Meeting Date: **12/9/2014**

Report Type: Staff/Discussion

Report ID: 2014-00848

City of SACRAMENTO **18**

City Council Report
915 I Street, 1st Floor
www.CityofSacramento.org

Title: City Auditor's Audit of the City's Sidewalk Repair Process

Location: Citywide

Recommendation: Pass a Motion approving the City Auditor's Audit of the City's Sidewalk Repair Process.

Contact: Jorge Oseguera, City Auditor, (916) 808-7270, Office of the City Auditor

Presenter: Jorge Oseguera, City Auditor, (916) 808-7270, Office of the City Auditor

Department: Mayor/Council
Division: Office of the City Auditor
Dept ID: 01001201
Attachments:
1-Description/Analysis
2-Audit of the City's Sidewalk Repair Process Report

City Attorney Review

Approved as to Form
Sandra Talbott
11/24/2014 8:49:48 AM

Approvals/Acknowledgements

Department Director or Designee: Jorge Oseguera - 11/14/2014 4:52:36 PM

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Description/Analysis

Issue Detail: This audit was approved as part of the 2012-2013 Audit Plan. According to City Code Chapter 2.18, the City Council should be kept apprised of the City Auditor's work. The Audit Committee shall receive, review, and forward to the full Council the City Auditor's updates and reports.

Policy Considerations: The City Auditor's presentation of the Audit of the City's Sidewalk Repair Process is consistent with the Mayor and the City Council's intent to have an independent audit function for the City of Sacramento.

Economic Impacts: None

Environmental Considerations: None

Sustainability: None

Commission/Committee Action: The Audit Committee unanimously accepted this report on November 13, 2014 and forwarded it to the full City Council for approval.

Rationale for Recommendation: This report includes four findings and makes twelve recommendations regarding the City's Sidewalk Repair Process.

Financial Considerations: The costs of performing this audit were funded out of the FY2014/15 Office of the City Auditor budget.

Local Business Enterprise (LBE): No goods or services are being purchased as a result of this report.

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Audit of the City's Sidewalk Repair Process

Report # 2014-05|November, 2014

The City's Sidewalk Repair Process is Performing Well in Key Areas and Is Using Practices Comparable to those of Other Local Governments

Some Local Governments Use Special Programs To Address Defective Sidewalks

Opportunities Exist to Enhance the Sidewalk Repair Process

Public Works Could Benefit From Leveraging the Use of the 7i System

City of
SACRAMENTO
Office of the City Auditor

Jorge Oseguera, City Auditor
Nicholas Cline, Senior Auditor

The City of Sacramento's Office of the City Auditor can be contacted by phone at 916-808-7270 or at the address below:

915 I Street
MC09100
Historic City Hall, Floor 2
Sacramento, CA 95814

Whistleblower Hotline

In the interest of public accountability and being responsible stewards of public funds, the City has established a whistleblower hotline. The hotline protects the anonymity of those leaving tips to the extent permitted by law. The service is available 24 hours a day, 7 days week, 365 days per year. Through this service, all phone calls and emails will be received anonymously by third party staff.

Report online at https://www.reportlineweb.com/cityofsacramento or call toll-free: 888-245-8859.

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City of SACRAMENTO
Office of the City Auditor

AUDIT FACT SHEET

RECOMMENDATIONS

We made the following recommendations to enhance the City's sidewalk repair process.

We recommend the Department of Public Works:

1. **Continue efforts to reduce the backlog, meet the 72-hour inspection goal and consistently bill property owners.**
2. **Evaluate the sidewalk repair programs of other local governments and determine if the City would benefit from pursuing similar strategies.**
3. **Evaluate whether the funding increase for non-billable repairs was sufficient to cover all associated costs and make any changes identified during the evaluation.**
4. **Continue to work towards reducing the backlog of sidewalk repairs to six months.**
5. **Consider adjusting fees to recover the actual costs incurred for sidewalk repair.**
6. **Create a monitoring method for the City's sidewalk repair collection efforts. Once the method is in place, evaluate efficiency opportunities on a regular basis.**
7. **Create a policy and procedure outlining the criteria for temporary sidewalk repairs.**
8. **Work with the Information Technology Department to automate the billing process for sidewalk repairs.**
9. **Evaluate the sidewalk repair process and determine what information should be recorded in the 7i system.**
10. **Make changes to the system as necessary and establish policies and procedures for these information requirements.**
11. **Work with the City's Information Technology Department to implement the use of the 7i system's mapping function.**
12. **Work with the IT Department to reestablish the automated alerts.**

Audit of the City's Sidewalk Repair Process

November, 2014 2014-05

BACKGROUND

California Streets and Highways Code Section 5610 holds property owners responsible for the maintenance of sidewalks fronting their property. Since 1978, City of Sacramento Code Section 12.32.020 reflects State law by requiring that property owners remove and replace any portion of a defective sidewalk adjacent to their property. The Department of Public Works manages sidewalk repairs for the City. This report examines the sidewalk repair process and concludes that the City has opportunities to increase efficiencies and more fully recover costs.

FINDINGS

The City's Sidewalk Repair Process is Performing Well in Key Areas and Is Using Practices Comparable to Those of Other Local Governments

- The City's sidewalk repair practices are consistent with other local governments;
- Sidewalk repair responsibility is in line with State law and most local governments surveyed;
- The City's method for identifying defective sidewalks is consistent with methods employed by other local governments; and
- Sidewalk repair backlogs are common.

Some Local Governments Use Special Programs to Address Defective Sidewalks

Well maintained and walkable sidewalks are a welcomed asset of many American communities. However, as shown in our survey, many of our surveyed local governments suffer from sidewalks that have fallen into disrepair and most struggle with ensuring sidewalks remain in good condition. In conducting our survey, we learned of a few notable programs used by other local governments to help meet the challenge of maintaining sidewalks. These include sharing the costs with property owners, requiring sidewalk inspections, and using alternative sidewalk repair methods.

Opportunities Exist to Enhance the Sidewalk Repair Process

Our audit revealed several ways that Public Works could improve the sidewalk repair program. Specifically Public Works:

- Should continue to reduce the backlog of sidewalk repairs;
- Could recover more than $300,000 annually in administrative and inspection costs affiliated with sidewalk repairs;
- Would benefit from the ability to monitor the cost recovery of sidewalk repair; and
- Should establish criteria for temporary sidewalk repairs.

Public Works Could Benefit From Leveraging the Use of the 7i System

Public Works is not taking advantage of all the efficiencies created by using an electronic project management system. For example, the data entry required for the billing of property owners is currently performed manually. This process could be automated to save both time and money. Other opportunities for efficiencies include:

- Better documentation of inspector notes;
- Using geographical data to analyze and manage repairs; and
- Using automated alerts to monitor important repair process dates.

Introduction

In accordance with the City Auditor's 2012-13 Audit Plan, we have completed the Audit of the City Sidewalk Repair Process. We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

The City Auditor's Office would like to thank the various City department personnel, especially the City Attorney's Office and the Public Works, Finance, General Services, and Utilities Departments for cooperation during the audit process.

Background

According to the Federal Highway Administration, sidewalks require regular maintenance to reduce the damage caused by the effects of weather and use over time. In addition, proper maintenance is essential to promote user safety, and to ensure ease of access. Challenges with sidewalk maintenance include a 20 to 40 year average service life for concrete sidewalks, tree roots affecting sidewalks, and coordination of maintenance with property owners.

Responsibility for sidewalk maintenance and repair

California Streets and Highways Code (State law) Section 5610 holds property owners responsible for the maintenance of sidewalks fronting their property. If the sidewalk becomes defective, State law requires the superintendent of streets to notify the owner to repair the sidewalk. In the City of Sacramento (City), the superintendent of streets is the Director of the Department of Public Works (Public Works) or their delegate.

Since 1978, City of Sacramento Code (City Code) Section 12.32.020 reflects State law by requiring that property owners remove and replace any portion of a defective sidewalk adjacent to their property. Further, City Code explicitly assigns liability to

Law and Code Governing Sidewalk Repair

California State Law: Streets and Highways Code places sidewalk maintenance responsibility on the property owner.

Sacramento City Code: Reflects State law by requiring property owners to maintain and repair sidewalks fronting their property.

Source: State Law and City Code

property owners for injuries caused by defective sidewalks. Specifically City Code states each owner required by section 12.32.020 to repair a defective sidewalk shall owe a duty to members of the public to keep and maintain the sidewalk area in a non-defective condition, if, as a result of the failure of any owner to maintain or repair the sidewalk as required by section 12.32.020, any person suffers injury or property damage, the property owner shall be liable to such person for the resulting injury or damage. City Code defines a sidewalk as defective when in the judgment of the director, the vertical or horizontal line or grade is altered or displaced, or such other condition that interferes with the public convenience in the use of the sidewalk.

City Code details timing requirements associated with the property owner performing their own sidewalk repair. Specifically, City Code states the owner shall commence the repairs required by the notice to repair within sixty (60) days after the owner elects either to personally perform the repairs, or hire a licensed contractor to perform the repairs, or within sixty (60) days after service of the second notice, whichever comes first. Once commenced, the repairs shall be completed diligently and without interruption. City Code also provides that if the cost of the sidewalk repair would cause a financial hardship on the property owner, the owner may enter into a payment plan to repay the cost.

Sidewalk Repair Roles

Department of Public Works: Manages sidewalk repairs and in most instances perform repairs.

Department of Finance: Manages collection of payment from property owners for completed sidewalk repairs.

