CITY OF
HAYWARD
HEART OF THE BAY

US #3

DATE: December 16, 2008

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Update of the City's Sidewalk Rehabilitation Program

RECOMMENDATION

That Council reviews and comments on the update to the City's Sidewalk Rehabilitation Program.

SUMMARY

Staff is providing an update to the City's Sidewalk Rehabilitation Program policy that will include the status of the program from its inception to the present; the use of the Precision Concrete Saw Cut Method for the removal of sidewalk tripping hazards; and a tree-removal policy for sidewalk concrete repairs that will limit tree removal only to those situations where a tree is diseased, poses an imminent danger to the public, and/or there is no other means of installing the sidewalk improvements without removing the tree. Staff is also proposing an increase to the sidewalk repair fee charged to residents from $425 to $550, and to begin testing the use of rubber sidewalks in the City of Hayward.

BACKGROUND

On October 10, 2000, the City Council approved a new Sidewalk Rehabilitation Policy. Under this policy:

- The City is divided into ten (10) districts (see attached map), with concrete sidewalk repairs made in one or two districts at a time, each year, as funds allow;
- Sidewalk repairs are focused on the worst block faces with the greatest sidewalk displacements caused by trees;
- Trees whose roots have displaced sidewalks are removed at the block where repairs are made; and
- Residents pay a flat fee of $425 per single-family property to have repairs made in front of their properties. Residents may choose to hire their own contractors to do the repairs and not pay the fee. Multi-family units pay $425 per damaged location.

Although repair of damaged sidewalk, curb, and gutter is the responsibility of the adjacent property owner per Section 5610 of the Streets and Highways Code, the Council (as part of the sidewalk policy) authorized staff to make repairs for property owners who requested it for a fee of $425 per location. The actual cost for a typical repair ranges from $2,000 to $2,500. The

$425 fee was chosen to be approximately similar to the average payment under the prior, voluntary program, where property owners paid only 50 percent of the concrete cost and none of the tree root pruning, tree removal or administrative costs. It also recognizes that despite what is in the Streets and Highways Code, many Cities do not charge for such sidewalk repairs and most of the damage is due to City-planted street trees. The $425 fee established with the first sidewalk rehabilitation project under the new policy in 2001 has not been adjusted since then.

Since adoption of the above mentioned policy through FY08, 1,871 sidewalk locations have been repaired at a cost of $5,979,000; a total of $694,000 has been recovered from the sidewalk repair fees collected. In addition, 660 new wheelchair ramps have been installed to current American with Disabilities Act (ADA) standards, at a total cost of $1,023,500.

DISCUSSION

The current sidewalk repair program involves removing and replacing existing concrete sidewalk sections damaged or displaced by tree roots. Minor displacements of 1½ inches or less are ground down. The practical implementation of the existing sidewalk program raises some issues and concerns.

First, repairing only one side of a block face to avoid removing trees from both sides of the street results in a significant portion of repairs in a neighborhood not being completed for years, as the next year's repair program is moved to another district. Residents who observe repairs underway across the street often complain about their needed repairs not being considered. Limited funding and the ability to make repairs in only one or two districts per-year results in skipped repairs within a district that will not be addressed for another five-to-ten years, when the City returns to a district after completing the repair schedule in all ten districts.

Another result of the existing policy is that too many mature trees are being removed, resulting in significant impacts to the urban forest. Residents have complained about the removal of trees whose roots have lifted the concrete sidewalks, but are otherwise healthy. Many residents who have complained and were opposed to the tree removals have correctly argued environmental considerations and the negative consequences to overall environmental quality.

In response to resident complaints and following Council's direction, this year's Sidewalk Rehabilitation Program was implemented with a new policy of protecting trees and requiring the contractor to retain an arborist to direct work around trees with the goal of saving trees, where possible. This resulted in the removal of only three trees in the two districts for this year's project (Fairway Park and Schafer Park) compared to the original 72 trees that were scheduled for removal.

Sidewalk Repair Fees -
The original intent to have residents pay a flat fee of $425 was to subsidize the actual total cost to the City of $2,000 to $2,500 per location for the repairs. In reality, implementing this minimal fee program increases the project costs because of the extensive staff time involved in processing the individual bills. The fee processing and collection includes the following:

1. Staff inspects the districts where repairs are to be made to determine which repairs are the responsibility of residents;
2. Letters are sent to each resident asking if they wish to have the City make the repairs at the cost of $425. Residents must sign a form asking the City to make the repairs and return the form to the City.

