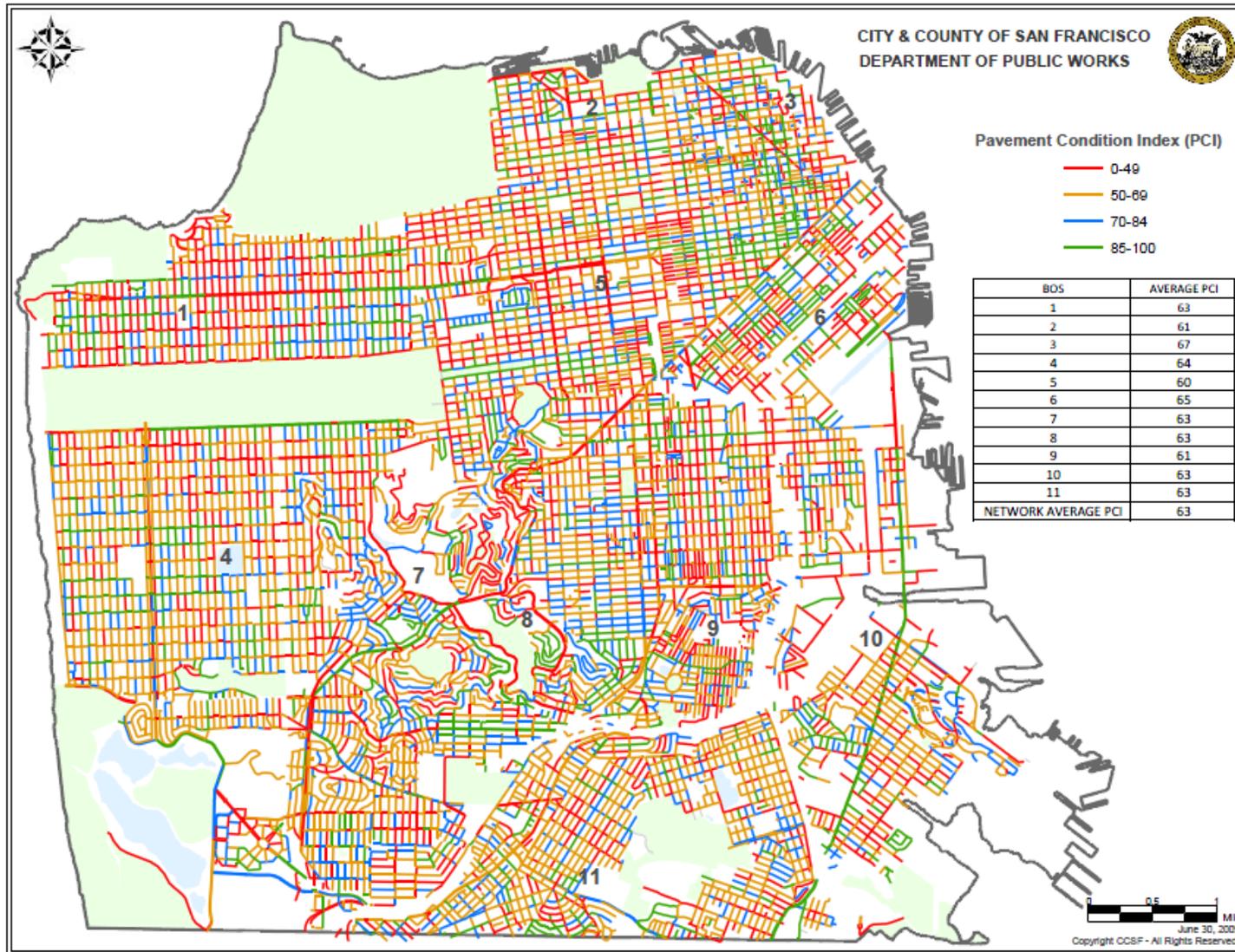
Determining how to fund the Street Resurfacing Program has been a problem the City has grappled with for decades. There is no question that the recommendations laid out in this report will require time, work and consistent leadership. However, failure to begin addressing the problem now will only result in higher costs and poorer streets. In addition to the five recommendations described above, the SRFWG advises that the City take the following four specific next steps to begin working towards permanent solutions.

