



Safe Streets and Road Repair Bond



2009

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Executive Summary

Safe, accessible and well-maintained infrastructure is at the very core of services a city provides to its residents. Whether you walk, take public transit, bike, or drive; people rely on a safe, smooth, and accessible route to travel to and from work, to school or to their local shopping corridor, everyday. San Francisco's Ten-year Capital Plan addresses the need to invest in our infrastructure and proposes a General Obligation Bond that will improve the overall quality of life for all residents of San Francisco. More than half of the street segments that make up the City's infrastructure are beyond their intended life span and continue to deteriorate. The Capital Planning Committee recommends the Mayor and Board of Supervisors place a \$368 million Safe Streets and Road Repair General Obligation Bond on the November 2009 ballot. The proposed 2009 Safe Streets and Road Repair Bond will:

- Resurface deteriorated City streets
- Reduce potholes, which can cost Bay Area motorists \$760 annually in car repairs¹ and are dangerous for cyclists,
- Repair sidewalks that present barriers for people with disabilities and can be hazardous for other pedestrians ,
- Install or reconstruct curb ramps to provide better access to sidewalks as mandated by the Americans with Disabilities Act (ADA) ,
- Repair the City's street structures including bridges, stairways, retaining walls, underpasses, overpasses, guardrails, and tunnels ,
- Improve and modernize streets by installing pedestrian and bike safety, traffic calming, and greening features and promote a more livable environment ; and
- Create approximately 2,650 jobs in San Francisco



The bond addresses the need for critical repairs and improvements. As the City retires existing debt from prior general obligation bonds, that debt capacity becomes available to fund these critical projects.

¹ Keep Both Hands on the Wheel: Metro Areas with the Roughest Rides and Strategies to Make our Roads Smoother. TRIP. 2008

The 2009 Safe Streets and Road Repair Bond proposal features:

- **\$209 million for Street Resurfacing and Reconstruction.** The funds will be allocated toward the repair and reconstruction of approximately 2,500 street segments. Streets are selected based on criteria that include street condition score, type of street and usage frequency, coordination and clearance with utility companies and other City agencies, geographic location, and complaints.
- **\$24.9 million for Street Structure Repairs and Improvements.** There are 340 street structures that include bridges, guardrails, tunnels, viaducts, retaining walls, and stairways that require repairs and improvements. This bond will rehabilitate some of these street structures and ensure that they are safe to use.
- **\$30.6 million for Curb Ramp Improvements.** San Francisco is obligated to provide safe and accessible paths of travel for pedestrians; specifically those with disabilities. This bond ensures the City continues to implement the *American with Disabilities Act Transition Plan for Curb Ramps and Sidewalks* to meet its legal obligation. Approximately, 4,200 curb ramps will be constructed.
- **\$10.1 million for Sidewalk Repair and Improvements.** Buckling sidewalks pose safety hazards for pedestrians. This bond will repair and improve approximately 400,000 square feet of sidewalk maintained by the City and allow a safe and pleasant experience for pedestrians.
- **\$93 million for Streetscape Improvements.** This bond will allow the City to redesign and modernize street corridors throughout San Francisco neighborhoods. Safety enhancements include traffic calming elements, such as landscaping, tree plantings, pedestrian lighting, sidewalk expansions and bulb-outs, and bicycle enhancements.
- **\$0.4 million for financial audits** by the Citizens' General Obligation Bond Oversight Committee per Administrative Code Section 5.30 to 5.36.

The 2009 Safe Streets and Road Repair Bond has strict accountability measures, including:

- Bond complies with the Ten-year Capital Plan policy to maintain property tax rates
- Prioritizing of projects based on objective and transparent selection criteria
- A dedicated web page that will list project schedules, scope and budgets
- Public Hearings before the Capital Planning Committee and the Citizens' General Obligation Bond Oversight Committee (CGOBOC). The CGOBOC can stop future bond sales if the funds are not spent in accordance with the express will of the voters.
- Annual reports submitted to the Mayor and Board of Supervisors by CGOBOC.

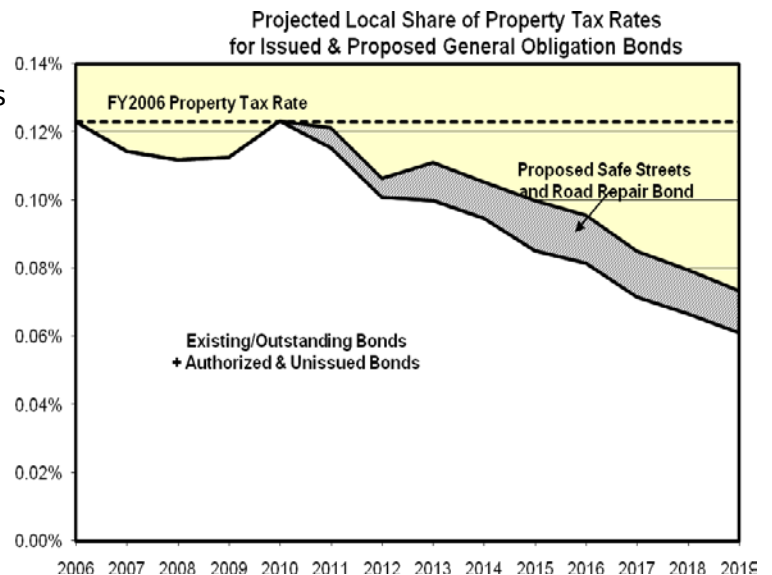
The City's street network is critical for day to day mobility and quality of life for residents and visitors whether they are drivers, transit riders, cyclists, or pedestrians. The Safe Streets and Road Repair bond is a sound investment that will provide economic and environmental benefits today and in the long-run. However, City administrators and policymakers also realize that this funding solution is only temporary. Under this bond proposal, the Director of Public Works, in conjunction with the Mayor and the City's Controller, will prepare and submit a report to the Board of Supervisors by September 2012, outlining recommendations for a long-term sustainable source to finance capital improvement needs.



City & County of San Francisco Ten-Year Capital Plan (FY 2010-2019)

The City & County of San Francisco's Capital Plan is a ten-year constrained expenditure plan for city-owned facilities and infrastructure. The document is developed annually and enables policymakers to make strategic decisions about how to fund maintenance, expansion and replacement of capital assets. First adopted by the Mayor and Board of Supervisors in 2005, the Ten-year Capital Plan prioritizes basic, critical capital projects that impact the public's safety and well being; places strong emphasis on accountability and transparency; and most importantly demonstrates the highest levels of fiscal restraint and responsibility.

The Capital Plan recommends the 2009 Safe Streets and Road Repair Bond as part of a citywide strategy to address critical capital improvement needs. As shown in the chart to the right, the grey area represents old bonds that are retiring; allowing the City to issue the Safe Streets and Roads Repair Bond so that property tax rates are below the 2006 level.



Proposed \$368 Million Bond Program Summary

The proposed \$368 million bond allocates funds to address the needs of streets and right-of-way capital programs over the next five years. Program descriptions including estimated costs and anticipated funding are detailed in the following sections.

GO Bond Proposed Budget*	
Program	Cost (millions)
Street Resurfacing and Reconstruction	\$209.0
Street Structure Repair and Replacement	\$24.9
Curb Ramp Improvements	\$30.6
Sidewalk Repair	\$10.1
Streetscape Improvements	\$93.0
Oversight and Accountability	\$0.4
Total	\$368
* Amounts include bond issuance costs detailed in the bond report	

Street Resurfacing and Reconstruction

A. Background

The City maintains approximately 850 miles of streets and roadways comprising of 12,517 street segments. A safe, sound and accessible infrastructure is vital to every urban city. The streets connect people to places and provide mobility for transit-riders, pedestrians, cyclists, and motorists. A smooth street has many important benefits including safety and improved quality of life. A repaved road also reduces damage and repair costs to cars, bicycles, and public transit. However, the true cost of bumpy roads is the impact they have on individuals that walk, bike, drive, or take public transit. Pedestrians are also affected when they walk across the street and encounter barriers that may cause trips and falls. Under this bond proposal, approximately 2,542 blocks will be repaired and reconstructed—improving the condition of the streets.

