

## A New Way to Protect Urban Trees and Pedestrians

In the past, street trees planted within confined sidewalk planters were installed with a cast iron grate. The grate was meant to provide a level surface over the tree roots while allowing water to enter the planter through the grate. The grate would prevent pedestrian traffic from tripping over tree roots and the tree roots would also be protected from damage.

Tree grates come in many configurations but almost always in two halves. The grate rests inside of a frame that is set within the concrete sidewalk. As the tree matures, the trunk outgrows the opening of the grate, lifting one or both halves of the grate, creating an uneven, dangerous surface.



Tree lifts one side of a grate creating a trip and fall hazard. Photo by [localecologist.blogspot.com](http://localecologist.blogspot.com)



A tree planter with Safe Path product replaces cast iron tree grate. Photo provide by Blue Drop, Inc.

Recently, I had to the opportunity to meet with Mr. Christian Rodriguez, who introduced me to a new product called Safe Path, manufactured by Blue Drop, Inc. Safe Path is a new system meant to replace cast iron tree grates. It is a poured in place product that fills and levels a recessed tree planter with a permeable synthetic material. The rubberized product is available in several attractive finish coating.

In the interests of full disclosure, I have no connection or financial interests in

Blue Drop Inc., or any of their products. I have consulted as a certified arborist expert witness for a pedestrian trip and fall case involving a tree grate. As an arborist, it has always bothered me seeing trees damaged as they outgrew the tree grate installed to meant to protect them.

We met at a downtown San Diego area location where Blue Drop had a contract with the city to replace old tree grates with their new Safe Path system. Many of the

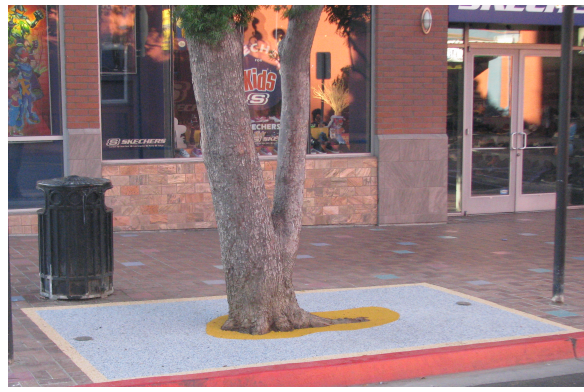


A downtown street tree trunk being girdled by a iron grate.

street trees had outgrown the old cast iron grates in the downtown area and the city was looking for a new product to replace the older tree grate system.



**Old grate and sidewalk removed, planter is prepped for Safe Path. Photo by Blue Drop**



**Safe Path permeable system installed replacing the old tree grate. Photo by Blue Drop**

The Safe Path system replaces the inflexibility of cast iron by using a poured in place, rubberized permeable material. Because it is a poured in place product, it is very adaptable to a variety of custom situations.



**Safe Path installed in diamond planter configuration. Photo by Blue Drop**

Tree planters in concrete sidewalks no longer have to be identical size dimensions, making this an ideal product for retrofit projects. Existing planter areas can be enlarged to accommodate larger size trees or adapted to the site situation.

I was concerned about the possibility of chemical toxicity leaching from the product. Mr. Rodriguez stated there had been no evidence of toxicity leaching from the product. The product has been successfully installed and maintained in many public and private locations with differing tree and palm species

without any problem associated with tree health.

A great advantage of the Safe Path system over cast iron tree grates is its ability to adapt to the growth of the tree trunk. Since trees produce variable surface roots and trunk shapes, this product allows for custom installation around surface roots or root collars that normally interfere with cast iron grates. When the tree trunk or root collar enlarge, the product cracks around the



**Safe Path installed around tree collar and surface roots. Photo by Blue Drop**





trunk and can be easily cut away and mended.

This appears to be a win-win product, good for the tree, pedestrians and maintenance workers. The product protects tree roots, provides an attractive, durable, level, permeable surface safe for pedestrian use that is easy to maintain. Hopefully, the product holds up under the rigors of use and maintenance. The product is relatively new so it will take a few years of use to make a full assessment.

For more product information visit <http://www.thebluedrop.com/products/safe-path>. Learn more about Rappoport Development Consulting Services LLC and certified arborist Jeremy Rappoport at <http://landscapeexpertwitness.com/>