

PHB TechBullet #12

Case Study: Winter Park Streetscapes

A new concept in traffic calming

The idea to rebrick the city streets of Winter Park, FL—an upscale city known for its mansions, lakes and fine shops just north of Orlando—began in 1996. As engineers started work on a streetscape project to restore the main street, Park Avenue, they uncovered bricks under the asphalt that were more than 80 years old and they decided to use them as the new paving material for the street.

“We wanted to bring Park Avenue back to its original glory and make it as historically accurate as possible,” said Jim English, then director of public works for Winter Park. The streetscape project included a 10-block area with new sidewalks, landscaping and the “new” brick street.



Park Avenue-Winter Park, FL

The street was such a hit with residents that they began campaigning to have their neighborhood streets repaved in recycled brick. After the first streets were re-done, Winter Park found that brick streets raised surrounding property values 15 to 25 percent plus an unexpected benefit: traffic calming.

Residential Traffic Calming

Winter Park, like many other suburbs of a large city, found cut-through traffic to be a major problem particularly through residential neighborhoods with pedestrian traffic. On one major residential street, Pennsylvania Avenue, anticipated cut-through traffic expected to double to about 18,000 cars per day after the completion of a bordering residential area that used to be an old Navel station.



Typical methods for controlling excessive residential speed include a series of speed bumps/speed humps or bump-outs that serve as a “silent policeman” to slow traffic and Winter Park had mixed results with these types of measures. While effective at slowing overall speed, there are drawbacks to geometric design features including the impediment of emergency vehicles, uneven traffic flow (speeding up/slowing down) and aesthetic concerns.

Looking for an answer, the city discovered a bonus of the new brick streets—they make drivers slow down. Because the reclaimed bricks are uneven, they produce a rough sound as cars ride over them, and cause drivers to reduce their speed. This helped to curb the problem of cut-through traffic from two major highways that border Winter Park.

Uneven Bricks=Traffic Calming



New Traffic Calming Clay Pavers

Winter Park City Engineer, Troy Attaway, noted that traffic decreased on one of the main brick streets by 29% from 8500 to 6000 cars per day with a corresponding drop in average speed to 29mph from 41mph after bricking. “It’s hard to believe but the uneven bricks work better than speed bumps,” Attaway said.

One Problem: Brick Supply

Because recycled pavers are hard to come by, the city had to use some new pavers in the process. But, the new pavers were just too smooth. The city needed the recycled brick but could not find enough. When city officials were able to find harvested brick from other sources, it was prohibitively expensive. “The recycled bricks ranged in price from \$3 to \$5 a piece,” said Attaway.

“What Winter Park needed were new clay pavers of various heights with a rich, dark color to match the old bricks,” said Tom Harwood, an Orlando area brick distributor. “I knew the best thing to do was to go directly to Pine Hall Brick and see if they could help us.” Pine Hall Brick is the nation’s largest supplier of clay pavers.

Pine Hall Brick considers itself an expert in making clay bricks that are uniform in size. “They wanted us to make clay pavers in varying thickness,” said Fletcher Steele, president of Pine Hall Brick. “This was a new concept for us. We take great pride in making uniform brick.”

Pine Hall Brick agreed to alter its manufacturing process to make the bricks irregular and worked on creating a darker colored paver to match Winter Park’s harvested brick. The result was pavers that varied in thickness from 2 1/2 inches to almost 3 inches. The standard vehicular paver is 2 3/4 inches thick.

Pine Hall Brick was also able to formulate a new color to match Winter Park’s old brick called Autumn. The color is now part Pine Hall Brick’s regular offerings. “But we don’t offer the irregular thickness size as part of our standard line, said Steele. “Although, we would be happy to accommodate other communities or larger size commercial projects if they make a special request.”



Less Cars, Lower Speeds

To date, Pine Hall brick has paved about 200,000 square feet—roughly a million pavers—in Winter Park. “And we’ve got about 200,000 more square feet waiting to be installed,” said Ted Corvey, Pine Hall Brick’s marketing director and paver business director. “In business, it’s rewarding to solve a

customer's problem and satisfy a need. It's much more rewarding when you know that your product is creating a safer environment at the same time."

Trendsetters



There is now a waiting list of Winter Park residents who want their neighborhood streets repaved in brick and because of the increase in property values, the residents agree to pay part of the cost. "If the next few years are anything like these last, we should add several more miles of brick paving to the city. The typical waiting list for a neighborhood is two to three years," Attaway said. Winter Park has bricked about 25% of its streets.

Winter Park is not alone in its quest for brick streets. *USA Today* reports that because of today's cookie-cutter style of urban development, cities and towns are looking for ways to add character and charm to their communities. While Winter Park's program is one of the most extensive street restoration programs in the nation, communities all across the country like Columbus, OH, Champaign, IL, Davenport, IA, Houston, TX and Pauls Valley, OK are now investing in history by bricking their streets.

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