This complex roadway system includes surface transportation as well as a network of underground utility lines and pipes that include gas, electric, water, sewer, telephone, traffic signal, steam and others. This vast utilities system provides residents with drinking water, sewer services, heating, lighting, and telephone and cable television services. With much activity above and below ground, streets deteriorate and break down over time. Three major factors contribute to the deterioration:



1. Heavy wear and tear – In San Francisco, streets and roads have an average useful life of 14 to 21 years. However, a street’s useful life is shortened when there is increased car, truck and bus traffic. Typically, the asphalt on a heavily used street wears out seven years sooner than a street with less activity.
2. Excavation – There are many utility lines that lie beneath the roadway. Each time one of these utility lines or services needs repair or replacement, the utility companies must excavate the street by cutting a trench through the pavement which can cause a vulnerable spot in the street. Over time these excavations greatly impact the life span of the street.
3. Deferred work—Routine repair can prolong the life span of city streets. However, needs have outpaced available funding for street resurfacing and reconstruction, resulting in more rapid deterioration of City streets. Potholes are results of deteriorated and worn streets.

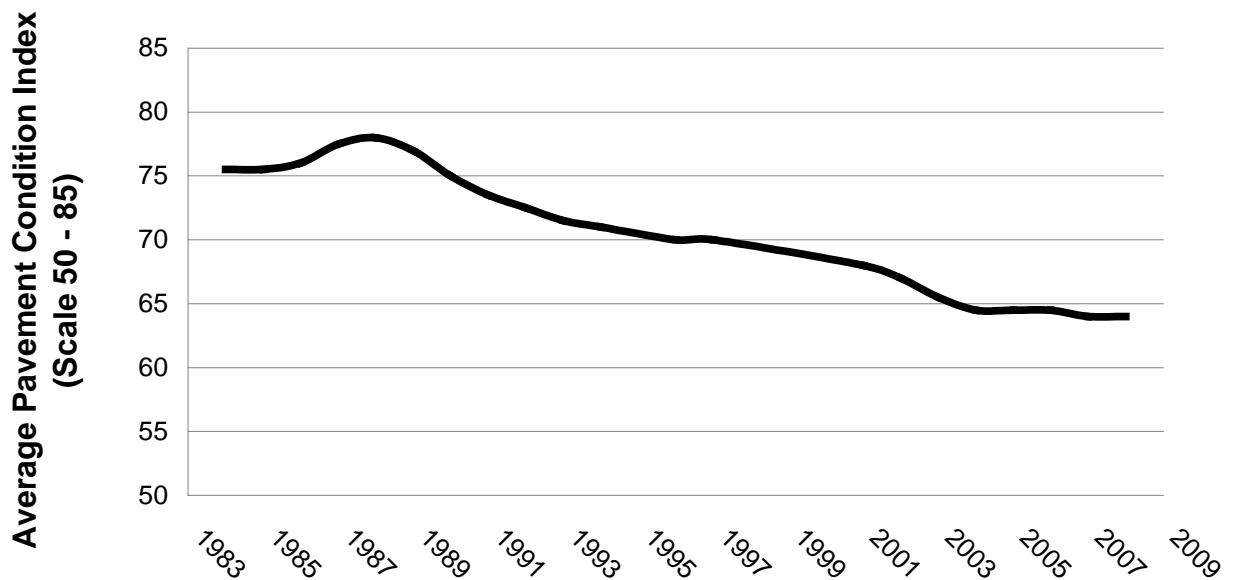


B. Program Description

The City uses a Pavement Management and Mapping System (PMMS) to track the condition of the streets. The PMMS track the impact of wear, erosion, and age by establishing a rating for each street segment. This rating helps determine which streets are nearing and or beyond the end of their useful lives. A street pavement includes several layers of engineering. For the street segments that are nearing the end, preventive treatments are performed to preserve the street and minimize further deterioration. For street segments that are beyond their life span, the top layer of asphalt is grinded and filled with a new layer. For asphalt streets with a deteriorated concrete base, both the concrete layer and the top layer of asphalt are reconstructed. Deteriorated concrete streets must be completely reconstructed. Because of funding shortfalls, San Francisco has not been able reconstruct streets in order to keep up with the deterioration pace. The result has caused the average street score to decrease over time. The chart below shows the decline in pavement condition during the past 25 years.



**Pavement Condition
1983 - 2008**



The PMMS rates the condition of streets based on three criteria: ride quality, cracking, and raveling of the roadway. These ratings result in a Pavement Condition Index (PCI) score for each street segment on a scale 0 to 100. A score of 0 reflects the worst condition and 100 reflects a recently paved street. The City uses the PCI scores to determine requirements for each street segment. (Refer to Map 1). The following PCI ranges are used to identify the types of treatment needed:

- 0 – 49 Repair/Reconstruction (Grind & Pave with Base Repairs)
- 50 – 63 Resurfacing (Grind & Pave only)
- 64 – 84 Treatment to extend life of street (e.g. Crack sealing, slurry sealing)
- 85 – 100 No Improvement Needed

Under the bond, the City will develop a yearly priority list of candidates and cross reference it



to the Five-year Excavation Plan. This plan is a schedule of anticipated street excavations coordinated through monthly meetings of the Committee of Utility Liaison Coordination of Projects (CULCOP) where City & private utility agencies meet to present projects, discuss conflicts, and coordinate joint opportunities. This synchronization improves the planning process, minimizes disruption to the neighborhood and public transit, and prevents newly paved roadway from excavation. Through this plan, the City imposes a five-year moratorium for excavation by utility companies and other agencies on newly resurfaced streets.



Once a street is cleared for all public and private utility work, the City can determine the type of treatment needed and program the street for paving. This bond proposes to resurface approximately 2,542 street segments. Street resurfacing improvements will be equitably distributed among the various neighborhoods and commercial districts throughout the City and it implement repairs along contiguous blocks in order to increase the cost efficiency of a repaving project.

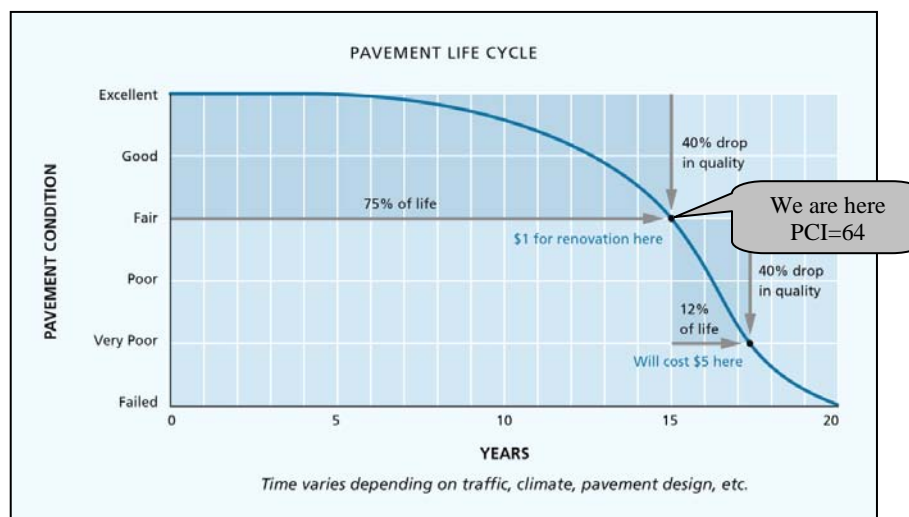
Roadway resurfacing work under this bond may include, but will not be limited to:

- Mill and fill asphalt surface over concrete base; perform repairs to the concrete base
- Reconstruct concrete streets
- Replace concrete parking strip
- Replace concrete bus pads
- Replace concrete curb edge
- Reconstruct concrete sidewalk
- Reconstruct concrete curb ramps with detectable surface tiles
- Other work includes treatment to extend life of streets, traffic routing work and adjusting City-owned manhole frames and covers, castings, and catch basin frames and gratings to grade related to paving and reconstruction projects

C. Criteria for project selection

The City's pavement management strategy aims to preserve streets by applying the right treatment to the right roadway at the right time. One of the basic premises of street resurfacing is: the lower the PCI score, the more it costs to treat the pavement. Therefore, to be cost-effective, paving should ideally be done before streets deteriorate beyond a particular condition score. For example, a street with a condition score of 50 could require a resurfacing treatment at a cost of approximately \$95,000 per block. However, once the pavement condition score falls below 50, the cost of paving increases exponentially. A street with a condition score below 25 could require a reconstruction at a cost of \$430,000 per block.