1. Place SB83 additional vehicle registration fee Expenditure Plan measure on the November 2010 ballot.
2. Request that the Office of Economic Analysis examine the long-term economic impact of poor street conditions on the City.

3. Conduct further legal research on the three recommended revenue options with consideration for deadlines for the November 2010 and 2011 ballots and the FY2012-2021 Capital Plan.
4. Conduct broader public outreach on the three proposed revenue sources, narrowing the options based on feedback by Fall 2010 and refining solutions and overall approach by Winter 2011.

Maintaining good pavement conditions keeps individuals safe, saves taxpayers money, promotes economic activity and public mobility, and supports the City's Transit First policy and Better Streets Plan. Unfortunately, existing and projected revenue sources are insufficient to maintain even the current 'Fair' condition of our streets and failure to secure additional revenues will require the City to pay exponentially more for total reconstruction of our streets as they continue to decline. After years of underinvestment, the City must act aggressively to pursue both short and long term funding for its Street Resurfacing Program. This report represents the first step in that direction.

# APPENDIX A: MAP OF SAN FRANCISCO STREETS AND PCI SCORES





## APPENDIX B: OVERVIEW OF OTHER JURISDICTIONS

### Bay Area PCI Scores

Jurisdiction	Lane Miles	PCI Score
Santa Clara	596	82
Palo Alto	470	72
San Rafael	331	70
Fremont	1,063	66
San Jose	4,186	63
San Francisco	2,112	63
Berkeley	453	60
Oakland	1,964	58
Napa	464	55
Richmond	549	53
<b>Regional</b>	<b>42,492</b>	<b>66 (average)</b>

### Street Resurfacing Funding Sources Across Bay Area Select Counties

County	Local Revenue	Sales Tax	Gas Tax	Prop 42	Prop 1B
Alameda	26%	16%	19%	38%	2%
Contra Costa	29%	25%	17%	27%	1%
Marin	44%	12%	22%	20%	1%
Napa	46%	0%	19%	33%	1%
<b>San Francisco</b>	<b>35%</b>	<b>12%</b>	<b>0%</b>	<b>50%</b>	<b>2%</b>
San Mateo	21%	29%	25%	24%	1%
Santa Clara	15%	0%	36%	47%	2%
Solano	16%	0%	27%	54%	2%
Sonoma	44%	10%	10%	34%	1%
REGION	27%	14%	20%	36%	2%

Source: Metropolitan Transportation Committee<sup>33</sup>

<sup>33</sup> Table is based on information that local jurisdictions submitted to the Metropolitan Transportation Committee via the Local Streets & Roads Revenue Needs and Performance survey conducted in January 2009. It does not include funding from federal sources. The revenues that are not used for capital maintenance are assumed to be used for routine maintenance and operations.

## APPENDIX C: 10 YEAR STREET RESURFACING BUDGET

NEED (PCI 63)	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Capital - Annual	39,721,500	41,707,575	43,792,954	45,982,601	48,281,732	50,695,818	53,230,609	55,892,139	58,686,746	61,621,084	499,612,758
Capital - Preventive Maintenance	1,228,500	1,289,925	1,354,421	1,422,142	1,493,249	1,567,912	1,646,307	1,728,623	1,815,054	1,905,807	15,451,941
<b>TOTAL NEED for PCI 63</b>	<b>40,950,000</b>	<b>42,997,500</b>	<b>45,147,375</b>	<b>47,404,744</b>	<b>49,774,981</b>	<b>52,263,730</b>	<b>54,876,916</b>	<b>57,620,762</b>	<b>60,501,800</b>	<b>63,526,890</b>	<b>515,064,699</b>