3. Staff tracks all the locations where residents have requested repairs and, after completing the repairs, sends a billing request to the Finance Department to prepare and send invoices to those residents.
4. Residents who fail to pay their bills are taken through a collections process, which may include placing a lien on their properties.

Staff estimates that the cost for processing and collecting repair fees is close to or exceeds the $425 charged for the sidewalk repair. The recent reduction in administrative staff has added a new challenge to the fee collection; a delay in the billing and collection process or staff time taken from other tasks that bring real revenue to the City.

Staff is proposing an increase of approximately 30 percent to the sidewalk repair fee from $425 to $550. Considering there has been no increase since 2000, this is also consistent with the Consumer Price Index increase of 28 percent over the past eight years. In addition, this increase would at least cover the fee processing, other administrative costs, and some contribution to the construction; property owners would still be given the opportunity to make repairs themselves, as in the present program. If this change is acceptable, it will be incorporated in the next update of the Master Fee Schedule and will be included in notices to property owners.

Staff is also proposing modification of the current policy to emphasize the protection of trees; making sidewalk repairs with a Precision Concrete Saw Cut Method to eliminate trip-hazards, in addition to removal and replacement of damaged sidewalk sections; and concentration of repairs in whole neighborhoods, instead of on one side of a street block.

Repairing Uplifted Sidewalk Sections with the Precision Concrete Saw Cut Method - Concrete sidewalk, curb, and gutter damages that are repaired under the City's Sidewalk Rehabilitation Program are, for the most part, caused by uplifting from tree roots. The uplifted concrete sidewalk panels, which can be found in many areas throughout the City, are a tripping hazard to the public. The uplifted concrete sidewalk panels can be grouped into two general categories of sidewalk damage: (1) sidewalk damage requiring complete removal and replacement; and (2) sidewalk damage with uplifts of 1¾ inches or less, where the uplift can be eliminated by grinding or saw cutting without replacing the entire concrete panel or removing any trees (see Figure 1 below).

Figure 1a: Damage Requiring Replacement

Figure 1b: Damage Repairable with Saw Cut

The second group of uplifts can be found in as many locations throughout the City as the first group, and they are significantly cheaper to repair with a precision saw cut method, as explained below, than with the removal and replacement of the sidewalk section. Additionally, the smaller uplifts pose the most danger to pedestrians, since they are the least recognizable, especially to the elderly and children with limited depth perception. The precision concrete saw cut costs approximately $40 per tripping hazard removal. This compares with $350 per location for removal and replacement of a comparable 5-foot by 5-foot sidewalk section, not including tree root pruning, removal, and off-haul costs. Furthermore, repairing uplift with the Precision Concrete Saw Cut method does not require pruning tree roots or removing trees, which in the past, has been the greatest cost factor for each location.

Precision Concrete Saw Cut Method vs. Grinding –
Traditionally, tripping hazards resulting from concrete sidewalk offsets are eliminated by grinding down the concrete. However, the grinding method often leaves a rough finish, and the trip hazard is not completely removed (see Figure 2 below). Also, with the grinding method it is difficult, if not impossible, to meet the ADA slope requirement of 1-inch maximum vertical rise over eight inches of horizontal distance.