The figure below shows how pavement conditions change over time when resurfacing is deferred. While new pavements generally remain in good-to-excellent condition for several years with little or no upkeep, the rate of deterioration increases rapidly after 7-20 years. At approximately 20 years, the pavement wearing surface must be replaced at higher costs. By reducing the frequency of asset replacement, research shows that preventative treatments can reduce the life-cycle cost in infrastructure by 75-90 percent.



Regionally, the Metropolitan Transportation Commission (MTC) is encouraging the use of preservation strategies such as slurry sealing and crack sealing to extend the life of streets. MTC developed a new policy to allocate funding based on each jurisdiction's performance to extend the span of street. Therefore, San Francisco must include and prioritize these treatments in order to maximize allocations of state and federal funds available to the region.

The street resurfacing and reconstruction program is prioritized using the following criteria:

- **Transit and Bicycle Routes**
The requirement groupings are divided to identify MUNI routes, bicycle routes, MUNI and bicycle routes, or a non-MUNI/bicycle route. Heavy volume of transit vehicles and bicycle traffic gives a street higher priority for resurfacing. The City will work with other agencies and community organizations to determine the prioritization of streets on the bicycle route network.
- **PCI Score**
The PMMS generates a list of accepted² streets with PCI scores of 84 and below. The PCI is used to identify and categorize the streets based on the type of improvement requirements that will be needed on the streets. The streets on the list are categorized as either requiring preventative treatment (PCI 64 - 84), or requiring pavement renovation—resurfacing or reconstruction (PCI 63 and below). (Refer to Map 1).
- **Functional Classification**
The candidate list of streets for both preventative treatment and pavement renovation are sorted by type of street use (bicycle, transit, car) or functional classification. This system groups streets into 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. These categories are further divided into two treatment types, resurfacing (PCI 50 - 63) or repair/reconstruction (PCI 0 - 49). The City will work with other agencies and community organizations to determine objective prioritization of streets along the bicycle network .
- **Project Readiness/ Coordination with Utility Companies and City Agencies**
Priorities are set primarily on utility clearance and project coordination with utility companies such as PG&E, AT&T, and Comcast, and City agencies such as SF Public Utilities Commission (SFPUC), and the Municipal Transportation Agency (MTA).
- **Equitable Distribution Across the City**
Geographic equity is applied to ensure street repaving is distributed to all parts of the City. Based on the estimated number of street segments to be paved, each of the City's neighborhoods and commercial districts receives an equitable distribution of work over a five year rolling duration. The distribution is based on the functional class inventory and PCI score as it relates to the overall city network.

² Streets that are formally "accepted" through ordinance of the Board of Supervisors.

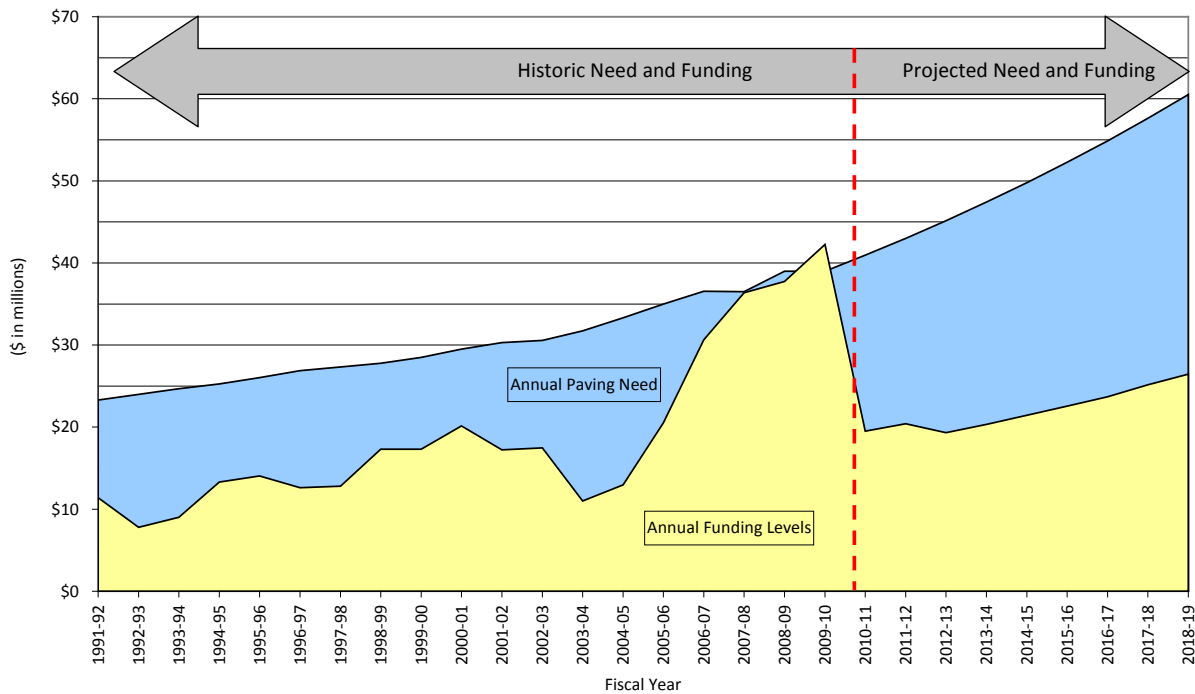
- **Complaints**
When the City receives complaints from the public regarding paving issues, engineers follow a protocol to investigate, evaluate and make recommendations. If the street is found to be in need of repaving and meets requirements for a paving candidate, priority for resurfacing is given. The street is verified against the Utility and Municipal Excavators' Five Year Plan for conflicts and/or joint opportunities. If there are no utility conflicts, the street is programmed for the earliest available paving date.

D. Estimated costs and funding

Annual Need and Deferred Backlog

There are two important aspects of the Street Resurfacing Program with respect to financial need: the annual need and the backlog. The estimated annual need is the City's cost to maintain current conditions. At present, the City's average PCI score is 64. To maintain pavement condition at this level over the next ten years requires an annual investment of \$39 million. This annual need is expected to increase approximately 5 percent per year in the future. The table below shows the historic and projected need and funding for street resurfacing. Based on the anticipated funding levels shown in the chart, the average pavement condition score could fall to 55 at the end of 10 years. This funding level is based on projected funding without the proposed bond or General Fund appropriations.

Annual Funding and Paving Need



To increase the average PCI score to 70 after ten years, the City would need to appropriate \$56 million annually (increasing with inflation) and repave streets on a cycle of 14 to 21 years

depending on the type and use of the street. Over the last five years, street resurfacing received an average of \$23 million annually, which is \$33 million less than the amount that is needed to increase the PCI score to 70. This shortfall has produced a lag time in street paving. The approximate average age of streets in need of rehabilitation ranges between 22 and 30 years. This longer paving cycle causes pavement to further deteriorate which increases the cost of repair. If adequate funding is not available, these repairs are deferred.

The second aspect of financial need for street resurfacing is the deferred backlog. The backlog consists of the paving need that has been generated from deferring road work in the past. The PMMS currently estimates 6,314 segments of City-maintained streets are in need of rehabilitation, which would cost approximately \$439 million. If the City does not pave these streets within the optimal period, the streets that normally only require “mill and fill” (grinding off and replacement of pavement) may need to be reconstructed at five times the cost.

Inadequate funding has a dramatic effect on the backlog and the future costs for repair. The current Ten-year Capital Plan estimates the current backlog to be at \$439 million.

Current Funding

San Francisco faces a myriad of challenges and uncertainty when it comes to receiving funds to repave its streets. Beginning in FY 2010-11, the City is projecting a decline in anticipated funding from federal, state and local sources. Without a general obligation bond, there will be average annual shortfall of \$25 million over the next five years, which would adversely impact pavement conditions.