NEED (PCI 64)	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Capital - Annual	48,500,000	50,925,000	53,471,250	56,144,813	58,952,053	61,899,656	64,994,639	68,244,370	71,656,589	75,239,418	610,027,788
Capital - Preventive Maintenance	1,500,000	1,575,000	1,653,750	1,736,438	1,823,259	1,914,422	2,010,143	2,110,651	2,216,183	2,326,992	18,866,839
<b>TOTAL NEED for PCI 64</b>	<b>50,000,000</b>	<b>52,500,000</b>	<b>55,125,000</b>	<b>57,881,250</b>	<b>60,775,313</b>	<b>63,814,078</b>	<b>67,004,782</b>	<b>70,355,021</b>	<b>73,872,772</b>	<b>77,566,411</b>	<b>628,894,627</b>

NEED (PCI 70)	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Capital - Annual	57,927,188	60,823,547	63,864,724	67,057,960	70,410,858	73,931,401	77,627,971	81,509,370	85,584,839	89,864,080	728,601,939
Capital - Preventive Maintenance	1,791,563	1,881,141	1,975,198	2,073,958	2,177,655	2,286,538	2,400,865	2,520,908	2,646,954	2,779,301	22,534,081
<b>TOTAL NEED for PCI 70*</b>	<b>59,718,750</b>	<b>62,704,688</b>	<b>65,839,922</b>	<b>69,131,918</b>	<b>72,588,514</b>	<b>76,217,940</b>	<b>80,028,837</b>	<b>84,030,278</b>	<b>88,231,792</b>	<b>92,643,382</b>	<b>751,136,020</b>

### PROPOSED FUNDING

General Fund	10,243,973	13,276,394	15,376,324	17,300,579	19,216,867	23,104,139	25,826,852	28,838,442	31,849,897	35,718,277	220,751,744
Proposition K <sup>1</sup>	3,000,000	3,100,000	3,200,000	3,300,000	3,400,000	3,620,000	3,730,000	3,840,000	3,960,000	4,080,000	35,230,000
AB 6 and AB 9 (replaces Prop 42) <sup>2</sup>	14,883,507	14,639,335	15,517,950	16,449,108	17,436,122	18,486,367	19,591,006	20,766,462	22,641,840	23,795,872	184,207,568
Proposition 1B <sup>3</sup>	4,434,233	-	-	-	-	-	-	-	-	-	4,434,233
Surface Transportation Program (Fed)	3,000,000	3,000,000	2,000,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	2,400,000	24,800,000
<b>TOTAL FUNDING</b>	<b>35,561,713</b>	<b>34,015,728</b>	<b>36,094,274</b>	<b>39,449,687</b>	<b>42,452,989</b>	<b>47,610,505</b>	<b>51,547,858</b>	<b>55,844,905</b>	<b>60,851,737</b>	<b>65,994,149</b>	<b>469,423,545</b>

<b>TOTAL SURPLUS/DEFICIT (PCI 63)</b>	<b>(5,388,287)</b>	<b>(8,981,772)</b>	<b>(9,053,101)</b>	<b>(7,955,056)</b>	<b>(7,321,992)</b>	<b>(4,653,225)</b>	<b>(3,329,059)</b>	<b>(1,775,858)</b>	<b>349,937</b>	<b>2,467,259</b>	<b>(45,641,154)</b>
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TOTAL SURPLUS/DEFICIT (PCI 64)	(14,438,287)	(18,484,272)	(19,030,726)	(18,431,563)	(18,322,324)	(16,203,573)	(15,456,924)	(14,510,116)	(13,021,035)	(11,572,262)	(159,471,082)
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TOTAL SURPLUS/DEFICIT (PCI 70)	(24,157,037)	(28,688,959)	(29,745,648)	(29,682,231)	(30,135,525)	(28,607,434)	(28,480,979)	(28,185,374)	(27,380,055)	(26,649,233)	(281,712,475)
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NOTES:

\* Distribution of Regional and Federal funding for local street and road maintenance is based on an allocation formula contains four factors, weighted 25% each: Population, Arterial and Collector lane mileage, Arterial and Collector shortfall, and preventive maintenance performance. DPW must prioritize preventive maintenance in order to receive is full share of funds available to the region.

1) Amounts programmed in the Transportation Authority 2009 Draft Strategic Plan.

