

## Construction Noise Control: Hong Kong Reviews International Best Practices

**Authors :** Morgan Cheng, Wilson Ho, Max Yiu, Dragon Tsui, Wylog Wong, Richard Kwan, K. C. Lam, Hannah Lo, C. L. Wong

**Abstract :** Hong Kong has been known worldwide for its ability to thrive under trying circumstances. The 7.5 million residents of this mature and busy metropolis are living in a primarily high-rise city whereby development and renewal of the cityscape are taking place unceasingly. Hong Kong residents are therefore affected by the virtually continuous and numerous construction activities. In 2020, the Hong Kong environmental protection department (EPD) completed a feasibility study on managing construction noise, including those associated with the renovation of domestic premises. Part of the study was the review of management and control of construction noise in other metropolitan cities globally. As far as the authors are aware of, such worldwide and extensive review of best practices on construction noise control has not been conducted for over 20 years. In order to benefit from international best practices, the extensive review is to identify possible areas for improvement in Hong Kong. The consultant of the study first referred to the United Nations Report 'The World's Cities in 2016' and examined the top 100 cities therein. The 20 most suitable cities were then chosen for further review. Upon screening of each of these 20 cities, 12 cities with the more relevant management practices were selected for further scrutiny. These 12 cities were: Asia - Tokyo, Seoul, Taipei, Guangzhou, Singapore; Europe - City of Westminster (London), Berlin; North America - Toronto, New York City, San Francisco; Oceania - Sydney, Melbourne. Afterwards, three cities, namely Sydney, City of Westminster, and New York City, were selected for in-depth review. These cities were chosen primarily because of the maturity, success, and effectiveness of their construction noise management and control measures, as well as their similarity to Hong Kong in key and selected aspects. One of the more important findings of the review is the usefulness of early focus, with the aim of designing the noise issues away wherever practicable. The consultant examined the similar yet different construction noise early focus mechanisms of the three cities. This paper describes this landmark worldwide and extensive review of international best practices on construction noise management and control. The methodology, approach, and key findings are presented to give readers a succinct yet comprehensive view. The authors shared the findings with the acoustics professionals worldwide with the hope of global advancement of more mature construction noise management while welcoming sustainable development and construction.

**Keywords :** construction noise, international best practices, noise control, noise management

**Conference Title :** ICA 2021 : International Conference on Acoustics

**Conference Location :** Tokyo, Japan

**Conference Dates :** October 07-08, 2021