Federal

The current transportation appropriations bill, SAFETEA, expires on September 30, 2009. The bill provided \$286.4 billion nationwide for highway, transit and highway safety investments from 2004-2009. Over the period of SAFETEA, San Francisco received approximately \$13.5 million for street resurfacing projects. The City anticipates receiving approximately \$2 million annually in federal funds over the next 10 years. In FY 2008-09, San Francisco anticipates approximately \$11.35 million in one-time funding from the 2009 American Recovery and Reinvestment Act. These funds will be used to plug shortfalls in FY 2008-09 and 2009-10.

State

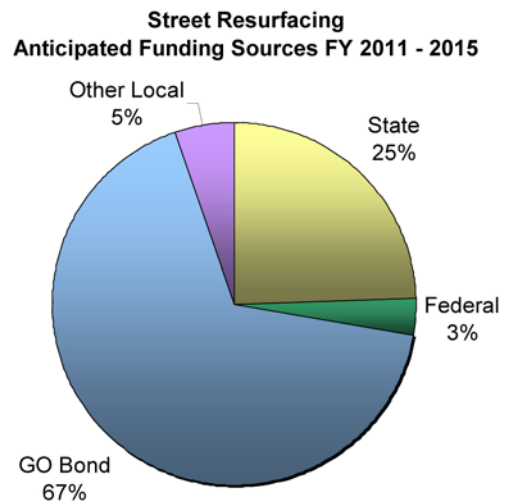
Approved by California voters in 2002, Proposition 42 dedicates revenues from the state sales tax on fuel. For five years, San Francisco received almost no funding from Proposition 42 because the State borrowed against these funds to close General Fund deficits. Proposition 1A, approved by voters in 2006, provided additional protections to Proposition 42 and also limited the State’s ability to divert these funds toward other purposes. FY 2008-09 was the first year Proposition 42 was fully funded and the City estimates future annual receipts of approximately \$12 million. However, the source is still subject to periodic suspension by the Governor and Legislature and contingent upon consumption trends and fluctuating gas prices.

Proposition 1B, the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006, was passed by the voters of California in November of 2006. The act authorized the sale of \$20 billion in bond debt to finance transportation projects within the State. Specifically, the bond money is available for expenditure by various state agencies and for grants to local agencies and transit operators upon appropriation by the Legislature. In total, the bond allocates \$2 billion that will repair and rehabilitate local streets and roads, reduce local traffic congestion, improve traffic flow, or increase traffic safety. Initially, Proposition 1B funds were to be allocated over a period of 10 years. Instead, the State accelerated the distribution of funds, allocating more than \$1 billion over two years. Of the \$40 million anticipated to come to San Francisco, \$33 million was appropriated in FY 2007-08 and FY 2008-09 with approximately \$6.5 million remaining.

Local

The Proposition K Expenditure Plan includes \$135 million for street resurfacing over a 30-year period or \$4.5 million annually. However, in the transition from Proposition B—which allocated an average of \$15 million annually—to Proposition K, the Transportation Authority adopted a spending plan that accelerated allocations of Prop K from FY 2005-06 through FY 2007-08. In FY 2008-09 the funding dropped to approximately \$3 million annually and is expected to phase out by 2024, ten years before the end of the sales tax.

Over the next five years, the Capital Plan projects a total of \$238 million is needed to maintain the current average PCI score of 64. An additional \$439 million would be needed to reduce the backlog. The proposed bond allocation of \$209 million (includes \$4 million in bond issuance costs) combined with projected sources of \$102 million will repair over 2,542 street segments and improve the condition of the City’s streets by raising the current PCI score from 64 to 67, after five years.



Street Structure Repair and Replacement

A. Background

The City has approximately 340 street structures including stairways, retaining walls, guardrails, pedestrian overpasses and underpasses, tunnels, bridges, and viaducts. This network of structures is critical to providing pedestrian access to the City's larger street and road system.



In order to assure safe use of these structures, timely repairs are required to prevent further deterioration and any threat to public safety. Although the City has performed seismic retrofits of bridges, pedestrian overpasses and viaducts in recent years, many other street structures still need replacement and significant repairs.

B. Program Description

The City, under the jurisdiction of DPW, has an on-going program to identify repairs needed on the 304 City street structures maintained by DPW (Refer to Map 2). Out of the 304 City-maintained structures, approximately 100 have been indentified for repair or replacement. These street structures are used by the public every day. Consequently, failure to correct these deficiencies increases the risk to public safety and exposure to liability.

Funding from the bond may fund be used to repair, replace or maintain the following:

- spalled concrete
- tilted retaining walls and failed construction joints,
- settled stairways and uneven steps or landings
- metal railings or exposed re-bar,
- broken fences and railings
- damaged lighting
- old mechanical and electrical equipment on bridges and tunnels
- other deficiencies on bridges and overpasses



Failure to correct these conditions will increase the City' exposure to liability and result in additional costs when corrective actions are no longer discretionary, but immediately required.

The proposed bond funds allocated to street structures may also provide a match to supplement alternative financing strategies, such as federal or state grants and private gifts, which often require

matching local funds.

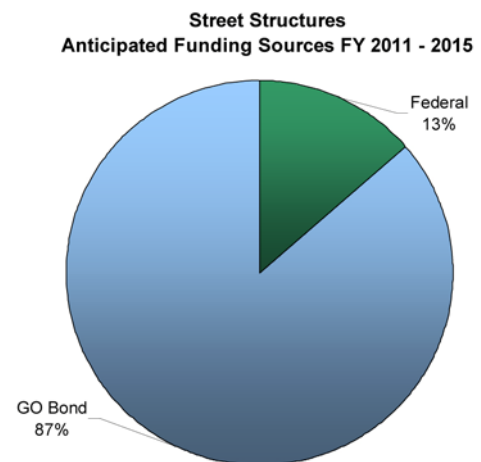
C. Criteria for project selection

The City developed a methodology and set of criteria to prioritize structural repairs and will utilize this scoring to set strategic priorities across various structure types. The Street Structure Repair and Replacement Program will select projects based on results from routine inspections. Inspected street structures will be scored on a scale from 0 to 100, a 0 representing the worst condition and a 100 representing a structure in perfect condition. Scores will be based on the following criteria:

1. Life and Safety: Does the structure pose any imminent life and safety hazard?
2. Trip & Slip Hazard: Does the structure present a tripping hazard, have a slippery surface, or have corrosion or exposed steel that could present a danger to pedestrians?
3. Code Violations: Does the structure have missing or damaged hand rails or fencing, inoperable lights, and/or exposed electrical panels/fixtures?
4. Slope Instability Potential: Are there signs of distress, movement, settlement or undermining of the foundation.
5. Level of deterioration: Is the structure at a critical point for repair?
6. Usage frequency: How often is the structure used?
7. Consideration of alternative ingress/egress routes: Is this the only means of access?

D. Estimated Cost and Funding

The cost to repair street structures over the next five years is \$88 million plus a backlog of \$28 million. The only projected source of funding for street structure repair is \$4 million in federal grant funds secured for a select number of the City's bridges. The remaining unfunded need is therefore \$112 million. The proposed allocation of proceeds from this bond proposal is \$24.9 million including \$0.5 million in bond issuance costs. These funds will allow DPW to address needed repairs as well as leverage these dollars against federal or state sources when they become available.



Curb Ramp Improvements

A. Background

San Francisco is committed to full and fair access for people with disabilities. The law requires that the City provide curb ramps to make the public right-of-way accessible. Regardless of this legal requirement, our City wants and needs to make this investment in order to protect the safety of people with disabilities and to create a pedestrian environment that is welcoming to everyone. Under the bond proposal, approximately 4,246 curb ramps will be designed and constructed at 2,307 street corners.



Legal Requirements

The Rehabilitation Act of 1973, Section 504, was the first law to require that curb ramps be included in any public right-of-way project receiving Federal funds. The Americans with Disabilities Act of 1990, (ADA) recognizing the crucial importance of the public path of travel, specifically requires the construction of curb ramps in the public rights-of-way. At 28 CFR 35.150 the ADA implementing regulations require that:

“If a public entity has responsibility or authority over streets, roads, or walkways, its transition plan shall include a schedule for providing curb ramps or other sloped areas where pedestrian walks cross curbs, giving priority to walkways serving entities covered by the Act, including State and local government offices and facilities, transportation, places of public accommodation, and employers, followed by walkways serving other areas.”

