Noise & Vibration

VAT Reconstruction Noise and Vibration Monitoring Plan

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A study was undertaken to assess noise and vibration impacts from the construction of three alternatives under consideration for the Virginia Avenue Tunnel Project. The reconstruction of the Virginia Avenue Tunnel has the potential to increase construction noise and vibration levels at sensitive land uses throughout the project area. Construction noise evaluations were conducted for the major construction activities using the FHWA Roadway Construction Noise Model (RCNM). The analysis results have indicated that all alternatives has the potential to increase noise levels above the local agency noise threshold. In addition, the construction vibration levels were evaluated against the construction vibration levels outlined in the FTA Noise and Vibration Assessment guidance document. In coordination with the Contractor, a noise and vibration mitigation plan was developed to ensure that the noise and vibration levels during construction will not exceed the thresholds. The team has to develop a monitoring system that it is transparent, robust and will ensure clear communication with the contractor. This presentation will focus on how the team evaluated and chose among three different noise and vibration monitoring systems that were under consideration: (1) System developed by the consultant (2) Online System A hosted by the consultant, and (3) Online System B supported by the consultant. The presentation will also discuss some of the preliminary lessons learned from early mitigation deployment.