

Sidewalk Replacement and Improvements Project

In addition to improved street lighting, many of the respondents in the Village's past three triennial Resident Surveys have expressed the need for improved sidewalks. The Village's Public Works Department has routinely repaired and replaced brick and concrete sidewalks over the past 3-4 summers. Chevy Chase Village has begun the transition to a more aggressive sidewalk replacement and improvement program to eliminate the many trip hazards throughout our sidewalk network. However, in order to aggressively improve the Village's sidewalks, more than in-house personnel is needed to do the job efficiently. With the help of the Village's *SafeSpeed* Program, the Village can use program revenues to fund a comprehensive sidewalk replacement and improvement program to eliminate trip hazards and increase Americans with Disabilities Act compliance.

Background

The first step in determining how to proceed with this improvement project was to determine the primary sources for the dilapidation of the existing sidewalks. Many of the Village's sidewalks have been lifted, cracked or otherwise damaged by tree roots. It was determined by the Board of Managers that the optimal material to allow proper growth of mature tree roots would be to convert all existing sidewalks to brick.

In order to select a style of brick that would meet specific standards, referenced below, but that would also be aesthetically pleasing for use throughout the Village, the Village installed ten sample sections of sidewalk, seven on the east side and three on the west side of the Village. As part of the 2009 Resident Survey, residents were asked to provide their opinion on the preferred brick/paver type installed. Based on the responses to the Resident Survey and a thorough assessment of the preferred samples, the PWC was able to make its recommendation to the Board. The recommended brick/paver type, the *Pine Hall Pathway Full Range Brick Paver*, would be safer than current brick/pavers, and as equally safe to traverse, as existing concrete sidewalks installed throughout the Village because it has:

- Greater static coefficient of friction (not as slippery when wet or dry)
- Greater compressive strength (preventing the formation of moss)
- Greater freeze/thaw value (therefore not allowing the brick to break down)

One of the defining characteristics of the Village is its lush tree canopy unfortunately; the trees often create severe trip hazards on the Village's concrete and brick/paver sidewalks. Many of the Village sidewalks that are installed using brick/pavers are installed over a concrete base that does not allow free movement of tree roots and traditional concrete sidewalks break, heave and crack under the pressure of tree roots thereby creating trip hazards. The PWC has taken all of these factors into consideration and recommended that the Village install and replace ALL existing sidewalks with the *Pine Hall Pathway Full Range Brick Paver* using a crushed stone dust base and nesting the bricks together without mortar. This would allow tree roots to freely move through the base and would make repairs to trip hazards (which would be minor) and simple to complete. The Village Public Works crews currently use this method on all of its repairs which have been very successful (please see before and after photos below).

Before:

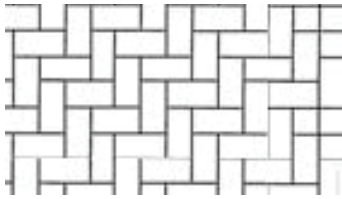


After:

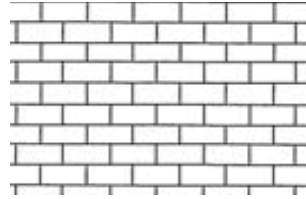


An added benefit to this type of installation is the ease of maintenance. If tree roots create a trip hazard by lifting the brick pavers, the Public Works crews could lift the affected bricks out and smooth the stone dust base around the tree root and replace the bricks. Whole sections of sidewalk would not need to be replaced; only the immediately affected pavers.

When asked to select a brick pattern for the proposed sidewalks, respondents to the Resident Survey preferred a 90 degree herringbone pattern for areas outside of the Village's historic district and the running bond pattern within the historic district. Samples of the two patterns are shown below:



90 degree herringbone



Running Bond

In order to fully understand the extent of the required repairs to the Village's sidewalks, at the direction of the Board and PWC, the Village's Director of Public Works, Jerry Lesesne, completed a full review and inventory of the Village's sidewalks. Mr. Lesesne found that over 65% of the sidewalks within the Village, both concrete and brick/paver, needed replacement due to trip hazards, moss infestation and general disrepair. Unfortunately, Mr. Lesesne found that there were long stretches of sidewalks that needed repair; however, the majority of the repairs were not concentrated in long stretches and therefore repairing these areas with the improved brick paver would not create a cohesive aesthetic.

Next Steps

As a result of all the factors noted above and generated by responses to the Resident Survey, the PWC recommended at the May 10, 2010 Board meeting the following:

- use of the *Pine Hall Pathway Full Range Brick Paver* throughout the Village;
- replacement of all sidewalks throughout the Village using the recommended brick paver; and
- installation of the new brick paver in a running bond pattern within the historic district and 90 degree herringbone pattern outside the historic district; and
- replacement of all sidewalks in a systematic approach over a four (4) year period, due to the magnitude of the project.

After discussion between the Board, PWC and residents, the Board voted unanimously to approve the PWC's recommendation, but using the running bond pattern throughout the Village. The Board directed staff to draft the contract and solicitation documents to begin the replacement and improvements project. The project is estimated to cost \$1.5 million over the four (4) year replacement period. The first phase in this project will begin next year.

In the interim, the Village's Public Works crews have begun and will continue to repair the worst trip hazards throughout the Village as we continue to utilize the funds generated by the *SafeSpeed* Program to make the Village a safer community for all. Please stay tuned to the Village website (www.chevy ChaseVillageMD.gov) and listserv for further updates on the project or contact Director of Municipal Operations, Michael Younes at michael.younes@montgomerycountymd.gov for more information.