San Francisco, along with all local jurisdictions, is required under the ADA to develop a plan for accessibility of its public rights-of-way. The ADA requires cities to survey their public rights-of-way, develop a plan for completion of required curb ramps, identify funding and develop a construction schedule.



Steiner & Grove before



Steiner & Grove after

San Francisco has created such a plan, the “ADA Transition Plan for Curb Ramps and Sidewalks.” The plan is an aggressive, but realistic approach to ensure access to the City’s sidewalks. While eventually, every corner in the City will have a curb ramp, the Plan creates a detailed priority scheme so that resources will first go to the areas where curb ramps are needed most. The ADA Transition Plan incorporates feedback from residents with disabilities to prioritize curb ramp repair and reconstruction around transit stops, local stores, work locations, and schools.

B. Program Description



Curb ramps are an essential link in the public path of travel. For people with disabilities, many seniors, parents with strollers, and others, curb ramps provide safe navigation over public street intersections and sidewalks. Curb ramps are also key to the full social integration of people with mobility disabilities and people who are blind or with low-vision. Accessible walkways allow people with disabilities to participate in society, independently go to work, shop, attend school and see friends. For people with disabilities, being able to move around

the City independently reduces their isolation and dependence on expensive services such as Paratransit.

San Francisco has been building curb ramps for years; however many of the 25,914 corners still lack curb ramps. Of these, some are old, too steep, or too narrow and others are in disrepair. The inventory indicates that we need to build 29,530 ramps at approximately 16,067 corners at various locations throughout the City. (Refer to Map 3)

Design and construction of approximately 4,246 curb ramps will be completed at various locations throughout the City. Work may include, but will not be limited to:

- Design engineering of curb ramps
- Construction of curb ramps
- Related work needed to bring the curb ramp to current standards, which may include reconstruction of concrete gutters, curbs and parking strips; relocation or adjustment of utility poles, utility pull boxes, castings, relocation or construction of sewer catch basins and reconstruction of adjacent sidewalks.

C. Criteria for project selection

The City prioritizes the curb ramp locations according to guidelines established under the Americans with Disabilities Act. The top priorities are locations that residents with disabilities have identified as curb ramps they need in order to safely get to transit stops, civic buildings, or work areas. Once these locations have been addressed, the City will install curb ramps in areas serving civic buildings, transportation routes, and commercial areas. (Within those categories, there are also priorities according to whether a corner has no ramp, an old, non-functioning

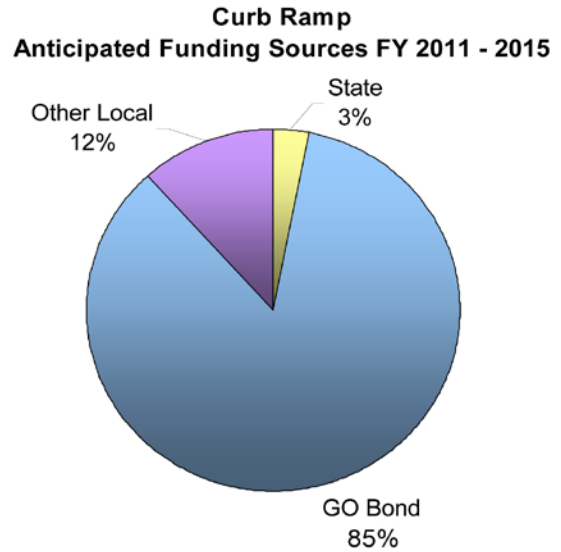
curb ramp, or a single curb ramp.)

The DPW ADA/Disability Access Coordinator and the Mayor's Office on Disability will review and prioritize new curb ramp requests consistent with these priorities and with the City's ADA Transition Plan for Curb Ramps and Sidewalks.

D. Estimated Costs and Funding

The City estimates that the total cost to improve 29,530 curb ramps is \$209 million. Some of the ramps —approximately 12,470— will be completed through other projects including: street resurfacing, streetscape improvements, traffic signal upgrades or by private developers. The City, under the jurisdiction of DPW, has a responsibility to design and construct approximately 17,060 curb ramps at a cost of \$121 million. Using a 20-year timeline to complete these repairs, approximately \$6 million is needed annually.

The proposed \$30.6 million (includes \$0.6 million in bond issuance costs) bond allocation would support design and construction of 4,246 curb ramps at approximately 2,307 corners. This construction is in addition to those being installed through various other programs.



Sidewalk Repair

A. Background

Just like the streets, sidewalks are important part of the City's infrastructure; providing paths of travel for people to get around and to and from their destinations, everyday. There are approximately 5,000 blocks within San Francisco that are integral to the pedestrian network. A broken or buckling sidewalk can be hazardous to public safety and can cause barriers for people with disabilities and pedestrians. In San Francisco, both property owners and the City are responsible for repairing the sidewalk fronting their properties. Based on inspections and complaints, there is significant amount of broken and buckled sidewalks around City owned properties and maintained street trees. Under this bond proposal, funding will be allocated toward the following sidewalk repair programs in addition to repairing a total of 416,000 square feet of damaged sidewalk around public lands and street trees.

- Sidewalk Improvement and Repair Program
- Sidewalk Replacement around City maintained street trees
- Property Sidewalk Replacement (DPW Responsibility)

B. Program Description

Sidewalk Improvement and Repair Program (SIRP)

Consistent with San Francisco's ADA Transition Plan for Curb Ramps and Sidewalks, SIRP addresses sidewalk improvements on public and private property. The proposed bond will fund sidewalks that are the City's responsibility to repair.

Developed in 2007, the SIRP annually inspects and makes necessary repairs to approximately 200 square blocks of the City's most heavily traveled sidewalks. This ensures that the City's 5,000 plus street segments are inspected on a 25-year cycle, which is the recommended industry standard.

SIRP focuses on improving pedestrian safety and quality of life in the City's neighborhoods. The program is a proactive initiative to repair sidewalks and help property owners, private businesses, and City agencies comply with local and state mandates. SIRP relies upon several elements to ensure program efficiency and improved public outreach.

The City conducts a public outreach campaign prior to inspecting to inform property owners of their legal responsibilities. Property owners are educated about how sidewalks must be maintained. After the initial outreach, inspections are made and notices are sent to property owners who have damaged sidewalks. These property owners are provided an opportunity to discuss the amount of damage they are responsible to repair at a DPW Departmental Hearing. In addition, utility agencies and other public agencies receive a similar notice to make repairs.



Funding for private property or public agency sidewalk reconstruction comes from the responsible party either through direct payment or special property tax assessment bills.

The proposed bond will fund repairs to 150,000 square feet of damaged sidewalk that are the responsibility of the City, maintained under DPW.

Sidewalk Repair around City Street Trees

The City maintains approximately 35,000 street trees. The majority of these are planted in sidewalk areas. As the trees mature, the associated root growth often breaks, lifts, or buckles the surrounding sidewalk. The resulting damage becomes tripping hazards, which exposes the City to liability. DPW estimates that 1.8 million square feet of sidewalk repair is needed around City maintained street trees.

Public Property Sidewalk Replacement (DPW Responsibility)

Public Property sidewalk replacement consists of:

- City properties under the jurisdiction of the City and maintained by DPW (i.e. Housing Authority, School District);
- sidewalks fronting other public properties (i.e. undeveloped lands, stairways, tunnels, bridges and retaining walls);
- sidewalks fronting state and federal properties; and,
- special surface sidewalks such as Market Street bricks and Mission Street tiles

Under this bond proposal, a total of 266,000 square feet of damaged sidewalk around trees and at public lands will be repaired.

C. Criteria for project selection

SIRP prioritizes areas for repairs around State and local government offices and facilities, transportation routes, public accommodations, and walkways that serve as links to neighborhoods; in accordance with Title II of the ADA. Locally, this means ensuring that commercial districts, MUNI routes, schools, hospitals and senior centers, with the greatest number of community elements are inspected and repaired first. Approximately 200 blocks with the highest pedestrian usage will be selected for inspection and repairs per year for five years.

Repair locations around street trees will be selected based on work scheduled through an annual inspection of City maintained street trees. Annual inspections identify the condition of sidewalk, extent of damage and level of pedestrian use, as well as reported accidents and



Cracked and buckled sidewalk



Repaired sidewalk

complaints. The highest priorities are given to accidents, multiple complaints, and areas of high lift and extensive damage. (Refer to Map 4).