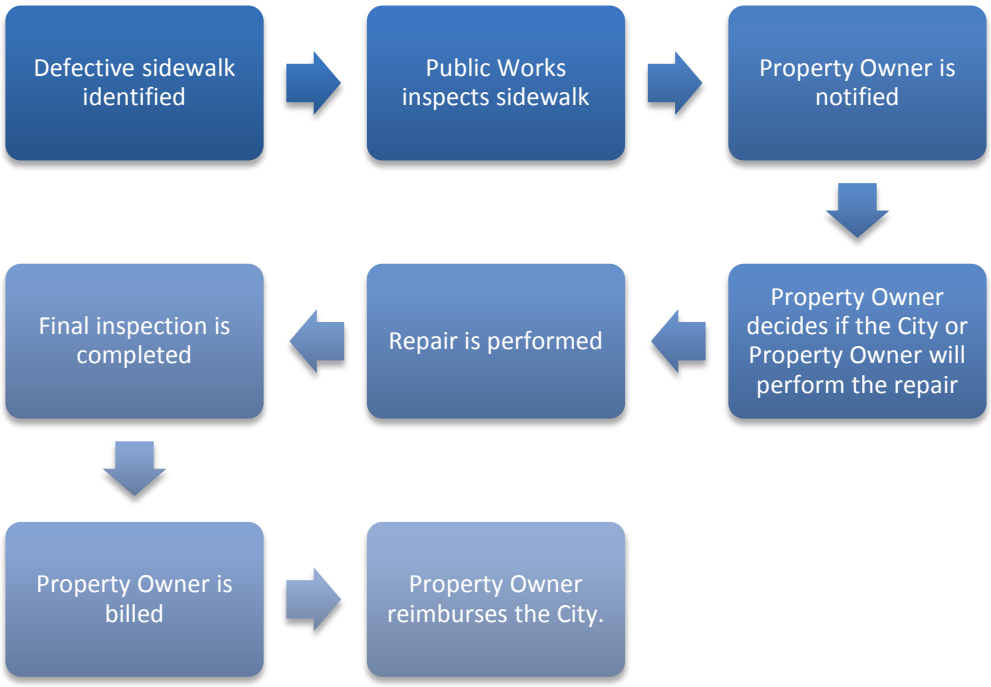
Property Owner: Maintains sidewalk adjacent to property.

Source: State Law and City Code

The sidewalk repair process

The Public Works' Division of Maintenance Services Concrete Maintenance Unit manages sidewalk repairs for the City. The Department of Finance's Revenue Division manages collection of payments after the repair is completed. Figure 1 on the next page outlines several of the steps in the sidewalk repair process. The subsequent report sections describe these steps in more detail.

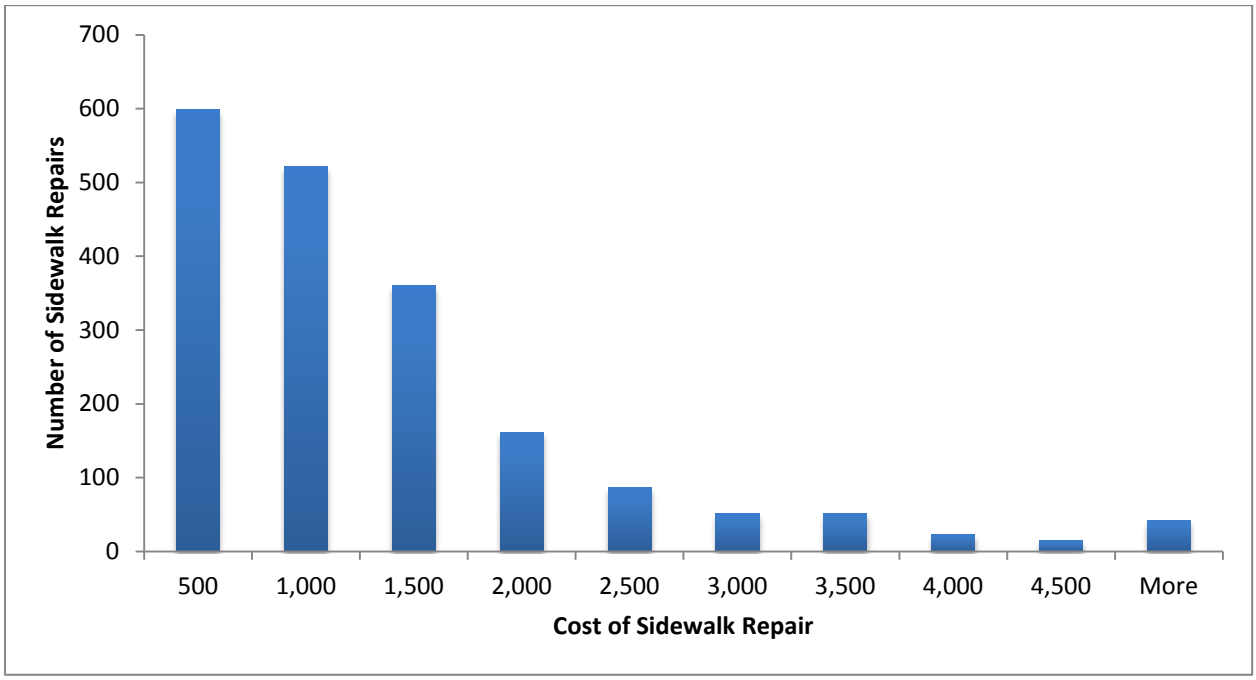
Figure 1 – Highlights of the Sidewalk Repair Process



Source: Auditor generated

During fiscal year 2013, over 1,900 sidewalk repairs were completed. Sidewalk repair costs vary greatly depending on the amount of sidewalk that needs repair. Using the histogram in Figure 2 on the next page, we analyzed the individual sidewalk repair costs for fiscal year 2013. The average amount the City billed property owners for this work was approximately $1,100 per repair; however, a significant number of repairs were less than $500. Public Works uses a project-based work management system, called the 7i system, to account for all the costs associated with each repair.

Figure 2 – Fiscal Year 2013 Sidewalk Repair Average Costs



Source: Public Works 7i system

Performing sidewalk repairs

Once notified of the defective sidewalk, it is Public Works' goal is to complete an inspection of the sidewalk within 72 hours. If the sidewalk is in need of repair, Public Works creates a work order and notifies the property owner of the need for repair. The property owner decides whether to repair the sidewalk on his or her own, or pay the City to perform the repair. The sidewalk repair notification letter includes an estimate of the cost to have the City perform the repair.

Public Works hires contractors to perform sidewalk repairs. Public Works goes before City Council to request approval of contracts with sidewalk repair contractors. In order to expedite sidewalk repairs, Public Works has several contracts approved at one time. In 2013, the City advertised an invitation for bids for the maintenance and repair of curbs, gutters and sidewalks and received eleven responsive bids from qualified contractors. Each contract has an initial term of one year, with the possibility of up to four one year extensions, for a maximum contract term of five years.

In an effort to increase efficiency, Public Works waits to compile several repairs in a geographical area, typically within a few blocks, before assigning them to a contractor. After compiling a list of repairs, typically

consisting of a month's worth of work, Public Works assigns the list to a contractor. This helps the contractor keep costs low by limiting the travel distance between repairs. In addition, this prevents potential traffic issues. For example, when two contractors are working in the same area, different sections of the same street can potentially be closed at the same time and cause traffic delays.

The actual repair consists of removing the defective section of sidewalk. Replacement concrete must meet City specifications for color and coarseness, and is typically dispensed wet from a cement mixing truck. Once the new cement is in place it needs a day or so to cure, or dry. Exhibit 1 shows crews completing sidewalk repairs.

Exhibit 1 – Contractors Laying Cement for a Sacramento Sidewalk

Source: Auditor photographs

The City also allows temporary sidewalk repairs, such as adding an asphalt ramp, provided certain conditions are met. These repairs are temporary and intended to mitigate defective sidewalks until a permanent repair is completed.

Billing and collecting for sidewalk repairs

The assigned contractor sends a bill to Public Works once the sidewalk repair is completed, which serves as the formal notification of repair completion. Upon confirming that the work was completed properly, Public Works processes payment to the contractor and bills the property owner. The Revenue Division then takes over processing payments as well as any needed collection efforts. Our testing found that in most cases, property owners pay the bill in full. However, the Revenue Division offers

payment plans to property owners who prove a financial hardship. The Revenue Division works with the property owner to determine the number of payments necessary. Payment plans can range from several months to several years.

If a property owner defaults on the repair bill or is unresponsive, the Revenue Division may pursue a special assessment to collect the costs. As allowed by State law, the City directs the County of Sacramento to add the cost of unpaid sidewalk repairs to the owner's property tax bill as a special assessment. Special assessments require City Council approval and are only presented to Council once per year.

The Revenue Division may use a third party collections company to pursue recovery of sidewalk repair costs that were not recouped using the previously mentioned methods. Sidewalk repair cost recovery might require the involvement of a collection agency when the property has changed ownership during the repair process.

Sidewalk repair costs

The cost to repair sidewalks in the City was approximately $4.8 million in fiscal year 2012 and $4.7 million in fiscal year 2013. These amounts include approximately $800,000 in annual costs for non-billable repairs such as the curb and gutter adjacent to the repaired sidewalk. The majority of expenditures, approximately 80 percent, were payments to contractors for sidewalk repairs. The remaining costs are for Public Works employees managing and inspecting sidewalk repairs.

The City's General Fund provides the initial funding for Public Works to complete sidewalk repairs. Once the repairs are completed, the General Fund is reimbursed either by property owner payments or transfers from other funds such as Measure A. Figure 3 on the next page, reflects the use of the General Fund for fiscal years 2012, 2013 and 2014.