2) FY 10-11 estimate based on data from CSAC projections, December 2009. FY 11-12 through 19-20 based on figures provided in the Metropolitan Transportation Commission's 2035 Regional Transportation Plan, updated April 2009.

3) Estimates generated by the California State Association of Counties (CSAC) SF shares of the Prop 1B Local Streets and Roads (LSR) bond category. San Francisco has claimed all available City shares of Prop 1B funds totaling \$25 million. In FY 2009-10 the State appropriated the remaining shares available to Counties or \$442 million. San Francisco will claim 1/3 of this amount in FY 2009/10 (\$2.2 million) and will claim the balance in FY 10/11 (\$4.4 million). After FY 10/11, San Francisco will have received all shares of Prop 1B bond funds totaling \$40 million.

## APPENDIX D: PROJECTED ANNUAL COSTS

Current Dollars		
Year	Investment for PCI 64 <sup>34</sup>	Investment for PCI 70 <sup>35</sup>
2020	\$ 50,000,000	\$ 50,000,000
2021	\$ 50,000,000	\$ 48,000,000
2022	\$ 50,000,000	\$ 46,000,000
2023	\$ 50,000,000	\$ 44,000,000
2024	\$ 50,000,000	\$ 43,000,000
2025	\$ 50,000,000	\$ 43,000,000
2026	\$ 50,000,000	\$ 43,000,000
2027	\$ 42,000,000	\$ 42,000,000
2028	\$ 34,000,000	\$ 42,000,000
2029	\$ 32,000,000	\$ 42,000,000
2030	\$ 32,000,000	\$ 36,000,000
2031	\$ 32,000,000	\$ 36,000,000
2032	\$ 32,000,000	\$ 32,000,000
2033	\$ 32,000,000	\$ 32,000,000
2034	\$ 32,000,000	\$ 32,000,000
<b>TOTAL</b>	<b>\$ 618,000,000</b>	<b>\$ 611,000,000</b>
<b>AVERAGE</b>	<b>\$ 41,200,000</b>	<b>\$ 40,733,333</b>