Sidewalks will be selected based upon adjacent use and anticipated pedestrian volumes. Sidewalks with commercial districts, MUNI routes and schools will be given priority status over streets that are strictly residential.

Sidewalks around City maintained street trees are repaired as identified by inspections. Repairs will be prioritized based on:

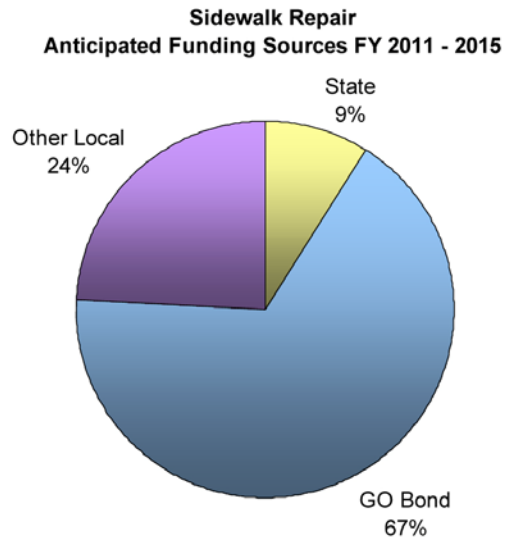
- Condition of the sidewalk
- Extent of damage
- Level of pedestrian use
- Accidents
- Complaints

D. Estimated cost and funding

The Capital Plan estimates that over the next five years, the cost to inspect and repair City responsibility sidewalks through SIRP will be \$8 million. The proposed bond will allocate \$6 million for capital costs.

For sidewalk repair around City street trees and other public lands, the bond appropriates \$4 million.

In total, the bond will allocate \$10.1 million for sidewalk repair work (including \$0.3 million for bond issuance costs) which would repair approximately 416,000 square feet of sidewalk over five years.



Streetscape Improvements

Streets make up approximately 25 percent of San Francisco’s land area, more space than is found in the city’s parks. While improvements to the driving surface are important to moving people safely and efficiently, so is the quality of the sidewalk area for pedestrians. As one of the



Example "complete street" provides street greening as well as dedicated lanes for bikes and vehicles

Bay Area’s oldest cities, San Francisco’s infrastructure has not been upgraded to accommodate increased street usage by pedestrians and bicyclists. San Francisco must modernize street design to completely incorporate the needs of pedestrians and bicyclists, and people with disabilities as well as car and transit traffic. Each neighborhood in San Francisco is unique; streetscape improvements include a range of safety and greening features customized for that particular environment—maximizing the use of public space.

Improved and enhanced streetscapes will provide a wide range of benefits, including:

- Decreasing the likelihood of pedestrian injuries and fatalities: Streets that are designed with the safety of pedestrians and cyclists in mind will decrease the likelihood of pedestrian, bike, and auto collisions.
- Increasing accessibility for all street users: Streets that have a clear, accessible path of travel and are free from barriers and obstructions will result in increased usability for all users, including people with disabilities, seniors, children, parents with strollers, and everyone in between.
- Supporting a transit-first city: Every transit trip begins and ends with a walking trip. Well-designed streets that are safe for pedestrians, have amenities that people need, and connect to important transit lines will encourage greater use of public transit.
- Promoting public safety: Streets that are active will enhance residents’ sense of safety and security from crime and violence.
- Minimizing the impact of global climate change and local air pollution: Streets that are designed to promote and encourage walking, cycling, and transit use will help to minimize San Francisco’s contribution to global climate change, and reduce local air pollution.

- Minimizing sewer/stormwater overflows into the Bay: Streets can be designed such that they detain a certain percentage of water during big storms. This helps reduce overflows of the City’s combined stormwater and sewer infrastructure into the bay, and also reduces local flooding problems.
- Supporting the City’s local shopping districts and small businesses: A street system that encourages people to walk to neighborhood commercial districts rather than drive to regional shopping centers for their daily needs helps to support the small commercial areas and small businesses that make up an important part of San Francisco’s character.
- Providing additional open space in areas that are lacking and connections to open space: As San Francisco grows and new neighborhoods emerge, there is increasing pressure on the City’s existing open spaces, and a need for open space in new neighborhoods. The city’s street system can complement and link to the larger open space network, creating safer, more inviting connections to open space to underserved neighborhoods.



Broadway and Montgomery before

- Retaining families in San Francisco: Streets that are safe from fast-moving traffic, are clean and well-maintained, and have spaces for neighbors to gather or children to play will help to retain families in San Francisco, much as affordable housing or good public schools will do the same.
- Supporting neighborliness, civic interaction, and identity: Cities depend on peaceful social interactions of colleagues, neighbors, and people in general who share a collective identity and pride as the residents of a place. Well-designed streets that include places to sit, stop, gather, and play create the spaces for this interaction to take place.
- Enhancing the everyday quality of life for San Francisco’s residents: Above all, a well-designed street system will enhance the livability—pleasant places to stroll or sit, opportunities for neighborly interaction, freedom from excessive



Broadway and Montgomery after

noise and pollution, and a green, attractive cityscape—for San Francisco’s residents.

E. Program Description

Over the last 10 years, the City has implemented several streetscape improvement projects on streets that include Broadway Street, Ocean Avenue, and Alemany Boulevard. Recognizing a need and regional prioritization of comprehensive public realm improvements, the Great Streets Program was created in 2005. Since its inception, the program has implemented six capital streetscape improvement projects throughout the City, including San Bruno Avenue Streetscape Improvements, Valencia Streetscape Improvements, Leland Avenue Streetscape Improvements and Polk Streetscape Improvements.



Mendell Plaza before



Mendell Plaza after

To build upon the important work of the Great Streets Program, the proposed bond will fund the next phase of streetscape improvement projects. Streetscape improvements can vary from simple plantings on street medians to the complete revitalization of the street, site furnishings, landscaping and infrastructure. As such, project costs can range between \$55,000 per block to \$2,000,000 per block. A streetscape improvement project may include one or several of the following elements:

- Sidewalk extension – Increase the usable sidewalk space for pedestrians and greening
- Bulb-out – shorten the street crossing distance and provide visibility for pedestrian safety
- Crosswalk treatment – Highlight pedestrian crossing areas for pedestrian safety
- Pedestrian countdown signals/lighting – Install pedestrian countdown signals and pedestrian upgrade lighting for energy efficiency and safety
- Street tree planting – Provide traffic calming and ecological benefits
- Roadway median expansion and/or planting – provide traffic calming and ecological benefits
- Road lighting– Improve and upgrade street lighting for safety and energy efficiency
- Bicycle improvements – Bicycle lanes, bicycle racks or other amenities to improve bicycle conditions
- Public art elements – Create a sense of place, interest, and neighborhood identity
- Site furnishings – Provide resting areas, bicycle racks, trash receptacles
- Stormwater elements (Low Impact Design) – Improve drainage and reduce flooding

F. Criteria for project selection

The Streetscape Improvement Program will select projects based upon a set of criteria informed by the Better Streets (Ord. 33-06 #051715) Complete Streets (Ord. 209-05, #050591) and Transit First (SF City Charter, Section 8A.115) policies. The criteria was developed by a multi-agency working group that includes: the Department of Public Works (DPW), Municipal Transportation Agency (MTA), San Francisco County Transportation Authority (SFCTA), Planning Department, SF Public Utilities Commission (SFPUC) and approved upon by the City's Capital Planning Committee.

Along with the criteria listed below, the selection of projects will be done in consultation with existing plans and program efforts the City. These include the Better Streets Plan, the Bicycle Plan³, Transit Effectiveness Project (TEP), MTA's Pedestrian and Bicycle Programs, the SFCTA's Neighborhood Transportation Plans, the Planning Department Neighborhood Plans, the PUC's Stormwater Design Guidelines and Wastewater Master Plan and Community Based Streetscape Improvement plans. The final project list will be brought before the Capital Planning Committee for review.