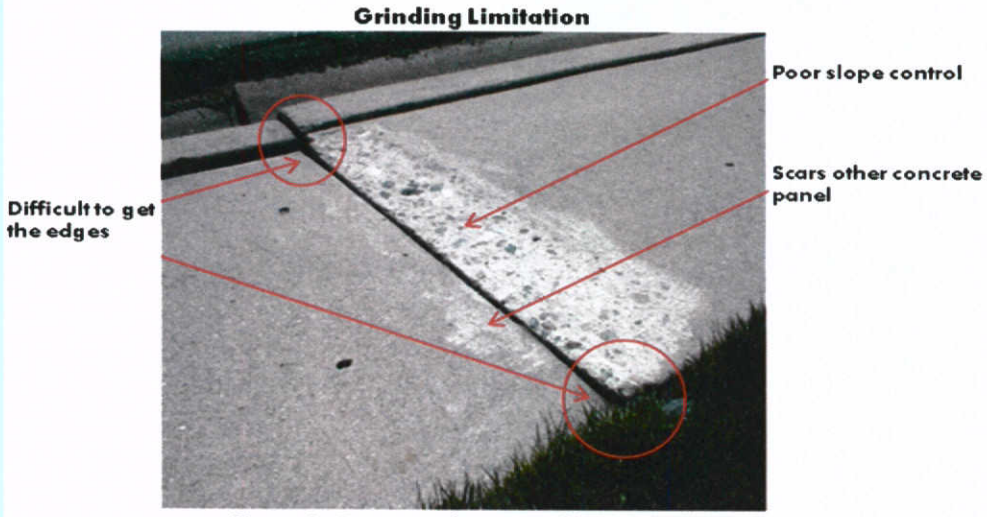

Figure 2: Trip Hazard Removed by Grinding

As mentioned above, an alternative to grinding is the Precision Concrete Saw Cut Method. This method involves cutting off the concrete offset to the ADA slope requirement by using a special saw cut machine, as illustrated with Figures 3 and 4 below.

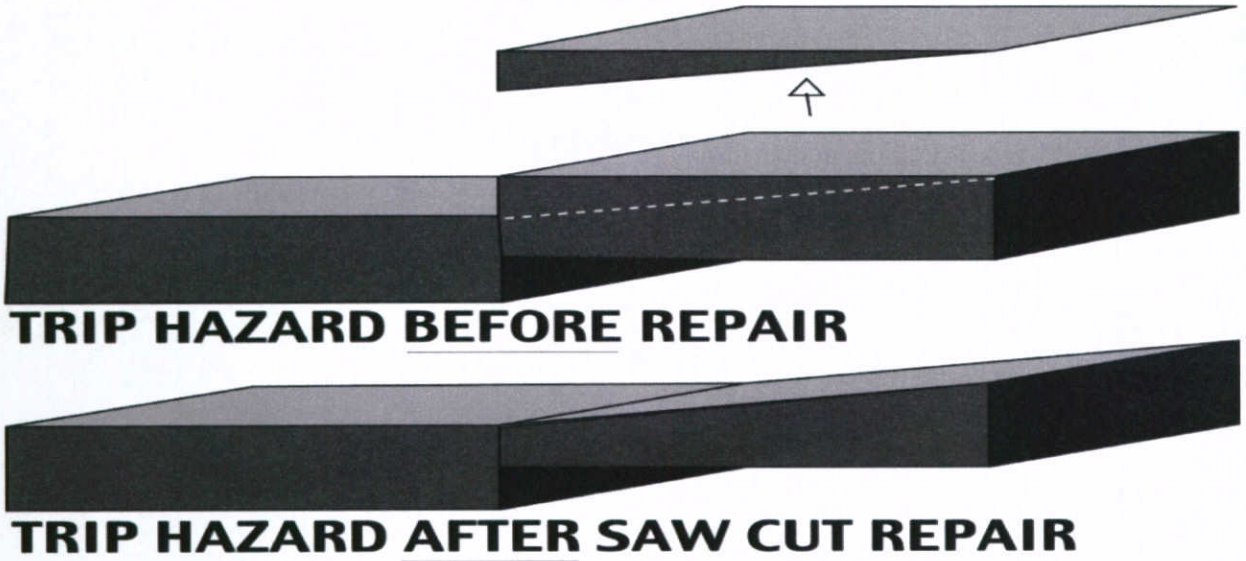

Figure 3: Sidewalk Uplift Saw Cut to ADA Specification

Figure 4: Trip Hazard Removed Completely by the Precision Concrete Saw Cut Method

The result of the Precision Concrete Saw Cut method is superior to the grinding method both aesthetically and in meeting the precise requirements of the ADA. This method for repairing uplifted sidewalks is limited to sidewalk displacements of 1¾ inches or less, and therefore will not be applicable to all sidewalk damage situations, such as the example illustrated in Figure 1a above. Also, once a sidewalk uplift has been removed by saw cut, the underlying tree roots can be expected to lift the sidewalk section again over several years. At some point in time (when more than 1 ¾ inches has been cut from the original 4-inch concrete sidewalk thickness) the sidewalk section will have to be replaced. However, the combination of making repairs by the Precision Concrete Saw Cut method and the standard removal and replacement of the sidewalk section will allow entire districts to receive one form of repair or the other. The relatively low cost of the Precision Concrete Saw Cut method will allow tripping hazards to be removed from large areas of the City. Staff is proposing that homeowners not be required to reimburse the City for repairs using the Precision Concrete Saw Cut method, which is consistent with the City's current policy with respect to grinding where no charge is made.