Figure 3 – General Fund Use for Sidewalk Repairs

General Fund	Fiscal Year 2012	Fiscal Year 2013	Fiscal Year 2014
Services and Supplies (Sidewalk and Curb Repair costs)	($4,045,596)	($3,899,521)	($3,043,012)
Employees Services (Public Works' Payroll)	(770,484)	(800,461)	(815,810)
Other Misc. Expenditures	(24,849)	(8,702)	(2,157)
Payments for Street Sidewalk and Curb Repairs	2,132,408	2,309,594	1,708,268
Billing Reimbursements	981,545	656,759	658,215
Other Reimbursements			
Measure A Maintenance Fund	1,096,927	1,049,284	1,707,254
Gas Tax Fund	106,694	239,182	
Citywide Landscaping and Lighting District Fund		237,207	
Total (Unreimbursed)/Reimbursed	($523,355)	($216,659)	$212,757

Source: The City's Electronic Citywide Accounting and Payroll System (eCAPS)

The number of sidewalk repairs completed and the amount collected from property owners varies each year. As a result, the annual amount budgeted may not be sufficient to cover the total annual expenditures, as shown in Figure 3. When this occurs, Public Works may reallocate unused funding from other divisions to make the General Fund whole.

Billing reimbursements represent repayment for work performed for other City departments. For example, if the Utilities Department removes a section of sidewalk during a utility repair, Public Works will replace the removed section of sidewalk. The Utilities Department then reimburses Public Works for the repair.

Other reimbursements consist of transfers from other City funds. Just over 20 percent of the sidewalk repair funding is from Measure A in fiscal years 2012 and 2013. The local measure imposes a countywide half-cent sales tax, the proceeds of which are to be used on a variety of transportation related costs including highway, street, and road construction and maintenance. Previously, the Gas Tax also provided reimbursement to the General Fund; however, Public Works discontinued its use in fiscal year 2014.

Barden et. al. v. City of Sacramento

The City was challenged in its compliance with the Americans with Disabilities Act (ADA) in a case brought against the City in 1999, *Barden et. al. v. City of Sacramento, et. al.* This case alleged that by failing to install

curb ramps and otherwise provide access to streets and sidewalks the City violated various Federal and State laws.

According to the Barden Agreement, each year Public Works shall report a plan to the City's advisory commission, which makes pedestrian access improvement recommendations to City Council based on the report. The report and recommendations are provided to City Council for approval. In addition, the City Council is provided bi-annually with a report on the actual work done to implement the Barden Agreement during the previous six months. The Barden Agreement will remain in effect for 30 years or until the City successfully shows it provides access to pedestrian rights of way.

Objective, Scope, and Methodology

Our objective was to assess the effectiveness of the City's sidewalk repair process. This included a review of the process for identifying, prioritizing and addressing the repair of sidewalks within the City of Sacramento. To achieve our objective, we conducted reviews of relevant codes, laws and regulations, public information on sidewalk repairs in other cities in California, and reports and files from within City departments. We analyzed reports generated from Maintenance Services' 7i system, and the electronic Citywide Accounting and Personnel System (eCAPS). We reviewed hard copy documents in our sample testing at the Department of Public Works and Department of Finance. The scope of our audit focused on fiscal years 2012 and 2013.

During our review, we encountered challenges with the data from the 7i system. For example, the current data system does not capture the necessary information to facilitate analysis of how long it takes to complete a sidewalk repair. Similarly, a lack of account reconciliation for accounts receivable meant management and auditors relied on manual reviews of individual records to ascertain trends like the average length between when a repair is completed and when the City is repaid. To assess the reliability and integrity of the data, we compared the number of sidewalk repairs completed annually to eCAPS data. Although we encountered challenges during our testing, we relied on this information as it was the best available.

In addition, we encountered challenges with an eCAPS report used by the Revenue Division on accounts receivable for sidewalk repairs. The Revenue Division uses an electronic query to search for and extract

accounts receivable data in eCAPS for sidewalk repairs. The summarized amounts from the electronic query did not reconcile with eCAPS summary financial reports. Although we could not reconcile the two reports, we relied on this information as it was the best available.

Lastly, we reviewed sidewalk repair process internal controls including payments to contractors and billing of property owners.

Finding 1: The City's Sidewalk Repair Process is Performing Well in Key Areas and Is Using Practices Comparable to Those of Other Local Governments

As we describe in the background, State law and City Code holds property owners responsible for the maintenance of sidewalks fronting their property. The City's Department of Public Works (Public Works) is responsible for managing the City's sidewalk repair practices. Based on our sampling of sidewalk repairs, it appears that Public Works is doing things well such as reducing the backlog of sidewalk repairs and meeting inspection goals. Based on our comparison, we found that many of the City's sidewalk repair practices are consistent with other local governments. Additionally we found:

- Sidewalk repair responsibility is in line with State law and most local governments surveyed;
- The City's method for identifying defective sidewalks is consistent with methods employed by other local governments; and
- Sidewalk repair backlogs are common.

Public Works should continue efforts to reduce the backlog, meet its 72-hour inspection goal, and consistently bill property owners.

Public Works should continue efforts to reduce the backlog, meet its 72-hours inspection goal, and consistently bill property owners.

Our testing revealed Public Works is performing well in key areas

Public works has reduced its backlog of sidewalk repairs and is consistently meeting inspection goals. In our opinion, these accomplishments have improved the sidewalk repair process and should be continued.

Public Works recently reduced the sidewalk repair backlog

In February 2012, Public Works began an effort to reduce some of its oldest sidewalk repairs. At that time, the oldest outstanding sidewalk repair was nearly five years old. Public Works continued efforts to reduce the backlog in 2013 and 2014. As of June 2014, the oldest sidewalk repair was approximately two years old. Public Works should continue these efforts to eliminate the backlog and avoid future backlog growth.

Public Works is meeting its 72-hour inspection goal approximately 70 percent of the time

Once Public Works receives a citizen complaint identifying a potentially defective sidewalk, it makes an effort to inspect and assess the complaint quickly. It is Public Works' goal to complete an initial inspection within 72 hours (3 days) of receiving a defective sidewalk complaint. As part of our sample testing of sidewalk repairs, we evaluated whether Public Works was meeting this goal. We found that approximately 70 percent of the 22 selected repairs were inspected within 72 hours[1]. Thus, Public Works should continue to work towards meeting this goal for all initial inspections.

Public Works is consistently billing property owners

Public Works is notified of the completion of a sidewalk repair when it receives an invoice from the contractor who performed the work. Contractors are assigned several repairs at once; thus each invoice contains several repairs. Once the invoice is received, Public Works inspects the completed repair to ensure it meets certain requirements, such as ensuring the defective sidewalk was actually completed and evaluating that the sidewalk slope meets Public Works' specifications. As part of our sample testing of sidewalk repairs, we evaluated how long it took Public Works to bill property owners once it received notification that a repair was completed. We found that Public Works billed property owners an average of 41 days after receiving the contractor's invoice. This appears reasonable given that Public Works bills property owners once per month. Public Works should continue billing property owners in a timely manner. We identified an opportunity to further enhance billing property owners and discuss it in Finding 4.

The City's sidewalk repair practices are consistent with other local governments

To gain perspective on whether the City's practices are consistent with other local governments and identify potential best practices, we surveyed 14 other local governments in California, including 13 cities and 1 county. We included cities larger than Sacramento such as Los Angeles, San Jose, San Francisco, and Fresno, and cities smaller than Sacramento such as Long Beach, Bakersfield, and Pasadena. We also surveyed several of the local governments surrounding Sacramento such as Roseville,

[1] We did not use a statistical sample and therefore the results cannot be projected on the entire population of repairs.

Folsom, West Sacramento, Elk Grove, Rancho Cordova, Citrus Heights and Sacramento County. Figure 4 below summarizes the results of our survey.

Figure 4 – Summary of Local Government Survey Results

Local government	Responsible for sidewalk repairs	Miles of sidewalk	Annual budget for sidewalk repairs	Backlog of sidewalk repairs
City of San Jose	Property Owner	4,500	$800,000	2-3 weeks
City of Sacramento	Property Owner	2,300	$2.3 million	2 Years
City of Bakersfield	Property Owner	1,896	N/A[1]	No Backlog
City of Fresno	Property Owner	1,875	$1.7 million	Backlog exists, unsure of time frame
City and County of San Francisco	Property Owner	1,496	$1.8 million	Several Years
City of Elk Grove	Property Owner	1,100	$150,000	No Backlog
City of Pasadena	Property Owner	550	N/A[1]	Backlog exists, unsure of time frame
City of Roseville	Property Owner	650	$80,000	Backlog exists, unsure of time frame
City of West Sacramento	Property Owner	440	N/A[1]	No Backlog
City of Los Angeles	City	10,750	$20 million	Backlog exists, unsure of time frame
Sacramento County	County	2,470	$400,000	Several Years
City of Long Beach	City	1,580	$3 million	12 years
City of Rancho Cordova	City	380	$150,000	10 Years
City of Folsom	City	N/A[2]	$100,000	Several Months
City of Citrus Heights	City	N/A[2]	$350,000	No Backlog

Source: Auditor generated based on survey of local governments

Legend

1 - Bakersfield, Pasadena, and West Sacramento do not budget for sidewalk repairs.
2 – Folsom and Citrus Heights do not have an estimate for the number of miles.

NOTE: This survey summarizes the responses we received. We did not verify the accuracy of the information reported.

Our survey revealed two notable practices where the City is in line with most local governments surveyed. These practices include placing

sidewalk repair responsibility on property owners and the method of identifying defective sidewalks.

Sidewalk repair responsibility is in line with State law and most local governments surveyed

As described in the background, California State law places the responsibility of sidewalk repairs on property owners, and City Code reflects this requirement. We found this requirement common amongst the local governments we surveyed. In fact, 8 of the 14 local governments surveyed also place responsibility of sidewalk repairs on property owners. Although not required by law, some local government entities have chosen to absorb the costs of sidewalk repairs. Our survey found that local governments who take responsibility for sidewalk repairs have some of the largest repair budgets and backlogs. For example, the Los Angeles Times reported that the City of Los Angeles, who pays for all sidewalk repairs, recently increased its budget for sidewalk work to more than $20 million[2], and currently has an estimated $1.5 billion liability for unrepaired sidewalks[3]. Further, the County of Sacramento, who also accepts responsibility for sidewalk repairs, budgets approximately $400,000 annually, yet estimates $40 million in unrepaired sidewalks costs. The City of Long Beach budgets approximately $3 million per year for sidewalk repairs, yet it still has a 12-year repair backlog. Without a significant increase in funding, these local governments' outstanding number of sidewalk repairs will likely continue to grow.