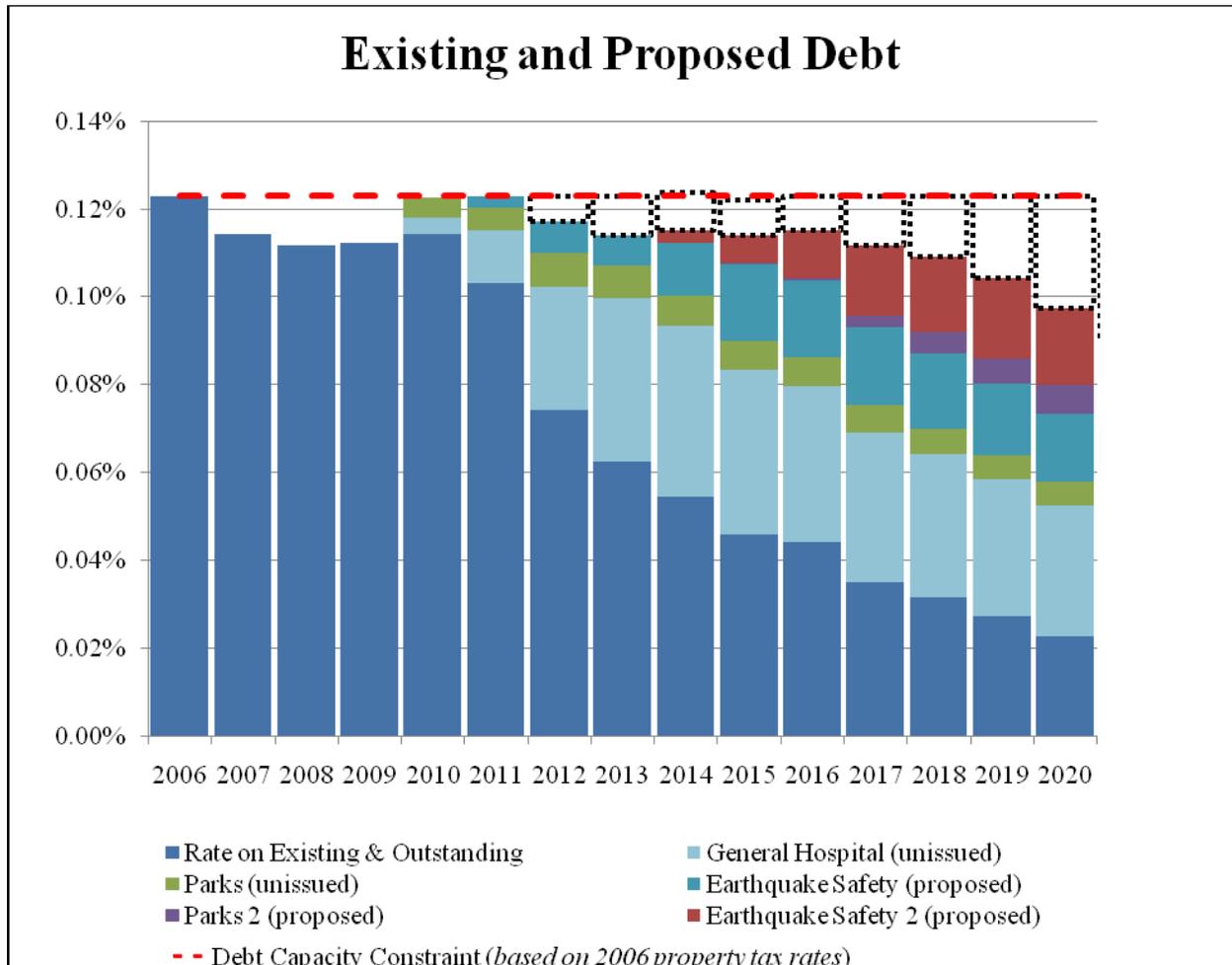
Future Dollars (5% inflation)		
Year	Investment for PCI 64	Investment for PCI 70
2020	\$ 77,566,411	\$ 77,566,411
2021	\$ 81,444,731	\$ 78,186,942
2022	\$ 85,516,968	\$ 78,675,610
2023	\$ 89,792,816	\$ 79,017,678
2024	\$ 94,282,457	\$ 81,082,913
2025	\$ 98,996,580	\$ 85,137,059
2026	\$ 103,946,409	\$ 89,393,912
2027	\$ 91,680,733	\$ 91,680,733
2028	\$ 77,928,623	\$ 96,264,769
2029	\$ 77,011,815	\$ 101,078,008
2030	\$ 80,862,406	\$ 90,970,207
2031	\$ 84,905,527	\$ 95,518,717
2032	\$ 89,150,803	\$ 89,150,803
2033	\$ 93,608,343	\$ 93,608,343
2034	\$ 98,288,760	\$ 98,288,760
<b>TOTAL</b>	<b>\$ 1,324,983,382</b>	<b>\$ 1,325,620,866</b>

<sup>34</sup> Assumes an investment of \$621 million is made between FY'11- 20 to raise the PCI score to 64

<sup>35</sup> Assumes an investment of \$751 million is made between FY'11- 20 to bring the PCI score to 70

AVERAGE	\$ 88,332,225	\$ 88,374,724
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## APPENDIX E: 10 YEAR DEBT CAPACITY



## APPENDIX F: CHARGING FOR STREET USAGE

Each vehicle that utilizes the street network contributes to the need for and cost of maintaining the roadways. However, determining the extent of damage caused by each vehicle is complicated.

Without having accessible methods to measure exact road utilization, policy makers have been forced to allocate costs in various ways. Most local jurisdictions across the country fund street resurfacing and other street repair services through state and federal funding sources, as well as revenue from their general funds (which typically are funded through local property taxes). Thus, they do not factor in individual road usage or cost responsibility beyond the extent that there is a nexus between the funding source and the service it is supporting (e.g. the people, who are paying for gas, are driving; the act of driving promotes pavement deterioration; and heavier vehicles usually consume more gas per mile). However, policy makers at both the Federal and State levels have used cost-occasioned studies to allocate highway cost responsibility among different vehicle classes.<sup>36</sup> The main objective of this approach is to ensure that each vehicle class pays user charges (in the form of tolls or fees) proportionate to its share of highway costs.<sup>37</sup>

If the City wanted to spread the costs of street resurfacing more equitably among street users, it could use trip generation - a technique used to determine the amount of trip-ends certain land uses generate - to link resurfacing costs to street usage.

