



CITY OF SPRING VALLEY VILLAGE

September 6, 2016

Dear Spring Valley Resident,

Improving the quality of life is a key objective of your City Council. As noted in the attached Houston Chronicle article, the City of Spring Valley will benefit significantly from the \$12.4 million project planned by TxDOT. The primary point of this communication is to update you on the status and schedule of this much needed project. The other reason is to acknowledge the person most responsible for this making this happen. Representative Jim Murphy engaged effectively and provided the leadership and energy necessary to make this a reality. Please take the time to write Representative Murphy a note and tell him how much you appreciate his efforts.

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Sincerely,

Tom Ramsey
Mayor
Spring Valley Village

State prepares to 'cut' into traffic noise on I-10 stretch

Pavement cuts have been shown to smooth roads and reduce noise

By Dug Begley, Houston Chronicle

Perhaps for once, the phrase "TxDOT is making cuts" is good news for drivers on a stretch of Interstate 10. Following a successful test on Loop 610 of a new way to quiet freeway travel, state transportation officials and local cities are cooperating to spend \$12.4 million to make more of the so-called longitudinal cuts in the pavement along I-10 in both directions from Post Oak to east of Gessner.

The cuts - one of the primary features of the next-generation concrete surfaces, as they're called in the pavement industry - mark a new way to make roads smoother and deliver a quieter ride. Motorists indicate the new concrete is reducing noise, which can be a major issue not just for drivers but for taxpayers as well. Although expenses vary, it costs about \$3 million per mile to install sound walls and other measures around freeways to reduce noise for nearby homeowners. Quieter freeways also improve driving conditions.

"I notice when I'm on them," said Heights resident Steve Preston, who commutes along Loop 610 where the longitudinal cuts were installed last year as an attempt to quiet travel around the loop north and south of U.S. 290. "The hum goes away." The noise-reduction work on five miles of I-10 is expected to start early in 2017, TxDOT officials said, and take about eight months to complete. Most of the work will lead to nighttime and weekend lane closures.

Helping traction

Concrete highway lanes are rarely totally smooth, in order to better handle water and provide drivers better traction. After years of study, the consensus of researchers is that making the one-eighth-inch wide cuts evenly spaced along the roadway in a way that leaves detailed, clean channels is crucial to effectively keeping the surface smooth. The grooves help channel water away without tires losing traction.

It's really the surface that makes most of the difference, said Larry Scofield, director of engineering and research for the International Grooving & Grinding Association. Typically, concrete is textured on the surface so it can move water off the surface and provide traction. The new method makes a smooth surface, then cuts grooves into it for traction. "This results in the tire not having to traverse a surface which, on a micro-scale, is going up and down causing the tire to vibrate," Scofield said. "Since the resulting ... texture is smooth, it not only reduces the

tire pavement noise but also reduces tire rolling resistance, which improves gas mileage as a secondary benefit."

Federal funds related to highway improvements controlled by TxDOT will pay for 80 percent of the cost of the work. The remaining \$2.4 million bill will be split, with TxDOT paying half and five municipalities, including Houston, paying the remaining half. "Most everything else that could be done has been done," said Spring Valley Village Mayor Tom Ramsey, noting the cities are encouraged by studies that show the new pavement will reduce noise. The expansion of I-10, completed seven years ago, displaced many commercial properties along the freeway, and brought the widened highway closer to many residences. "Sometimes during the day it is quite significant," Ramsey said of the freeway noise.

Positive feedback

Officials chose to groove I-10 following the positive feedback they received about Loop 610, where the longitudinal cuts were made as part of the larger Loop 610 and U.S. 290 interchange project, said Quincy Allen, district director for TxDOT's Houston office.

That project - which stretches from I-10 to Ella along the loop - is part of ongoing research by the University of Texas at San Antonio to verify how much noise reduction the new pavement can provide.

The longitudinal cuts are not the only way some Houston-area roadways have been quieted. Asphalt repaving along U.S. 59 and Interstate 45 recently helped reduce some road noise on the freeways by providing a smoother ride. Working with Texas A&M Transportation Institute researchers, TxDOT used a higher-quality but thinner application of asphalt on the repaved segments. Though the repaving was part of routine maintenance, it has made for quieter freeway trips.

The grooves, or highway cuts, meanwhile, will be used on a case-by-case basis, said Raquelle Lewis, spokeswoman for TxDOT in Houston. Like sound walls, noise mitigation along a freeway is site-specific, she said. "It is not the plan to incorporate the treatment on any and all new pavement," she said. "As you can imagine, there are cost and resource implications that need to be evaluated. ... That said, our designers are looking at various other projects."