In fact, 8 of the 14 local governments surveyed also place responsibility of sidewalk repairs on property owners.

Once a local government assumes responsibility for sidewalk repairs, it is very difficult to reverse the decision. For example, the City of Los Angeles (Los Angeles) originally assumed responsibility in the 1970s when federal funding was available to repair sidewalks. After the federal funding ran out, Los Angeles attempted to reinstate property owner responsibility for sidewalk repairs; however, property owners objected and Los Angeles retained responsibility[3]. More recently, in the fall of 2013 the City of Rancho Cordova (Rancho Cordova) attempted to change its practice of paying for sidewalk repairs and assign responsibility to property owners. At the City Council meeting where the change in policy was to be heard, Rancho Cordova experienced the largest number of public comments in

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[2] Reyes, Emily Alpert, "L.A. councilman seeks systematic plan on sidewalk repairs" Los Angeles Times 2 July 2014. 2 October 2014. http://www.latimes.com/local/lanow/la-me-ln-sidewalk-repair-plan-20140702-story.html

[3] Shoup, Donald. "A big step toward safer sidewalks." Los Angeles Times 18 Aug. 2014. 25 Aug. 2014. http://www.latimes.com/opinion/op-ed/la-oe-0819-shoup-los-angeles-sidewalks-20140819-story.html

its history. Citizens were frustrated with the proposed changes and pushed back. In the end, City Council decided not to change Rancho Cordova's practice.

The City's method for identifying defective sidewalks is consistent with methods employed by other local governments

According to Public Works, the primary method for identifying defective sidewalks is through citizen complaints. Citizens can call the City's 311 call center to report defective sidewalks, which prompts inspection by Public Works. Public Works asserts that other City entities, such as the Utilities Department and other divisions of Public Works, identify a smaller number of repairs. For example, the Department of Utilities could report a sidewalk in need of repair that was observed during a utilities related project. In addition, the Department of Public Works' Pavement Maintenance Section could identify a sidewalk in need of repair during its annual road resurface repair project. Once Public Works identifies a potential defective condition, an inspector examines the site of the complaint plus 50 to 75 feet in either direction for any additional defective sidewalks.

Similar to the City, all 14 local governments we surveyed also use citizen complaints as a method for identifying defective sidewalks. In addition to processing citizen complaints, seven of the local governments also survey the sidewalks within their jurisdiction. For example, in 2004, the City of Pasadena (Pasadena) performed a survey of all sidewalks using two civil engineering student interns. These interns walked the streets of Pasadena and identified sidewalks with displacements greater than three quarters of an inch. Pasadena is again preparing to have interns survey sidewalks and anticipates having it completed in 2015. Some of the local governments that complete such surveys, do so once a year, while others complete them periodically or only within certain districts. A survey of all sidewalks provides a more complete listing of defective sidewalks compared to citizen complaints. However, sidewalk surveys could result in the City identifying many more sidewalk repairs then it can complete in the course of a year, thus creating a backlog of repairs.

Sidewalk repair backlogs are common

The majority of the local governments we surveyed are experiencing some level of backlog for sidewalk repairs. The City of Long Beach is experiencing a backlog of 12 years and the City of Rancho Cordova has a 10-year backlog. As of August 2014, the City of Sacramento had a two-year backlog, which is discussed further in Finding 3.

RECOMMENDATION:

We recommend that the Department of Public Works:

1. **Continue efforts to reduce the backlog, meet the 72-hour inspection goal and consistently bill property owners.**

Finding 2: Some Local Governments Use Special Programs to Address Defective Sidewalks

Well maintained and walkable sidewalks are a welcomed asset of many American communities. However, as shown in our survey, many of our surveyed local governments suffer from sidewalks that have fallen into disrepair and most struggle with ensuring sidewalks remain in good condition. In conducting our survey, we learned of a few notable programs used by other local governments to help meet the challenge of maintaining sidewalks. These include sharing the costs with property owners, requiring sidewalk inspections, and using alternative sidewalk repair methods.

Sharing sidewalk repairs costs with property owners

Some local governments share the costs of sidewalk repairs with property owners. For example, the City of Long Beach will pay half the costs of a sidewalk repair up to $500. This creates an incentive for the property owner to complete the sidewalk repair. Similarly, the City of Pasadena began piloting a cost-sharing program in 2013 to pay half the costs, up to $1,000, for sidewalk repairs involving City trees. The average cost of a residential sidewalk repair in the City of Sacramento (City) for fiscal year 2013 was approximately $1,100. Sharing the costs with property owners would likely increase the costs for the City.

To provide perspective on the potential costs of a cost-sharing program, we created an estimate based on our fiscal year 2013 sidewalk repair activity. For example, if the City paid half the costs up to $500, the City would incur approximately $650,000 in additional sidewalk repair costs. If the maximum were $1,000, the City would incur approximately $780,000 in additional sidewalk repair costs. These costs are significant in comparison to the current overall program costs. As we describe in the background section, the City spends over $3 million annually on sidewalk repairs. The City could see sidewalk repair costs increase by 25 percent if a similar program was implemented.

Mandatory sidewalk inspections

During our survey of other local governments, we found that the City of Pasadena (Pasadena) requires a sidewalk inspection at the sale of a property or before issuing a large building permit. Specifically Pasadena's municipal code states in addition to any regular or special sidewalk inspection which may occur, the city shall inspect the condition of the sidewalk abutting or fronting on a particular piece of property prior to the

During our survey of other local governments, we found that the City of Pasadena requires a sidewalk inspection at the sale of a property or before issuing a large building permit.

issuance of any single or multifamily occupancy permit or any building permit for work in excess of $5,000 pertaining to the occupancy or construction on that property and issued after January 1, 1993. All such permits, prior to final issuance, shall require a notation that a sidewalk inspection was completed and that either the sidewalk is not in need of repair, that repair has been completed or that repair has been bonded to the satisfaction of the engineer[4]. According to Pasadena, it is one of the few local governments in the State to require an occupancy permit during the sale of a home. Pasadena charges approximately $140 for an occupancy permit and performs between 1,500 and 2,100 occupancy permit inspections per year.

By establishing such a program, a City would likely be able to better identify defective sidewalks. However, initiating a similar program in the City of Sacramento would require a change to City Code, adding both the occupancy permit and sidewalk inspection requirements. Further, given the volume of home sales in Sacramento, these changes would likely result in additional costs to the City related to performing inspections and issuing permits.

Alternative sidewalk repair methods

Three of the cities we surveyed, Citrus Heights, Elk Grove, and Long Beach use the same specialized contractor to assist in performing sidewalk repairs. The contractor has a unique method for repairing sidewalks. Instead of grinding down a displaced sidewalk, the contractor uses a special cutting tool to cut and remove a thin layer of concrete evenly across the sidewalk. This type of repair is not possible on all sidewalks. If the sidewalk is broken or displaced unevenly then it is not a good candidate for the concrete cutting repair method. The City of Citrus Heights has retained the contractor to perform these services for $15,000 for three months of services. The City of Long Beach has retained this contractor for $200,000 to perform 8,000 Inch-Feet of services.

The concrete cutting method does not correct the problem that caused the defective sidewalk in the first place, such as a tree root lifting the sidewalk. Further, the cutting results in the removal of a portion of the sidewalk, which weakens the sidewalk and may make it more prone to damage in the future.

[4] Engineer means the city engineer and superintendent of streets.

Previously, the City of Sacramento looked into using the same contractor and decided not to pursue using the contractor because the methods were too similar to those currently used in grinding sidewalks.

Concrete cutting is not the only alternative used by other local governments. Although not included in our survey, we found that the City of Santa Monica used rubber sidewalks to replace sidewalks altered by tree roots. The rubberized sidewalks stretch to accommodate growing tree roots and can be removed and replaced easily to allow for tree root trimming. However, the lifespan of these rubberized sidewalk panels have not met expectations for the City of Santa Monica. CityLab.com reported that instead of lasting the original estimate of 7 to 10 years, many of the panels have only lasted two years[5]. This shortened lifespan would significantly reduce the cost effectiveness of the alternative.

The City of Sacramento is experimenting with alternatives to concrete sidewalks. For example, the City currently has plastic and rubberized sidewalks at several test locations. Public Works is evaluating the cost-benefit of using these alternatives as well as the lifespan. Exhibit 2 illustrates two of the test locations. The left photo is plastic sidewalk installed approximately two years ago. The right photo is rubberized sidewalk installed approximately ten years ago.

Exhibit 2 – Alternatives to concrete sidewalk repairs

Source: Auditor photographs

[5] Berg, Nate "The Sidewalk of the Future Is Not So Concrete" CityLab.com 22 May 2014. 2 October 2014. http://www.citylab.com/tech/2014/05/the-sidewalk-of-the-future-is-not-so-concrete/371377/

RECOMMENDATION:

We recommend that the Department of Public Works:

2. **Evaluate the sidewalk repair programs of other local governments and determine if the City would benefit from pursuing similar strategies.**

Finding 3: Opportunities Exist to Enhance the Sidewalk Repair Process

The Department of Public Works is responsible for managing the City's sidewalk repair process. Given this responsibility, Public Works has a duty to ensure the sidewalk process is efficient and effective. Our audit revealed several ways that Public Works could improve the sidewalk repair program. Specifically Public Works:

- Should continue to reduce the backlog of sidewalk repairs;
- Could recover more than $300,000 annually in administrative and inspection costs affiliated with sidewalk repairs;
- Would benefit from the ability to monitor the costs recovery of sidewalk repair; and
- Should establish criteria for temporary sidewalk repairs.

By addressing these issues, the City can more efficiently operate the sidewalk repair process.