The implementation of the Sidewalk Rehabilitation Program with saw cut repairs will involve two phases. In Phase I, a Precision Concrete Saw Cut contractor will inspect all sidewalks in a given district to identify all damaged sidewalk locations that can be repaired with the Precision Concrete Saw Cut method. Each concrete sidewalk that is offset 1¾ inches or less shall be tapered precisely at a 1:8 slope, and shall have a smooth, uniform appearance and texture. The Phase II contractor will replace damaged sidewalks that do not lend themselves to repair by the Precision Concrete Saw Cut Method.

Protecting Trees –
Staff is proposing a policy of not removing public street trees unless the trees are diseased, pose an imminent danger to the public, and/or there are no other means of installing the sidewalk improvements. To this end, language has been included in the most recent contract specifications to require a licensed arborist to supervise the contractor's work around trees, including the root pruning. The City shall maintain an approved list of licensed arborists from which contractors may select for directing root pruning and other measures to save the trees as part of the sidewalk repair work. Other measures for protecting trees shall include the meandering of the sidewalk around the tree to avoid cutting critical root systems or bridging the sidewalk over the root system, if possible. If there is not enough room in the public right-of-way for the meandering of the sidewalk around a tree, an easement from the adjacent property owner will be necessary, and the property owner must be willing to grant the easement.

Rubber Sidewalks -
Staff has looked into the use of rubber sidewalks for replacing damaged sidewalks. Rubber sidewalks are high-density paving tiles made from recycled tire rubber combined with polyurethane binder and dye, then molded with heat under compression to produce a strong and durable rubber sidewalk panel. See Figure 5 below.

Figure 5: Rubberized Sidewalk Next to Standard Concrete Curb

Several cities in California, including Stockton, Alameda, Albany, Dublin, Berkeley, Menlo Park, and Burlingame are testing the use of the rubber sidewalk. Rubbersidewalk Inc., a manufacturer of the product, states that the initial cost of installation averages about $20 per square-foot, compared to $15 for the standard concrete sidewalk. The advantage of the rubber sidewalk is that it can be

reused when lifted by tree roots by simply lifting the rubber sidewalk panels, pruning the roots, leveling the ground, and replacing the panels. To be cost effective, large areas of the sidewalk must be replaced with the material, and individual sections of sidewalk must be large and heavy enough to discourage panels being removed and carried away.

According to Rubbersidewalk, Inc., rubber sidewalks have significant environmental benefits, including the following:

- One-square-foot of rubber sidewalks recycles waste rubber from one passenger tire
- United States disposes of 300 million passenger tires, creating 3,600 million pounds of waste rubber annually
- Rubber sidewalks are recollected and recycled at the end of their life cycle and the material used again

Staff is proposing testing the use of the rubber sidewalk and using the material in the City whenever possible.

FISCAL AND ECONOMIC IMPACT

There is no fiscal impact to the CIP budget. Staff proposes allocating up to $200,000 of the $900,000 Sidewalk Rehabilitation budget each year for removing tripping hazards by the Precision Concrete Saw Cut Method. The remaining budget will be used for the removal and replacement of damaged sidewalk, curb, and gutter sections with standard concrete or rubber sidewalks, where applicable, and where the damage cannot be repaired with the Precision Concrete Saw Cut Method. Historically, the $425 fee has resulted in recovery of, approximately, only eleven (11) percent of each annual sidewalk rehabilitation project. Increasing the fee to $550 will offset the administrative cost and be equivalent to the Consumer Price Index increase over the past eight years. As noted previously, it is anticipated that more locations will be repaired with the same funding with the introduction of the precision concrete saw cut method and small increase to the fee.

PUBLIC CONTACT

Residents who have contacted staff and Council about the removal of trees have been advised that the City will be implementing a new policy that will minimize tree removals. Once a project is initiated, residents in the affected district will be notified of the pending program.

Prepared by:

Morad Fakhrai, Deputy Director of Public Works

Recommended by:

Robert A. Bauman, Director of Public Works

Approved by:

Gregory T. Jones, City Manager