



CITY OF MEDINA

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Date: January 9, 2023

To: Honorable Mayor and City Council

From: Stephen R. Burns, City Manager

Subject: City Manager Report – December 2022

1. State Route 520 Expansion Joint – The University of Washington completed their final report (**Attachment 1**) on the phase 2 joint noise mitigation study and has sent it to WSDOT in late December. Professor Per Reinhall is tentatively scheduled to come give a presentation to the City Council at your March 13, 2023 City Council meeting.

I am providing the Executive Summary:

“As required in ESSB 5689, Section 219 (4), this study investigated the design and feasibility of noise mitigation strategies for installation in modular expansion joints (MEJs), with a focus on Washington state’s SR 520 bridge. The three main sources of noise from MEJs include resonance of the air within the gaps, resonance of the beams, and resonance of the tires. By filling the gaps in the MEJs with engineered chevron support structures, we showed that it is feasible to significantly reduce the noise from MEJs. We performed both experimental and computer evaluations of a noise attenuation system before performing limited testing on the SR 520 bridge.

Installation of the treatment on one westbound lane of the east MEJ of the SR 520 bridge proved to be highly effective over the two-month test period. At a distance of 160 feet, we measured a more than 70 percent reduction in audible noise over the noise of background traffic throughout the testing period. Beyond 160 feet the difference between noise from the concrete road surface and from the MEJ became so small that it became very difficult to identify when individual cars crossed the MEJ. While we have shown that the chevron system can be an effective solution to the expansion joint noise issue, we outline further development and testing to extend the durability of the treatment.”

2. Winter Storm Response – The City of Medina had several winter storms in December. I wanted to thank the Medina Police Department and Medina Public Works for their outstanding work. Icy and windy conditions made it extremely dangerous for workers to get their jobs done so I appreciate City Staff for all they did to keep the streets safe for travel. Police officers continues to patrol the city while assisting Public Works in determining dangerous areas to focus on. Public Works did an outstanding job at treating the streets and clearing trees and debris.
3. Bellevue Fire Report – Bellevue Fire Department is providing a list of calls they respond to in the City of Medina. Attached is the list of the types of incidents and the number of times they responded to Medina in December 2022 and the total number of calls for 2022. (**Attachments 2 and 3**)