Levying a charge based on trip generation could also help capture costs generated from nonresidential properties which tend to generate higher trip generation rates in the form of commerce and employment and which tend to attract traffic from nonresidents who contribute the least in terms of road maintenance.<sup>38</sup>

If the City was able to charge property owners based on trip generation, it is not unreasonable to assume that some of the cost increase will be passed on to businesses which in turn will pass some of the cost onto non-residents in the form of higher prices or lower wages.<sup>39</sup> A pay-for-use charge, in theory, could be implemented as fee, special tax or an assessment based on trips generated.

To calculate a pay-for-use rate that would pass legal muster, the City must conduct a formal nexus study to determine the amount of automobile trips generated by each land use type.<sup>40</sup> The study should factor in property location when calculating trips generated. Parcels located in high

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<sup>36</sup> U.S Department of Transportation, 1997, 2000

<sup>37</sup> Allocation studies have typically focused on evaluating the equity of a fee structure by looking at costs covered by user charges for different vehicle classes. Some critics believe that efficiency, rather than equity, should be the priority and argue that user fees should reflect the actual cost of each vehicle's use of the network rather than the share of expenditures allocated to different vehicle classes.

<sup>38</sup> Carlson, 2007

<sup>39</sup> Carlson, 2007

<sup>40</sup> For residential properties, the number of dwelling units within a property or the number of bedrooms is commonly used as the variable to which the trip generation rate is applied. For non-residential properties, gross square footage, the number of employees or the size of the parking lot is used.

transit areas like downtown, will not generate the same amount of vehicle traffic as parcels located on the outskirts of the City.

Currently the SFCTA is conducting several trip generation nexus studies to explore similar fees that would be assessed to new development and vehicle registrations. The study being done for the Auto Trip Mitigation Fee (to be levied on new developments) could potentially be used to create a rate, as it is assessed based on the number of auto trip ends generated by development. Additionally, the City's Planning Department has developed a precise methodology for calculating trips generated by land use based on location. The City could use either methodology to determine the amount of vehicle trips generated - a powerful tool for fairly allocating the costs of repairing the streets.

Below is an overview of the methodology used to estimate the breakdown of average daily vehicle trip-ends attributable to different land uses across the city. **The results from this study are for informational purposes only.** Given the general complexities of determining an average standard trip generation rate for different land use types, coupled with data constraints (discussed below), these results should be used cautiously. If the City were to raise revenues through some type of charge based on trip generation, a formal nexus study would be necessary.

For the purposes of this report, vehicle trip-ends were used as a proxy to estimate the portion of street resurfacing that each property should be held accountable for. Counting trip-ends (the amount of vehicle trips that end at a property) helps alleviate problems related to allocating trips. For example, if a resident were to leave his house to go grocery shopping and return, his trip would be appropriately counted as two commercial trip-ends and two residential trip-ends.

However a disadvantage of using vehicle trip-ends as proxy is that does not factor in the type of vehicle being used. The portion of street degradation that each vehicle contributes to is a function of its physical characteristics such as weight and length, as well as its level of street usage. Trip generation only accounts for the frequency of street usage. Despite the fact that automobiles make up the majority of vehicles on the road, the Federal Highway Administration estimates that combination trucks are responsible for 58% of all costs associated with pavement maintenance. Automobiles come in second at 23% and single unit trucks last with 18%.<sup>41</sup> Although the breakdown of street degradation by vehicle type will most likely differ for San Francisco since the traffic composition of city roads vary from those of state and federal highways, this study helps illustrate the point that heavy vehicles such as busses, trolleys and trucks cause more pavement damage - an important concept in terms of creating a fair pricing structure. Using trip generation without accounting for vehicle type may result in an underestimation of the damage caused by the commercial and industrial classes.