Public Works should continue to reduce the backlog of sidewalk repairs

It is Public Works' goal to avoid delaying sidewalk repairs for more than six months. However, Public Works has not been able to keep up with this goal resulting in a backlog of pending repairs. In 2012, Public Works had a backlog of over 1,400 incomplete sidewalk repairs dating back nearly five years. Although Public Works has made an effort to reduce the backlog, a backlog of repairs as old as two years still exists as of our review date in June 2014. We found that more than 40 percent of the current backlog is older than six months. Possible contributing factors for the backlog include insufficient funding for non-billable repairs, repair assignment priority and weather related delays.

According to Public Works, insufficient funding for non-billable repairs is a contributor for the backlog in sidewalk repairs. The vast majority of non-billable costs are for curb and gutter repairs. The City is responsible for the maintenance and repair of curb and gutters, which are adjacent to the majority of sidewalks in the City Sacramento. When non-billable funding is exhausted, it delays sidewalk repairs requiring curb and gutter work until the following fiscal year when additional funding is available. In the past, inspectors have exhausted their non-billable repair allocation with several months remaining in the fiscal year. For example, in fiscal year 2012 one inspector used the entire allocated budget by the end of April 2013, two

months before the year ended. In fiscal year 2013, another inspector exceeded the budget allocation in October 2013, eight months before the year ended. In fiscal year 2014, Public Works recognized the need to increase non-billable funding and the budget was increased.

Another cause for the backlog of sidewalk repairs is Public Works' historical practice of waiting for repairs to collect in a geographical area. Using the geographical areas identified on hardcopy maps, Public Works waits until approximately a month's worth of repairs are in close geographical proximity, usually within a few blocks. Because it might take several months to a year before repairs accumulate in an area, this method of prioritizing may also have contributed to the backlog of sidewalk repairs. Lastly, weather can also delay repairs, as concrete cannot properly cure in wet or freezing conditions.

To illustrate the number of repairs outstanding, we asked the City's Information Technology (IT) Department to populate a City map with the locations as of June 2014 (See Appendix A). The map reflects the number of repairs in 2,000-foot radiuses and summarizes the number of repairs within each City council district in the legend.

As described in Finding 1, Public Works has made an effort to reduce the backlog of sidewalk repairs. Nevertheless, a backlog of repairs still exists and is undesirable. As such, it is in the best interest of the City to continue its efforts to reduce the backlog.

RECOMMENDATION

We recommend that the Department of Public Works:

3. **Evaluate whether the funding increase for non-billable repairs was sufficient to cover all associated costs and make any changes identified during the evaluation; and,**

4. **Continue to work towards reducing the backlog of sidewalk repairs to six months.**

Public Works could recover more than $300,000 annually in administrative and inspection costs affiliated with sidewalk repairs

Our testing found that Public Works invoices property owners for the contractor's repair costs and the City's current administrative costs. However, we found that Public Works is not recovering the full administrative costs as allowed by City Code. City Code authorizes recovery for administrative and inspection costs stating the owner is responsible to pay the cost of all work provided by the city in connection with the repair of a defective sidewalk, including administrative and inspection costs. The purpose of such fees is to recover the costs associated with inspecting defective sidewalks as well as general administration of the sidewalk repair process. We found that Public Works is charging property owners a $40 administrative fee, which does not fully recover the administrative and inspection costs incurred by the City.

However, we found that Public Works is not recovering the full administrative costs as allowed by City Code.

The current administration fee[6] for sidewalk repair is intended to cover costs for performing the preliminary inspection, preparing the cost estimate, noticing the property owner, performing the final inspection, and billing the property owner. From 1978 to 2010, the administration fee charged for sidewalk repairs was set at $20. However, in 2010 Public Works estimated that the actual costs for providing these services were closer to $185. As a result, Public Works considered increasing the fee to $100 in 2010 with additional planned increases of $50 in 2011 and $50 in 2012. However, Public Works ultimately decided to only increase the fee to $40. We inquired on the reasons for not increasing the fee to a larger amount. Public Works asserted that two of the factors in its decision were an effort to minimize the financial burden to property owners and that Measure A funding can be used to reimburse administrative and inspections costs. Although these reasons are valid, recovering the actual cost of inspections could help Public Works reduce or eliminate the backlog of sidewalk repairs.

According to Public Works the estimated cost for the City to perform sidewalk inspections was approximately $105 per hour. Each sidewalk repair completed requires at least two inspections at one hour per inspection. Thus, Public Works incurs costs of approximately $210 ($105

[6] A small number of inspections are performed that do not result in a sidewalk repair (approximately 5 percent). The inspection costs associated with these complaints are absorbed by Public Works.

per hour x two hours) per sidewalk repair. Consequently, Public Works is not recovering an estimated $170 per sidewalk repair as shown in Figure 5.

Figure 5 – Costs Not Recovered for Sidewalk Repairs

Fees for Sidewalk Repairs	
Estimated amount of costs incurred	$210
Amount currently charged	40
Difference/Amount not recovered	**($170)**

Source: Auditor generated

If the City charged an administrative fee of $210 instead of $40, it would have more fully recovered the administrative and inspection costs of sidewalk repairs. We estimate this change in fees would have increased the reimbursement by more than $300,000 annually. Figure 6 below shows the breakdown of the estimate.

Figure 6 – Estimated Impact of Costs Not Recovered for Sidewalk Repairs

	Fiscal Year 2012 (1,862 repairs)	Fiscal Year 2013 (1,911 repairs)
Estimated Costs of $210 per repair	$ 391,020	$ 401,310
Current Fee of $40 per repair	74,480	76,440
Estimated Costs Not Recovered	$ 316,540	$ 324,870

Source: The 7i system and auditor generated

NOTE: This estimate does not include the costs incurred for performing the sidewalk repair.

Seeking reimbursement for administrative and inspection fees is common in the City. Public Works' Engineering Services Section recovers the actual costs it incurs for encroachment/excavation (encroachment) permits through fees. Encroachment permits are needed for property owners to repair sidewalks on their own[7]. The property owner must complete a permit application and include the completion of various plans, proof of insurance and a deposit. The final fee is determined based on the time it takes Public Works to perform an inspection and process the permit. According to Public Works, this type of permit could cost approximately $255 or more. Given that Public Works recovers actual costs incurred for encroachment permits, it should also recover the actual administrative and inspection costs incurred when performing the sidewalk repair for a property owner.

[7] Public Works stated that approximately 130 encroachment/excavation permits are issued annually. Of these, approximately 40 were for sidewalk repairs.

The Fire Department's Fire Development Services Unit also recovers actual costs it incurs. Fire Development Services provides inspection and plan review of all new, repaired, or replaced of fire protection systems requiring a building permit, such as a fire sprinkler system. The Fire Department charges three types of fees for each review: an administrative fee, fire plan review fee, and fire inspection fee. The administrative fee is a flat amount of $154 and is intended to cover administrative costs such as the intake of plans and scheduling of project inspections. The fire plan review fee is $140 per hour and is intended to recover actual costs associated with time spent reviewing project plans. Lastly, the fire inspection fee is $0.038 per square foot and is intended to recover fire inspection costs.

Given the current backlog of sidewalk repairs, recovering the actual cost of inspections could help the Public Works in reducing or eliminating the backlog. City Code allows Public Works to recover the actual costs it incurs for administering and inspecting sidewalk repairs, and the practice of recovering actual costs is common in other City departments. We estimate that Public Works could have recovered more than $300,000 in fiscal year 2013 if it charged for actual costs incurred. In our opinion, Public Works should take steps to recover the actual costs incurred for sidewalk repairs.

RECOMMENDATION:

We recommend that the Department of Public Works:

5. **Consider adjusting fees to recover the actual costs incurred for sidewalk repair.**

Public Works would benefit from the ability to monitor the cost recovery of sidewalk repair

As owner of the sidewalk repair process, Public Works is responsible for the full cycle of sidewalk repair, including cost recovery. However, during our review we found that once Public Works bills the property owner for the sidewalk repair, it stops tracking the debt to the City and maintains a hands-off approach to the Finance Department's collection activities. In fact, we found that Public Works had limited knowledge of what standards the Department of Finance used to determine owner-eligibility for a lengthy payment plan, what percentage of owners were approved,

However, during our review we found that once Public Works bills the property owner for the sidewalk repair, it stops tracking the debt to the City and maintains a hands-off approach to the Finance Department's collection activities.

and other key factors that could potentially lengthen the amount of time the City may be involved collecting for an individual repair.

Public Works does not currently have a process to track the success of recovering repair costs from property owners. Approximately one third of the payments received for sidewalk repairs are for work performed in previous years. Specifically, in fiscal year 2012, Public Works received over $1.6 million for residential sidewalk repairs, which included approximately $540,000 for work completed in previous years. Similarly, in fiscal year 2013 Public Works received over $1.8 million for repairs, of which approximately $700,000 was for work completed in previous years.

Collection of sidewalk repair payments can be challenging and often takes more than a year. We sampled 20 sidewalk repairs for which the Finance Department granted a payment plan to the property owner. In on our testing, the longest payment plan we sampled was five years.

A full understanding of the reimbursements received annually could benefit Public Works in determining how much to budget each year. For example, in fiscal years 2012 and 2013, Public Works experienced challenges with fully reimbursing the General Fund. As a result, Public Works reallocated unused funding from other divisions to reimburse the General Fund. Halfway through fiscal year 2014, Public Works addressed this pattern of deficit by increasing the budgeted Measure A funding by $500,000.

Public Works' lack of involvement in monitoring of collections for sidewalk repairs hinders its ability to ensure all aspects of the program are operating efficiently and effectively. Public Works must take a more active role in monitoring collections for sidewalk repairs and identify metrics to monitor the entire sidewalk repair process. If Public Works monitored the entire process, it could better adjust and plan for the variability that is inherent in the sidewalk repair reimbursement process.

