

El Cerrito Pothole Repair A Street Success Story

By Jerry Bradshaw, Director of Public Works, City of El Cerrito

When I came to work with the City of El Cerrito as the new public works director in 2004, the city had just invested a one-time amount of \$3 million in paving projects. El Cerrito is a small city with about 68 miles of street centerline, so a \$3 million investment was significant.

In early 2006, the results of our Pavement Management Program (PMP) update came in: Pavement Condition Index (PCI) was 53 out of 100 (down from 63 two years earlier); and our backlog was then \$21.2 million (up from \$7 million). In addition, it was going to take \$1.3 million per year just to keep our PCI from falling even lower. With a pavement maintenance budget of \$250,000 per year, we predicted our PCI would drop to 44 in five years with the backlog growing to \$25.5 million.

In February 2007, the Council learned that citizens rated the poor condition of our streets as their highest priority, based on polling to determine how the community felt about various major capital improvements. Staff was given clear direction to develop a local sales tax that would require a two-thirds voter approval.

Our plan was to promote a ballot measure with a realistic improvement plan, and, if approved, implement the plan quickly. We had until November 2007 to fully develop a new ordinance, a complete work plan, and ballot language. We also launched a public information campaign to publicize the measure and receive feedback; I spent my summer making presentations to various community groups and being



represented at every community event.

The Council placed the measure on the February 2008 Presidential Primary election ballot. The voters passed the “*El Cerrito Pothole Repair, Local Street Improvement and Maintenance Measure*” by 71 percent.

To implement the measure, we developed a work plan with the help of Avila Project Management. In addition, we relied heavily on StreetSaver, our PMP software developed by the Metropolitan Transportation Commission (MTC), to develop this improvement program for over a year. And with the assistance of Nichols Consulting Engineers, we analyzed our street data to figure out a plan of attack.

First, I should summarize what we promised to the voters. Although the ordinance was written to allow many peripheral improvements such as sidewalks, the overt promise to voters was to improve pavement condition. We estimated that we would *not* have enough funding to bring all the streets up to good condition, and expected to pull our average PCI up to 70 (from 53). We also promised to perform the bulk of the “catch up” work in four years.

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**User Week
Starts
March 28,
2011**

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El Cerrito

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It was a very aggressive schedule. Year 1 completed preparatory work such as utility relocation and included three contracts: patch paving, curb ramps, and a full paving project on three streets utilizing a federal Surface Transportation Program (STP) grant. We also began developing the schedule for the 2009 projects with an eye toward years 3 and 4. In the past, I relied on Street-Saver to lay out the treatments with minor modifications based on in-house knowledge of the streets. Full blown design documents were not the norm. With the upcoming fast track program, the same was true.

But the prep work was dependent on future treatments, so we had to have at least a preliminary treatment assigned to each street. With 44 percent of our streets in the Very Poor category (PCI < 25), we faced a huge list of streets that needed reconstruction. I was considering asphalt rubber (AR) cape seal after learning about it at a seminar. The AR cape seal works best if the underlying structure is sound and alligator cracking is due to age and weathering instead of structural failure. We decided to use AR cape seal as a treatment for a third of the city's streets, and to patch pave failed sections in preparation.

Another factor in our favor was the construction market and its sagging bid prices. We consistently received bids well below our engineer's estimates, allowing the City Council to authorize larger-than-normal contingency funding. The fast-track program led us to issue bid documents with rough estimates of quantities, and we found ourselves designing specific treatments in the field with a can of marking paint while the contractor was mobilizing. The large contingency funding allowed us to add more work at favorable pricing.

This modus operandi proved to be

exhausting yet fruitful. As the 2009 projects included significant extra work, we decided to compress the overall schedule into three years instead of the promised four. While this would deprive us of one year's worth of revenue (approximately \$600,000), we had saved more than that amount in low bid prices. In addition, we obtained grant funding for the program including a federal stimulus grant (being shovel ready) and two CalRecycle grants for the AR cape and some rubberized asphalt concrete work.