The streetscape improvements program will use the following prioritization methodology to identify potential improvement projects:

- Community Supported Plans & Programs
Programming of projects will start with existing publicly supported streetscape improvement plans.
- Commercial Corridors
Priority is given to neighborhood commercial corridors that have a large volume of pedestrian, bicycle, or transit traffic.
- Transit and Bicycle Routes
Presence of transit vehicles and bicycle traffic gives a street higher priority for streetscape improvements.
- Greenway Connections
Projects that make connections to open spaces, such as parks or plazas will be given priority. The connections may be via bicycle route, transit route or



Broadway before



Broadway after

³ Implementation of bicycle projects is contingent upon environmental clearance of the Bicycle Plan.

a heavily used pedestrian route.

- **Equitable Distribution Across the City**
Geographic equity will be applied to the final project list to ensure that streetscape improvements are equally distributed to all areas of the City.
- **Coordination with Utility Companies and City Agencies**
Priority is given to ready-to-go projects that partner with other funded projects, such as area infrastructure improvements, street resurfacing, curb ramps, or pedestrian safety projects. Priorities will be set primarily by utility clearances and coordination with utility companies through the 5- Year Excavation Plan.

G. Potential Areas for Improvement

From the City's ongoing planning efforts, the following are corridors that may be targeted for future improvement. Most of the projects are contained either in existing community supported priority development area plans (Rincon Hill, Market and Octavia, Balboa Park, Eastern Neighborhoods), the five year street resurfacing program plan or other potential project plans. Funds from the proposed bond may be used to make improvements that enhance the livability and safety of these streets.



21st Avenue today

- 2nd Street, as contained in the Transit Center District Plan
- 17th Street, as contained in the Mission Area Plan
- 23rd Street, as contained in the Mission Area Plan
- Alemany Boulevard
- Brannan Street, as contained in the East Soma Area Plan
- Broadway Street
- Cargo Way, as contained in the SF Neighborhood Park's Council Blue Greenway Plan
- Guerrero Street, as contained in the Mission Area Plan
- Hampshire Street, as contained in the Mission Area Plan
- Harrison Street, as contained in the Rincon Hill Area Plan and East Soma Area Plan



21st Avenue simulation of potential streetscape improvements

- Hayes Street, as contained in the Market and Octavia Plan
- Holloway Avenue, as contained in the Balboa Park Area Plan
- Noriega Street
- O’Shaughnessy Boulevard
- Point Lobos Avenue
- Potrero Street, as contained in the Showplace/Potrero Area Plan
- South Van Ness Avenue, as contained in the Mission Area Plan
- Webster Street, as contained in the Japantown Area Plan
- York Street, as contained in the Mission Area Plan
- Market Street

H. Estimated Costs and Funding

Past Funding

Since FY 2005-06, nine Great Streets projects have been funded through federal grants and local matching funds from the General Fund and Prop K. In FY 2005-06, DPW received \$7 million from the current transportation appropriations bill SAFETEA. Additional regional and local federal grants from the Transportation for Livable Communities (TLC) program provided \$13 million. Local matching funds from Prop K have provided \$.766 million while the General Fund has appropriated \$4.9 million. Funding from all sources totals almost \$26 million. Besides the funding from the proposed bond, DPW does not have any identified sources to fund future Streetscape improvement projects.



San Bruno Avenue Streetscape

Estimated Project Costs

Outside of large infrastructure or roadway projects, the streetscape improvement program in San Francisco is relatively new. The Capital Plan estimates that if the City implements full streetscape improvements along 10 blocks per year, at an average cost of \$1.9 million, the program cost would be \$19 million annually.

In total, the bond will allocate \$93 million in streetscape improvements including \$2 million for bond issuance costs.

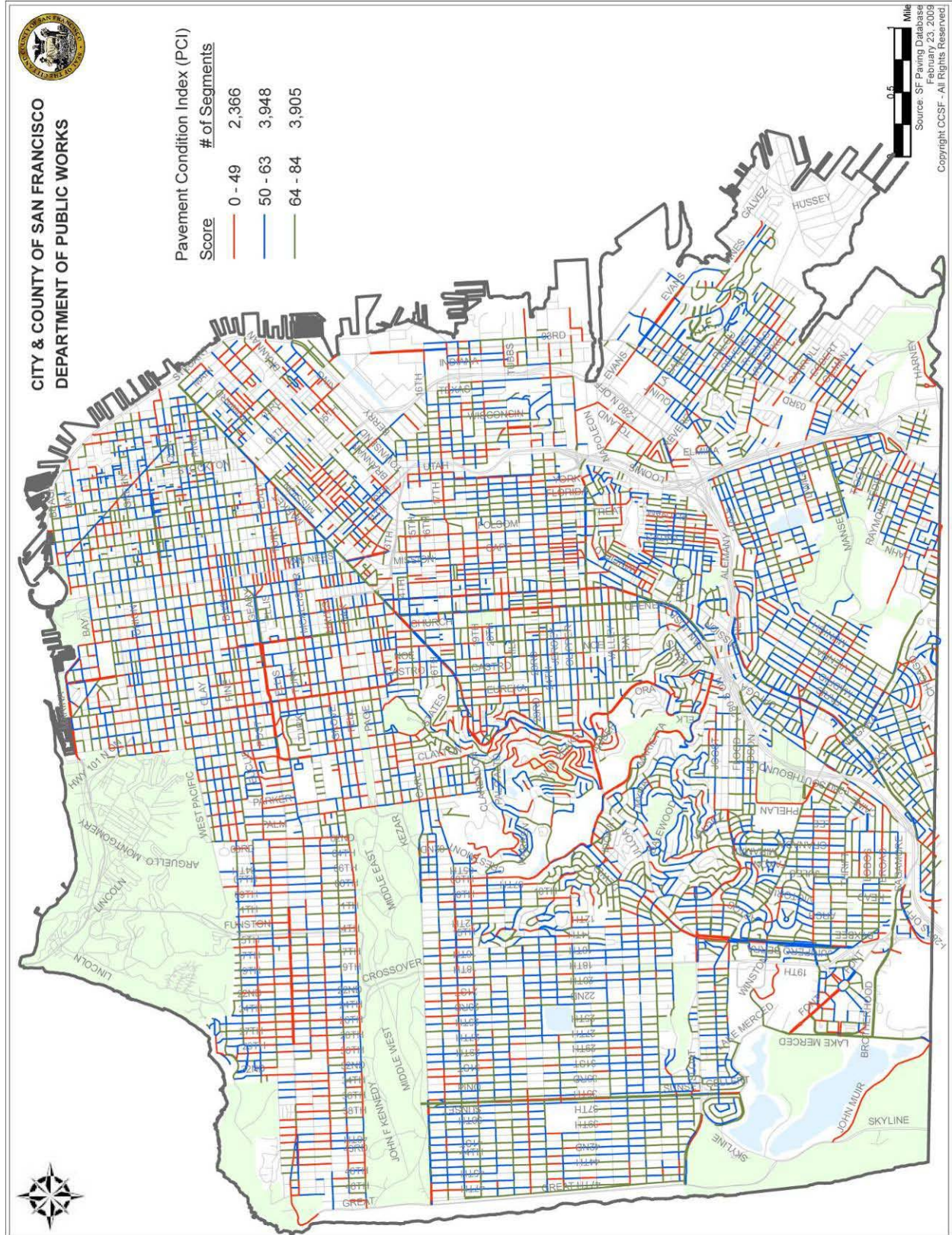
Accountability Measures

The Safe Streets and Road Repair bond will include strict standards of accountability, fiscal responsibility and transparency. The measures include detailed information for each project highlighting the name and other specifics associated with the work. In addition to California state bond requirements, the City will undergo a comprehensive public oversight and accountability process.