RECOMMENDATION

We recommend that the Department of Public Works:

6. **Create a monitoring method for the City's sidewalk repair collection efforts. Once the method is in place, evaluate efficiency opportunities on a regular basis.**

Public Works has not established criteria for temporary sidewalk repairs

Temporary sidewalk repairs are used to mitigate defective sidewalks until a permanent repair can be completed. However, Public Works does not provide its inspectors with criteria for temporary sidewalk repairs. Instead, inspectors must use professional judgment in deciding whether a temporary repair is needed. Not establishing appropriate criteria for these types of repairs creates a risk that a defective sidewalk is not mitigated consistently.

Temporary sidewalk repairs are used to mitigate defective sidewalks until a permanent repair can be completed.

It is Public Works' goal to complete temporary repairs within three days of the initial inspection. Currently, Public Works uses asphalt ramping to temporarily repair vertical sidewalk defects. For example, asphalt ramping may be used when a section of sidewalk is lifted above the adjacent section. Exhibit 3 below shows an example of asphalt ramping.

Exhibit 3 – Temporary Asphalt Ramp

Source: Auditor photograph

This type of repair is temporary, and does not address the cause of the sidewalk defect, such as a tree root growing under the sidewalk. Asphalt ramps typically are effective for several weeks. Public Works has not established criteria for asphalt ramping, but recognizes the need and plans to establish criteria in the coming months.

In our opinion, it is important that the criteria for determining when and how to perform a temporary repair should be communicated clearly to inspection staff and applied consistently. Public Works should finish developing and implementing these criteria.

RECOMMENDATION:

We recommend that the Department of Public Works:

7. **Create a policy and procedure outlining the criteria for temporary sidewalk repairs.**

Finding 4: Public Works Could Benefit From Leveraging the Use of the 7i System

Public Works is not taking advantage of all the efficiencies created by using an electronic project management system. For example, the data entry required for the billing of property owners is currently performed manually. This process could be automated to save both time and money. Other opportunities for efficiencies include:

- Better documentation of inspector notes;
- Using geographical data to analyze and manage repairs; and
- Using automated alerts to monitor important repair process dates.

By addressing these areas, Public Works can better leverage its current use of the 7i system.

More efficient billing data entry

It is in the City's best interest to issue billing invoices in a timely manner. Public Works bills property owners for sidewalk repairs once completed. The sooner a property owner is billed, the sooner the City may be reimbursed. Delays in delivering bills to property owners can ultimately impact the City's ability to collect payment.

Each month a Public Works employee manually enters all the bills for completed sidewalk repairs into the City's accounting and payroll system called eCAPS.

Public Works does not always immediately send invoices to the property owner upon completion of a sidewalk repair. Public Works processes invoices to property owners once per month. Each month a Public Works employee manually enters all the bills for completed sidewalk repairs into the City's accounting and payroll system called eCAPS. We sampled 30 sidewalk repairs and did not identify data entry errors.

The 7i system currently has the ability to electronically transmit information to eCAPS. For example, currently the billing information for Animal Care Services is electronically extracted from 7i and imported into eCAPS using a text file. This method might also be a solution for sidewalk repair billing. In addition, the Department of General Services records employee time in 7i and transmits this data biweekly to eCAPS for payroll purposes. This process only takes a few minutes to complete. Therefore, it seems feasible that the entry of sidewalk repair billing information could also be automated and save time.

To provide perspective on the potential efficiency gains associated with automating this process, we estimated the annual number of hours needed for entering sidewalk repair bills into the 7i system. Through discussion with the staff that performs the data entry, we estimate approximately 50 hours a month is required for processing the billing of sidewalk repairs. This equates to approximately 600 hours a year.

We met with the Information Technology (IT) Department to discuss the possibility of automating the billing process. The IT Department acknowledged the need and agreed to begin development as soon as possible. In our opinion, Public Works should continue to work with the IT Department to automate the billing process.

RECOMMENDATION

We recommend that the Department of Public Works:

8. **Work with the Information Technology Department to automate the billing process for sidewalk repairs.**

Sidewalk repair documentation could be improved

Public Works could better assess inspector performance if it required the recording of standardized information for each sidewalk repair. Given some of the sidewalk repair process milestones, Public Works should document important dates and related information. This includes:

- The date of the initial inspection;
- The date the temporary repair was completed (if any);
- The date of response from the property owner;
- The date the repair was completed (either contractor or P/O);
- The date of the final inspection;
- Any notable reasons for delays in completing the work, such as extensions given to property owners;
- The date the property owner was billed; and
- The date the payment was received (including information on payment plans).

Such information is valuable in assessing performance. For example, it is Public Works' goal to complete initial inspections within 72 hours of receiving a sidewalk repair complaint. However, Public Works does not document the date the initial inspection was completed in the 7i system. In order for us to determine this date during our testing, we reviewed

inspection photographs stored outside the 7i system. This date is important in assessing whether inspectors are meeting the 72-hour goal.

Further, it is not common for inspectors to note the reasons for delays of sidewalk repairs. For example, we reviewed 30 work orders older than six months. Public Works informed us that in some of these work orders, extensions were given to property owners who were performing the repairs on their own. The comments in the 7i system do not contain any information that an extension was given, why it was given, or for how long. Public Works can more effectively manage sidewalk repairs with this information.

If milestone dates were recorded in separate unique fields of the 7i system, it would be possible for Public Works to run metrics on both individual inspectors as well as the entire sidewalk repair process. This would allow Public Works to better assess if inspectors are meeting performance goals and if the overall program is functioning properly. In our opinion, Public Works should make the necessary changes to the 7i system to better document and assess inspector performance and the sidewalk repair process as a whole.

RECOMMENDATION

We recommend that the Department of Public Works:

9. **Evaluate the sidewalk repair process and determine what information should be recorded in the 7i system;**

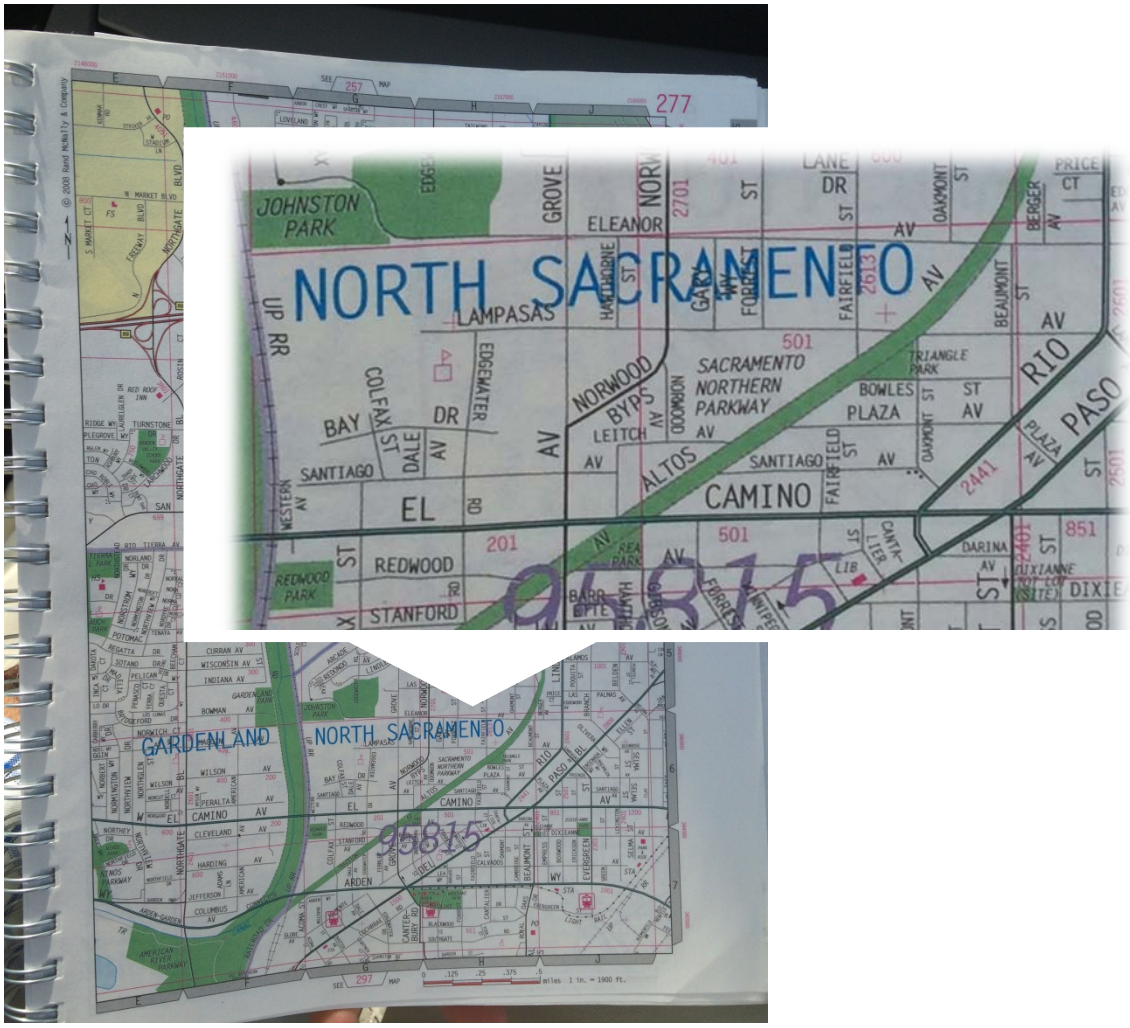
10. **Make changes to the system as necessary and establish policies and procedures for these information requirements.**

Public Works is not currently utilizing the mapping feature included in the 7i system

Currently, Public Works uses hardcopy maps for sidewalk repair planning.