After only three years, the Street Improvement Program spent \$14.4 million (\$10.5 from bond proceeds, \$2.1 million from annual revenues, and \$1.8 million in grants.) We resurfaced 68 percent of our streets, built over 400 new curb ramps, and replaced 50 storm drain crossings. Our fast-track program kept our soft costs of design, inspection, and administration below 20 percent.

But the big news is the resulting pavement condition. In 2010 we commissioned Nichols (through the MTC Pavement Management Technical Assistance program) to perform another update to our PMP, and discovered that our new systemwide average PCI was 85 and our backlog was only \$500,000! This exceeded our wildest fantasies of success. Our ongoing annual maintenance costs will now be a modest \$500,000 per year instead of the \$1.3 million in 2006. The system average PCI of 85 is about as good as it can physically be since we do not normally treat a street until its PCI is near 70.

The take away from this success is that IT CAN BE DONE! It was not easy, and we were lucky in a few of our steps along the way. But I believe you make your own luck. The City's management team had the foresight and talent to explore options and prepare recommendations to our City Council. The Council had the courage to move

forward with a ballot measure and authorize me to move quickly and flexibly in the implementation.

But most of the credit goes to the citizens of El Cerrito. They were not afraid to tax themselves to make a profound difference in their community. The trust that the City's management team had been building through years of honest, transparent, and productive work paid huge dividends in this instance. I feel privileged to be working for this community and its citizens. Perhaps there are other communities out there with the character to perform a similar miracle.

Upcoming Events

StreetSaver® User Week March 28 – 31, 2011

Location:
Metro Center, 1st Floor, Auditorium
101 Eighth Street, Oakland 94607

*Technology Transfer Workshop –
Full Depth Rehabilitation*
Monday, March 28
8:30 a.m. to 12 noon

General Users Meeting
Monday, March 28
1 to 4 p.m.

Workshop I: Pavement Distress Survey
Tuesday, March 29
(Room 171)
9 a.m. to 4 p.m.

Location:
Alameda County Conference Center
4th Floor, Fremont Room
125 Twelfth Street, Oakland 94607

Workshop II: StreetSaver Training: Basic
Wednesday, March 30
9 a.m. to 4 p.m.

*Workshop III: StreetSaver Training:
Budget Analysis*
Thursday, March 31
9 a.m. to 4 p.m.

Next User Week: Nov. 28 – Dec. 1, 2011

Contact Kimberly Hughes
<khughes@mtc.ca.gov>
for more information on User Week.

MTC Puts \$84 Million to Work Keeping Bay Area Roads in Good Repair

By Craig Goldblatt, MTC

A key priority in the Metropolitan Transportation Commission’s regional investment strategy is to sustain the nine-county Bay Area region’s transportation system. To help cities and counties maintain their streets and roads, MTC has funded a Local Streets and Roads (LSR) Rehabilitation Program using federal Surface Transportation Program (STP) funding. The most recent cycle of this program provided roughly \$84 million to rehabilitate Bay Area streets and roads over the next two years. MTC relies on the region’s county congestion management agencies to work with their constituent jurisdictions and select the most promising and worthy projects for funding.

Street pavement in good repair “moves” people by supporting complementary modes of travel, including automobile travel, walking, bicycling and transit. In many cases,

local sponsors have taken advantage of other programs to enhance the performance of a street by making it safer and more comfortable for bicyclists and pedestrians. This design approach is referred to as “complete streets.” For example, a successful street project may include class II bicycle lanes, streetscape enhancements, bus stops and pedestrian features such as wider sidewalks and plazas. Two programs which fund these complementary street features are the county Transportation for Livable Communities (TLC) program and the Regional Bicycle (RB) program, both of which are managed by county congestion management agencies.