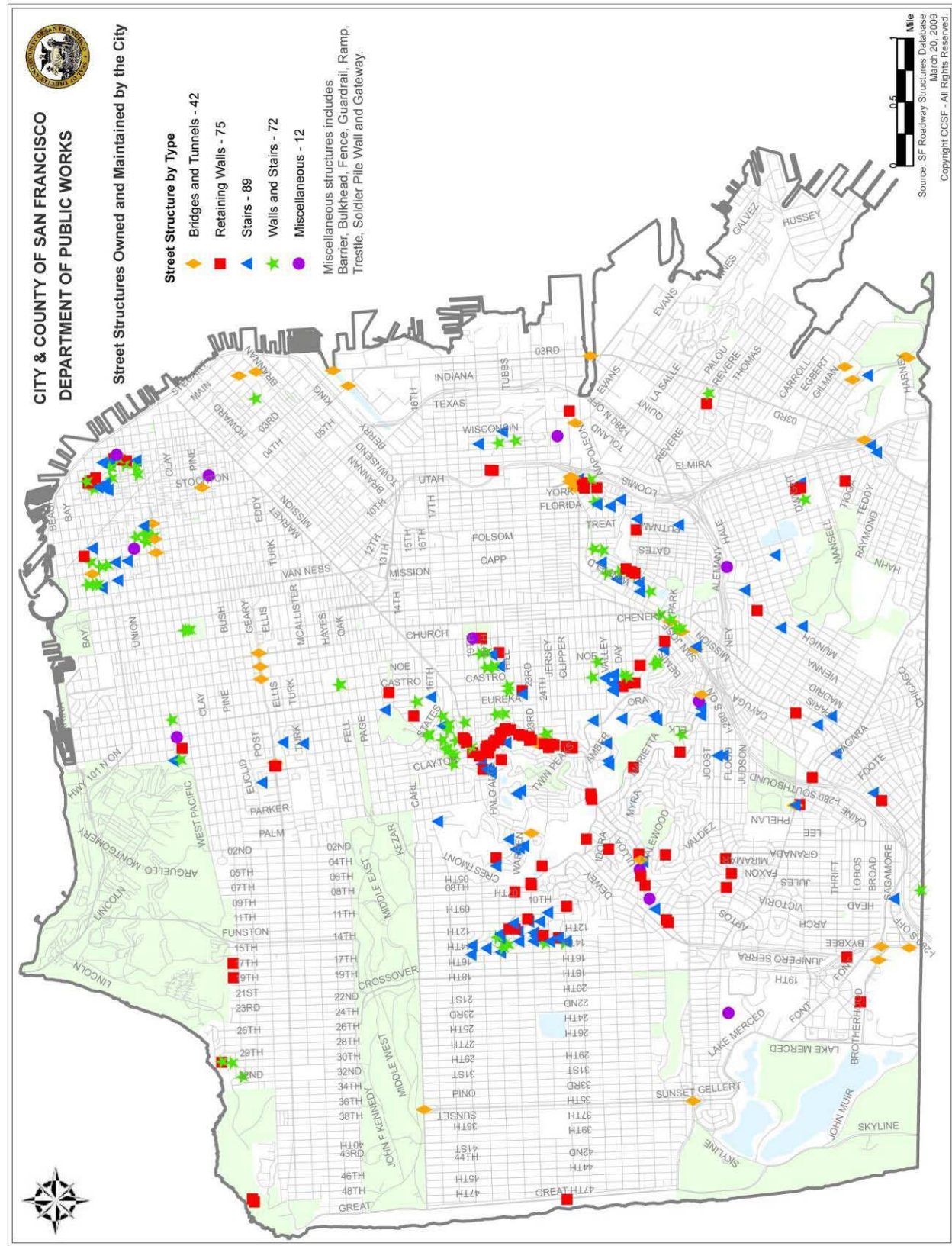
The following principles apply to all related programs funded through the 2009 Safe Streets and Road Repair Bond:

- The bond sets aside funds for Citizen’s General Obligation Bond Oversight Committee (CGOBOC) to conduct regular audits of bond expenditures as required by the Administrative code (Section 5.30 to 5.36). In addition, accountability bond reports will be submitted to the Clerk of the Board, Controller, Treasurer, Director of Public Finance and Budget Analyst in accordance with Administrative Code Section 2.70 – 2.74.
- The proposed bond funds are subject to the approval processes and rules described in the San Francisco Charter Administrative Code. CGOBOC will conduct an annual review of bond spending, and provide an annual report of the bond program to the Mayor and the Board of Supervisors.
- The City will also hold an annual public hearing of bond expenditures and the program before the Capital Planning Committee and the Citizen’s General Obligation Bond Oversight Committee. This will allow for public participation and an open forum for the community to provide feedback.
 - Proposed changes in funding, scope, or priorities in the bond programs will be presented before the Capital Planning Committee and undergo a hearing, a review, and an approval process, should any changes be necessary.
- The City will create and maintain a dedicated Web page outlining and describing the bond program, progress, activity updates, bond budget, and will include project names and estimated construction schedules.

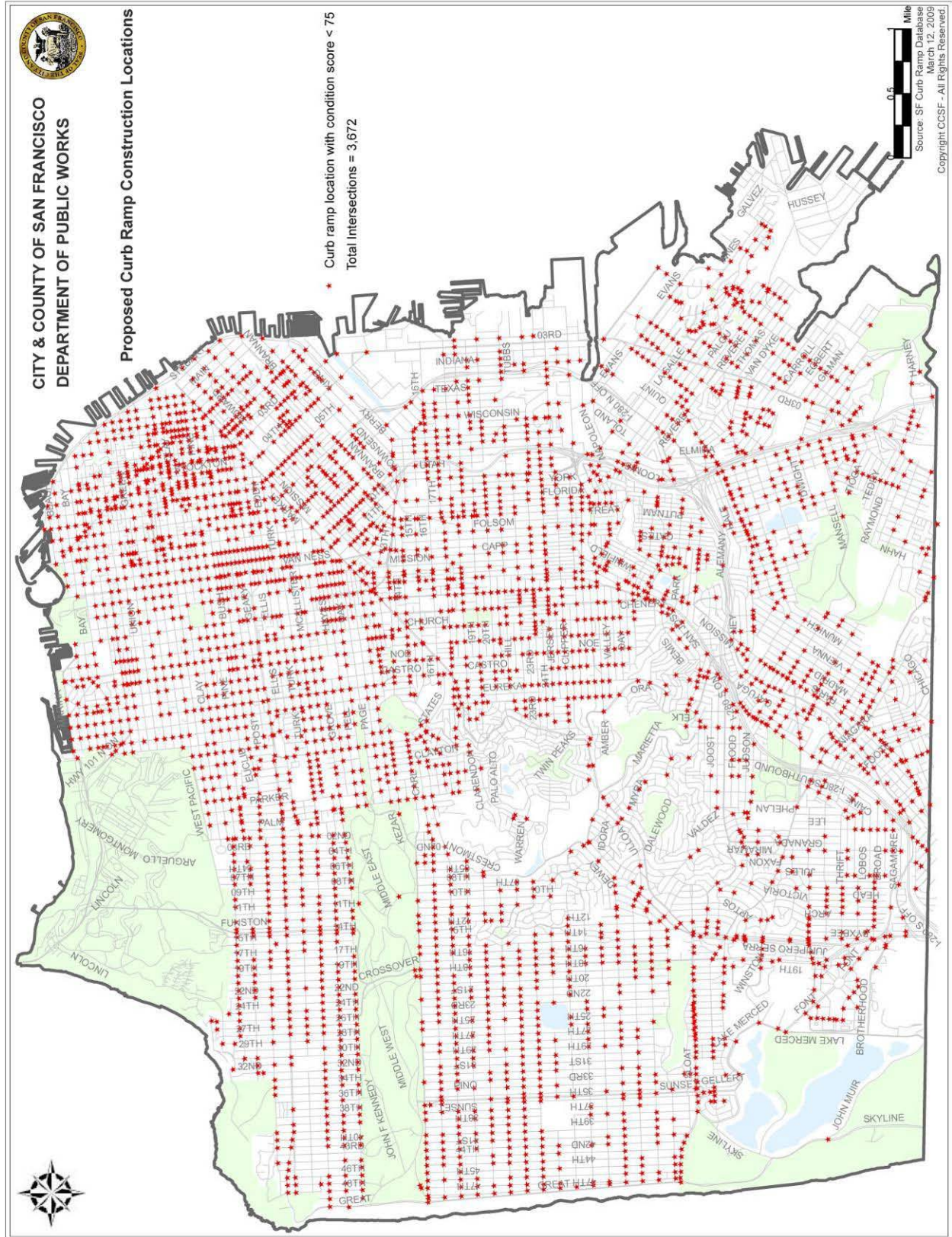
Map 1 Road Resurfacing



Map 2 Street Structures



Map 3 Curb Ramps



Map 4 Sidewalk Repair