Currently, Public Works uses hardcopy maps for sidewalk repair planning. Specifically, the hardcopy maps are used in evaluating when approximately a month's worth of repairs have collected in a geographical area. Although the maps allow sidewalk repairs to be grouped in an area, it does not have the ability to show repairs on a citywide map. Exhibit 4 on the following page is a photo of the map currently used by Public Works. However, the 7i system has the ability to plot sidewalk repairs on a citywide map.

Exhibit 4 – Example of Hardcopy Map Currently Used by Public Works



Source: Auditor photograph

The 7i system's mapping feature is already in use by the Urban Forestry Unit and the Traffic Signals and Street Lighting Unit of Public Works. For example, the Urban Forestry Unit uses the map feature to collect and analyze data on City trees. The map can reflect a variety of data including the location of all City trees, the age of City trees, trees that need maintenance, and locations for planting new trees. In Exhibit 5 on the next page, the top map shows trees selected for maintenance and the map on the bottom shows all trees in a given area. The Traffic Signals and Street Lighting Unit uses the 7i map for a variety of purposes, including identifying the locations of all streetlights as well as assigning maintenance crews to repairs.

Exhibit 5 – 7i System Map Views

Source: Information Technology Department

Public Works could also use the map feature to help increase the efficiency of sidewalk repairs. Some mapping possibilities that could be used as metrics by Public Works include a color-coded map based on the priority of repairs and the age of repairs, a map showing the current sidewalk repair work in progress, and historical maps showing repairs completed.

According to the IT Department, Public Works would only need to begin entering a couple of pieces of additional data during the creation of a sidewalk repair to start using the map feature. This would require a small amount of training and would not be a time consuming task. We met with both the IT Department and Public Works to discuss the use of 7i's mapping features for sidewalk repairs. Both departments agreed it would be useful in fostering efficiencies.

To illustrate, we asked the IT Department to populate a City map with the location of residential sidewalk repairs completed in fiscal year 2013[8]. The map reflects the number of repairs in 2,000-foot radiuses and summarizes the number of repairs within each City council district in the legend.

In our opinion, a citywide map would benefit Public Works in analyzing overall repair needs and efficiently assigning repairs to contractors. Public Works should work with the IT Department to begin using the mapping feature of 7i and create metrics for analyzing the sidewalk repair process.

RECOMMENDATION

We recommend that the Department of Public Works:

11. **Work with the City's Information Technology Department to implement the use of the 7i system's mapping function.**

Public Works does not utilize the 7i system's auto alerts

The 7i system has the ability to provide automated alerts for important sidewalk repair notifications. However, we found that the 7i system is not currently setup with these automated alerts. Receiving automatic alerts would help ensure Public Works quickly identifies potential defective sidewalks and more efficiently identify and address overdue responses from property owners.

According to Public Works, a prior version of the 7i system would highlight potential important repairs. The 7i system would specifically identify the repair as high priority so Public Works could easily prioritize repairs. In addition, Public Works was automatically notified when a property owner's response was overdue for 30 and 60-day notifications. The 7i system would automatically create a listing of the overdue property

[8] See Appendix A for the map of sidewalk repairs.

owner notifications. Public Works used this listing to more efficiently identify and address priority repairs. However, both functions were lost several years ago in a 7i system upgrade. Public Works asked the IT Department's 7i administrators to reprogram alerts into the system, but they have not been able to reinstate these functions.

In our opinion, Public Works needs to be aware of high priority repairs as well as overdue notifications as soon as possible. Public Works should work with the IT Department to reestablish the automated alerts.

RECOMMENDATION

We recommend that the Department of Public Works:

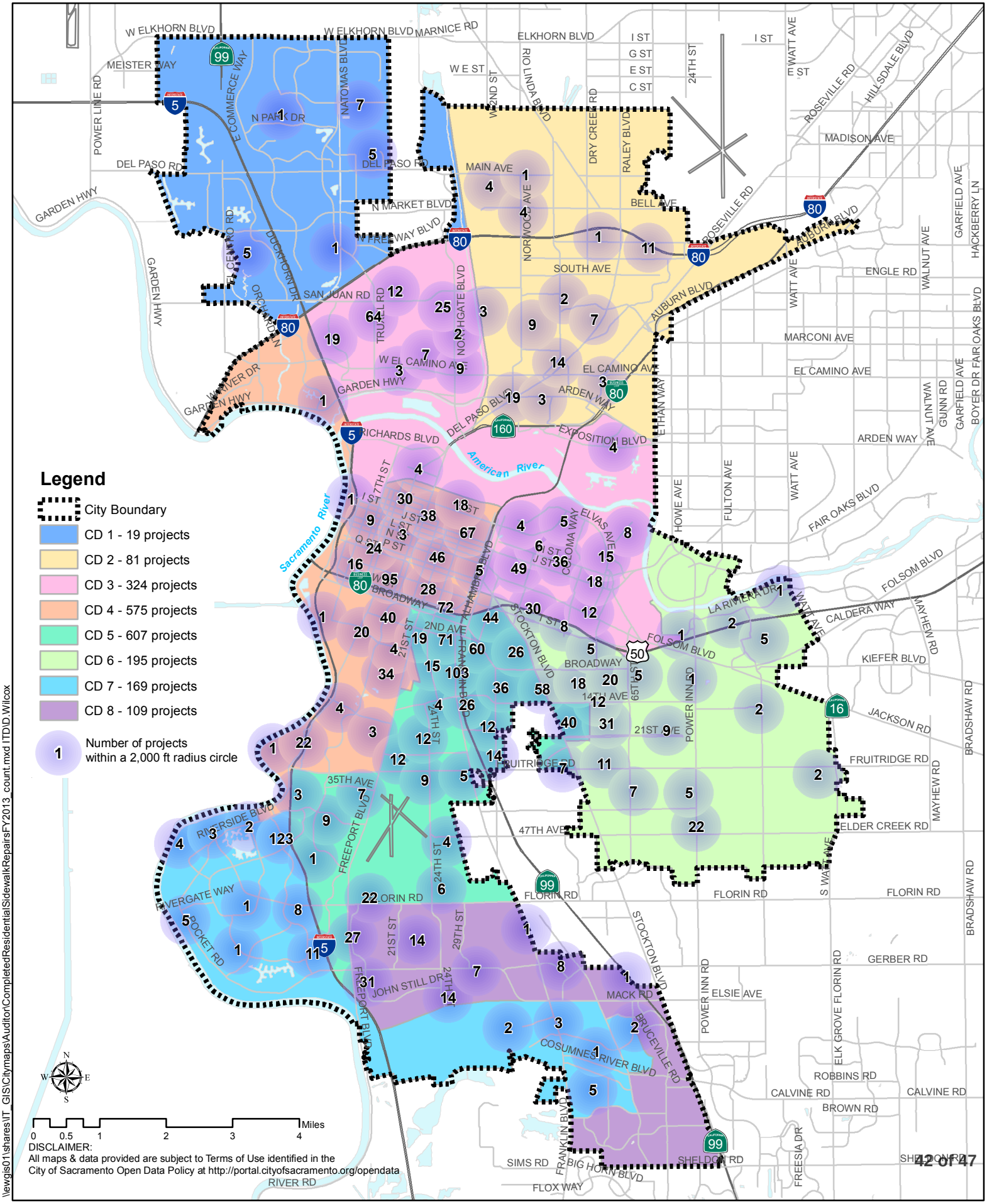
12. **Work with the IT Department to reestablish the automated alerts.**

Appendix: City Maps of Sidewalk Repairs

Currently, Public Works uses hardcopy maps for sidewalk repair planning. Specifically, the hardcopy maps are used in evaluating when approximately a month's worth of repairs have collected in a geographical area. Although the maps allow sidewalk repairs to be grouped in an area, it does not have the ability to show repairs on a citywide map. A citywide map would benefit Public Works in analyzing overall repair needs and efficiently assigning repairs to contractors. To illustrate, we asked the Information Technology (IT) Department to populate a City map with the location of residential sidewalk repairs completed in fiscal year 2013 as well as the sidewalk repairs we identified as part of the City's backlog as of June 2014. These maps reflect the number of repairs in 2,000-foot radiuses. The legend shows the number of projects in each City council district.