The table below summarizes the funding made available to Bay Area jurisdictions for these three programs over the current two year period — including federal fiscal years 2010-11 and 2011-12.

	Local Streets and Roads Program	Regional Bicycle Program	Transportation for Livable Communities Program	Total
Alameda	\$18,057,000	\$3,706,000	\$5,667,000	\$27,430,000
Contra Costa	\$10,527,000	\$2,166,000	\$4,223,000	\$16,916,000
Marin	\$3,344,000	\$1,583,000	\$970,000	\$5,897,000
Napa	\$2,405,000	\$581,000	\$518,000	\$3,504,000
Santa Clara	\$18,585,000	\$5,122,000	\$6,166,000	\$29,873,000
San Francisco	\$7,435,000	\$1,313,000	\$2,990,000	\$11,738,000
San Mateo	\$8,250,000	\$1,574,000	\$2,196,000	\$12,020,000
Solano	\$6,904,000	\$1,035,000	\$1,277,000	\$9,216,000
Sonoma	\$8,931,000	\$2,444,000	\$1,300,000	\$12,675,000
TOTAL	\$84,438,000	\$19,524,000	\$25,307,000	\$129,269,000

Software Updates and News

By Sui Tan, MTC

Target-Driven Scenario

The Target-Driven (formally known as PCI-Driven) Scenario Calculation is entering the final phase of beta testing. We want to thank our local agencies and consultant beta testers. Your feedback has made StreetSaver® more attuned to user needs. The release date is scheduled in late spring 2011.

Future Enhancements

MTC has applied for a research and development grant from CalRecycle. If the grant is approved, MTC will embark on developing new performance curves for asphalt rubber and PCI improvement models for various pavement preservation treatments. The research will take about six months to

complete and we anticipate that the new curves will be available in Street-Saver by fall 2012.

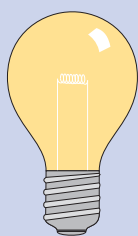
Our software development team will proceed at full speed in developing the asset management module. MTC will reconvene the Asset Management Steering Committee for the acceptance of the concept. The initial phase of the asset management module will provide an inventory system, as well as a needs assessment using replacement cost. Users will be able to keep track of non-pavement components, including (but not limited to) traffic signs, sidewalks, curbs and gutters, street lights, traffic signals and storm drains.

With smartphones gaining popularity, MTC is exploring the possibility of providing a mobile version of Street-Saver for mobile devices — such as smartphones, tablets or eReaders — to access StreetSaver via WiFi or 3G/4G connections. The mobile version would be independent of operating systems; instead, it is a Web-based application

that will work on any browser. Two versions may be available: Lite and Pro. The Lite version would be geared toward users that need to assess pavement conditions but do not need to run budget analysis, while the Pro version would include budget analysis feature that can be linked to StreetSaver Online.

Online Training

StreetSaver users soon will be able to sign up for online training. MTC is developing full-fledged webinars on StreetSaver. The webinars will typically run about 2-4 hours and will cover a series of StreetSaver topics. In addition, MTC will soon roll out “bite-sized” video tutorials on how to use the software. These 3 to 15-minute tutorials are designed to cover fundamental, intermediate and advance features of Street-Saver. It is an excellent tool for just-in-time training and as refresher courses. The video tutorials will be available on demand, and pricing has yet to be determined.



StreetSaver® Pavement Management Tip

Tip: To find the current overall PCI of your street network as of the day you run the report, follow these steps:

1. Click “Reports” under the “Reporting” module
2. Select “Network Summary Statistics” report

Network Summary Statistics				
	Total Sections	Total Center Miles	Total Lane Miles	PCI
Arterial	306	100.62	292.56	67
Collector	306	74.22	151.26	65
Residential/Local	2292	323.04	646.09	60
Total	2904	497.87	1,089.91	
Overall Network PCI as of 3/15/2011:				63

Street Talk



METROPOLITAN
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