The SFCTA created a simple estimate of vehicle trip rates, the number of auto trip-ends that new development of various types would create, based on generalized results from their very sophisticated SF-CHAMP travel demand model. These simplified vehicle trip rates are used here only to offer a preliminary estimation of potential fees. Unlike SF-CHAMP, the simplified vehicle trip rates do not take location into account and assume all land parcels with similar uses

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<sup>41</sup> Federal Highway Administration

generate the same amount of traffic. The rates include all vehicle trip ends together, including those from "pass-by trips" and are applicable for the average weekday. However, despite its limitations, the model is a good way to quickly gauge how various development types impact the streets. The below tables provide rough estimates as to what the City would need to charge property owners to cover the General Fund portion of the Street Resurfacing Program with a PCI goal of 70, assuming no exemptions or discounts.

Data from the Tax Assessor and the Bureau of Labor Statistics (BLS)<sup>42</sup> was used for all calculations. For residences, the amount of dwelling units for each land parcel was used to estimate the average trips generated. For non-residential establishments, the amount of employees working at each establishment was used. In accordance with privacy laws, BLS aggregates the number of employees by industry using the North American Industry Classification System (NAICS) code order. Because the NAICS codes do not perfectly match the categories the SFCTA used in its model, we ran the model various ways to account for the different possibilities and came up with a range.

Class	Parcel Count	Unit Count	Average SQF/Unit	Average SQF/Parcel	% Daily Trips Generated
Single Family	137,108	137,031	1,549	1,548	14% - 21%
Multi-Family	34,939	176,912	911	4,611	18% - 29%
Commercial	19,174	69,541	2,595	9,411	46%-60%
Industrial	2,413	2,394	10,812	10,727	4% - 6%

	Yearly Average \$millions	Av GF Contribution Needed	Av GF Per Capital Plan	% of total needed	Average Shortfall
Average Yearly Budget for PCI of 70 (over 10 years)	\$75.10	\$52.2	\$22.1	42%	\$(30.13)

Class	Annual Unit Charge for PCI 70	Charge/SQF (PCI 70)
Single Family	\$53 - \$87	\$0.034
Multi-Family	\$53 - \$87	\$0.058
Commercial	\$344 - \$450	\$0.174
Industrial	\$865 - \$1,308	\$0.121

<sup>42</sup> The Quarterly Census of Employment and Wages (QCEW) uses data from quarterly tax reports submitted to State Employment Security Agencies by employers subject to State unemployment insurance laws and from Federal agencies subject to the Unemployment Compensation for Federal Employees program. This includes 99.7% of all wage and salary civilian employment. These reports provide information on the number of people employed and the wages paid to the employees each quarter. The program obtains information on the location and industrial activity of each reported establishment, and assigns location and standard industrial classification codes accordingly. This establishment level information is aggregated, by industry code, to the county level, and to higher aggregate levels. (Bureau of Labor Statistics 2010)

## APPENDIX G: SAN FRANCISCO'S CURRENT SET ASIDES

Set Aside	Value	FY 2009-10 Budget (\$millions)	Supported Programs
Revenue Baselines	16.59% of Aggregate City Discretionary Revenues	\$350.92	MTA Library Preservation Children's Services Public Education
Property Tax	0.06% of Assessed Property Value	\$119.63	Library Preservation Park & Recreation Open Space
Parking Tax	80% of Parking Tax Revenue	\$51.30	Parking & Traffic Services
Business Tax	1% of Tax Revenue	\$0.9	Neighborhood Beautification
Hotel Tax	FY 1997-98 base amount; changes of $\leq 10\%$ from calculated annually based on prior year.	\$65.18	War Memorial Convention Facilities Convention & Visitors Bureau Low Income Housing Programs.
Expenditure Baselines	Values Vary	\$70.92	Public Education Enrichment City Services Auditor Homeless Services Office of Economic Analysis Symphony Orchestra
Staffing & Service Baseline Expenditures	Values Vary	\$458.21	Police Staffing Minimum Fire Staffing Minimum Treatment on Demand

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