City of SACRAMENTO
Office of the City Auditor

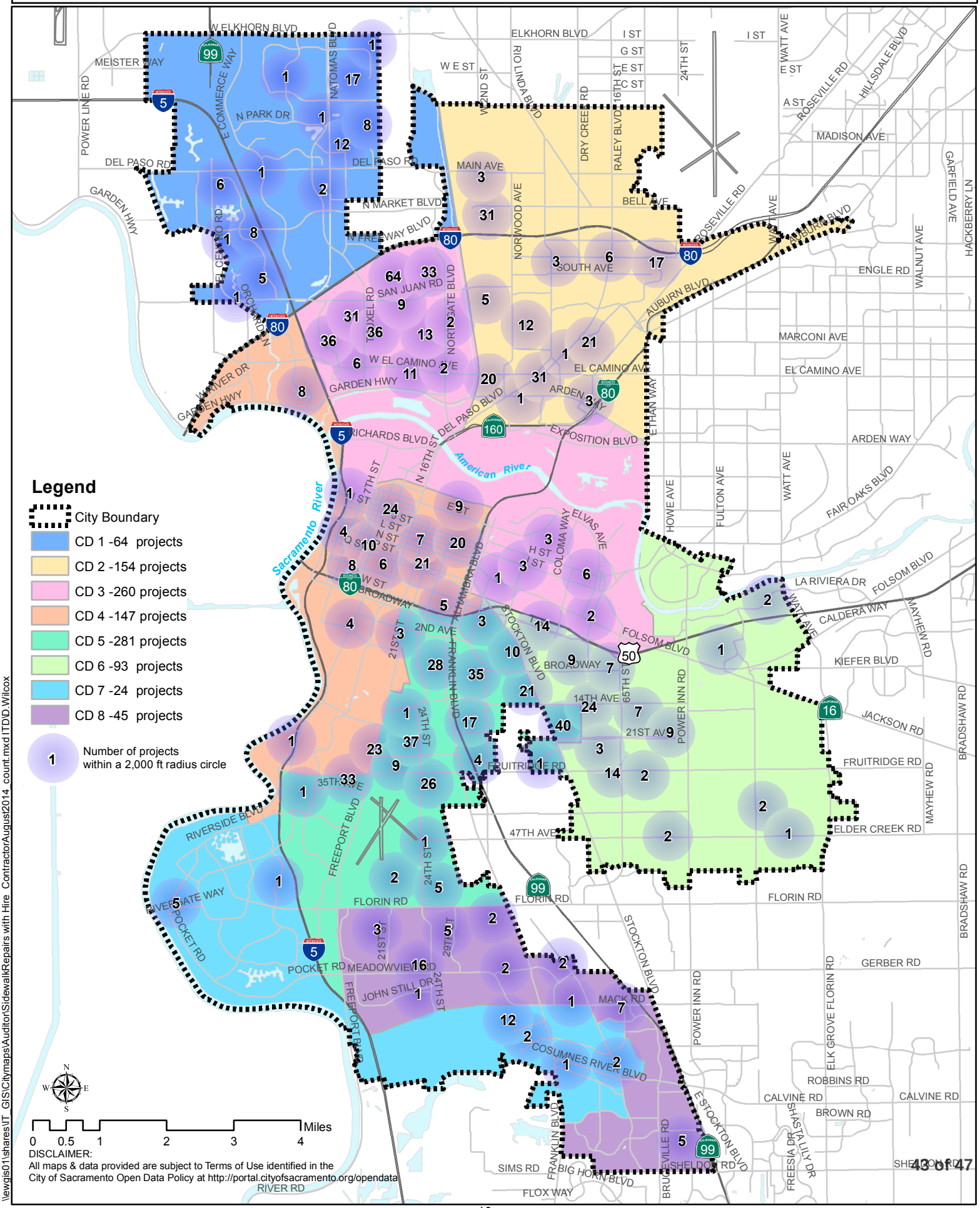
Figure A1: Sidewalk Repairs Completed in Fiscal Year 2013



\\ewgis01\shares\IT_GIS\Citymaps\Auditor\CompletedResidentialSidewalkRepairsFY2013_count.mxd ITD\D.Wilcox

City of SACRAMENTO
Office of the City Auditor

Figure A2: Sidewalk Repairs Identified as Part of the City's Backlog as of June 2014



\\ewgis01\shares\IT_GIS\Citymaps\Auditor\SidewalkRepairs with Hire_ContractorAugust2014_count.mxd ITDD.Wilcox

City of
SACRAMENTO
Department of Public Works

Jerry Way
Director

City Hall
915 I Street, 2nd Floor
Sacramento, CA 95814-2604
916-808-7100

MEMORANDUM

Date: October 20, 2014

To: Jorge Oseguera, City Auditor
Nicholas Cline, Senior Auditor

From: Jerry Way, Director of Public Works

SUBJECT: RESPONSE TO AUDIT OF THE CITY'S SIDEWALK REPAIR PROCESS

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1. This memorandum is in response to the City Auditor's November 2014 Audit of the City's Sidewalk Repair Process (Report No. 2014-04).

2. The Public Works Department acknowledges receipt and concurs with the recommendations from the City Auditor's report.

3. Corrective actions are being taken, and new policies and procedures are in development and under review.

4. I would like to take this opportunity to thank the City Auditor and staff for their efforts in identifying the process improvements indicated in the audit report. Please do not hesitate to contact me directly should you have any questions.

5. Below, please find the department's response to the 12 audit recommendations identified in the report.

1. CONTINUE EFFORTS TO REDUCE THE BACKLOG, MEET THE 72-HOUR INSPECTION GOAL AND CONSISTENTLY BILL PROPERTY OWNERS.

RESPONSE: Public Works will continue to consistently bill property owners as was noted in the City Auditor's report. Furthermore, Public Works will continue to improve its goal of completing first inspections within a 72 hour window by developing and utilizing the software changes outlined in response to Recommendation 9. Finally, Public Works will continue to actively work to reduce backlog, and expects to bring backlog down to one year within the next two months. The ultimate goal will be to complete work orders within six months of the date that the complaint was originally reported, with the assumption that budget augmentation will allow for this.

2. EVALUATE THE SIDEWALK REPAIR PROGRAMS OF OTHER LOCAL GOVERNMENTS AND DETERMINE IF THE CITY WOULD BENEFIT FROM PURSUING SIMILAR STRATEGIES.

RESPONSE: Public Works continues to evaluate the sidewalk programs of other government entities to determine whether their practices could potentially lead to

RESPONSE: Public Works continues to evaluate the sidewalk programs of other government entities to determine whether their practices could potentially lead to improvements within its own program. We do note, however, that many cities have come to us in the past for advice and direction as to how to improve their programs, and have implemented programs designed on our current model. Additionally, Public Works will continue to evaluate new materials and technological advances that can be used to improve the sidewalk program.

3. EVALUATE WHETHER THE FUNDING INCREASE FOR NON-BILLABLE REPAIRS WAS SUFFICIENT TO COVER ALL ASSOCIATED COSTS AND MAKE ANY CHANGES IDENTIFIED DURING THE EVALUATION.

RESPONSE: Public Works will continue to evaluate the finances of past years in order improve future estimates of billable repairs, and in doing so will be equipped to adjust allocated costs and budgeting accordingly.

4. CONTINUE TO WORK TOWARDS REDUCING THE BACKLOG OF SIDEWALK REPAIRS TO SIX MONTHS.

RESPONSE: Public Works will continue to work towards its goal of reducing backlog, as indicated in its response to Recommendation 1, above. It does note, however, that an increase in budget would be the largest contribution towards the success of efforts to create more efficient process. As stated in response to Recommendation 3, Public Works will use its analysis of past year finances to develop and modify its proposed future budget.

5. CONSIDER ADJUSTING FEES TO RECOVER THE ACTUAL COSTS INCURRED FOR SIDEWALK REPAIR.

RESPONSE: Public Works will take into consideration the findings regarding cost recovery indicated in the City Auditor's report. It does note, however, that in addition to the goal of full fee recovery, it does take into consideration the increased financial burden that raising administrative fees would put on property owners. Public Works propones its low administrative fees are a form of cost sharing with property owners, rather than an oversight in fee collection. If, after analysis, it should be determined that fee adjustment would result in savings to the City without being unduly burdensome to property owners, then Public Works will consider the policy implications of making such modifications to the program.

6. CREATE A MONITORING METHOD FOR THE CITY'S SIDEWALK REPAIR COLLECTION EFFORTS. ONCE THE METHOD IS IN PLACE, EVALUATE EFFICIENCY OPPORTUNITIES ON A REGULAR BASIS.

RESPONSE: After final inspection, and a bill for the contractors work is sent to the customer, the sidewalk claim is no longer within Public Works' realm of control. Oversight of the claim is then shifted to Revenue. By reason of the realignment of responsibility, Public Works will work with Revenue to identify and resolve inefficiencies, institute improvements, and research innovative ways to oversee the collection processes implemented with regards to Sidewalk Program. Furthermore, Public Works looks to Revenue for guidance in determining the best method for obtaining simple, easily readable reports to monitor revenue activity related to the Sidewalk Program.

7. CREATE A POLICY AND PROCEDURE OUTLINING THE CRITERIA FOR TEMPORARY SIDEWALK REPAIRS.

RESPONSE: Public Works will clarify and better define the criteria currently used to evaluate the efficacy and ultimate utilization of temporary sidewalk repairs, and through this appraisal seeks to enumerate enhanced assessment techniques. It is estimated that updated evaluation standards will be ready for review within the next six months, at which time the policy implications of such changes will be ripe for consideration. Public Works notes that all temporary repairs are eventually replaced by permanent sidewalk repairs.

8. WORK WITH THE INFORMATION TECHNOLOGY DEPARTMENT TO AUTOMATE THE BILLING PROCESS FOR SIDEWALK REPAIRS.

RESPONSE: Public Works will continue to work with the Information Technology Department to determine the most efficient methods of automating billing procedures, and developing methods of interfacing applications so as to eliminate the need for duplicate data entry.

9. EVALUATE THE SIDEWALK REPAIR PROCESS AND DETERMINE WHAT INFORMATION SHOULD BE RECORDED IN THE 7I SYSTEM.

RESPONSE: Public Works will take the results of the City Auditor's report into consideration as it determines specific information that should be recorded into 7i to promote efficiency and improve current processes. Moreover, Public Works will look to the Information Technology Department to develop and implement software revisions which allow for the capture of the data specified in the City Auditor's report.

10. MAKE CHANGES TO THE SYSTEM AS NECESSARY AND ESTABLISH POLICIES AND PROCEDURES FOR THESE INFORMATION REQUIREMENTS.

RESPONSE: Public Works will work with the Information Technology Department as discussed in response to Recommendation 9, and will develop corresponding policies and procedures to ensure that such information is correctly input and maintained by inspectors when additional fields are incorporated into the 7i system.

11. WORK WITH THE CITY'S INFORMATION TECHNOLOGY DEPARTMENT TO IMPLEMENT THE USE OF THE 7I SYSTEM'S MAPPING FUNCTION.

RESPONSE: Public Works will continue to work with the Information Technology Department to determine how mapping techniques can help to improve delivery process and functionality and monitoring of the Sidewalk Program.

12. WORK WITH THE IT DEPARTMENT TO REESTABLISH THE AUTOMATED ALERTS.

RESPONSE: Public Works will follow up with its request to the Information Technology Department that automated alerts and automatically generated claim status reports be reinstituted and provided to the Operations General Supervisor for the Concrete Maintenance Section.

The Public Work's Department thanks the City Auditor for the opportunity to provide these responses, and invites the City Auditor to contact us with any questions.

Cc: John F. Shirey, City Manager
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GS/ET:dh