**Expert Assessment: Concert Hall Foundations and insulation at the Vltavská Site**

# Entry parameters

* The intention of the City of Prague is to build a new concert hall within the contemporary music centre which will comply with the global standards (related to acoustics, capacity, disposition, technology, architecture and urban planning) and, at the same time, which will reassert the international reputation of Prague as a cultural capital and the symbol of the Czech music tradition.
* The parameter of the highest importance concerning the main concert hall is acoustics, the quality of which must reach the highest level possible at the time of construction to make the building comparable worldwide. The Contracting Authority expects for the main concert hall to have good natural acoustics and to serve for playing classical music, especially symphonies.
	+ The expected capacity of the main hall, with respect to the requested acoustics quality, is 1,800 to 2,200 spectators.
* The “Vltavská” area was recommended as a site for constructing the new concert hall building by Prague City Council Resolution No. 2033 of 29 August 2017.
	+ The selected Vltavská area is situated in the transformation zone Bubny. The entire area of Vltavská and Bubny is expected to be completely transformed in the future. The future shape of this area arises from the territorial study of Holešovice Bubny‐Zátory elaborated by the architecture studio Pelčák a partner architekti and ThomasMüllerIvanReinmann architekten GmbH.
	+ The location of the concert hall building is designated by the territorial study; the precise position, ground plan and shape of the concert hall building is to be stipulated based on the architectural competition. The future building of Vltavská filharmonie is expected to consist of at least 2 underground floors.
	+ The current arrangement and routing of the transport infrastructure in the given area provides a source of vibration arising from the underground transport (the metro), above‐ground transport (cars and trucks, trams, buses, etc.), rail transport, transport by boat, the river Vltava (the weir) and some other, less significant sources (such as the metro ventilation exhaust, etc.).
	+ The prerequisite for elaborating the expert opinion is to suppress vibration in the future building, however, it is not purposeful to process vibration measurement and to design specific measures at this stage of the project without the knowledge of the specific solution.
	+ Therefore, the expert opinion will serve as a basis for the architectural competition concerning the design of the new building of Vltavská filharmonie. Based on the specific architectural design, detailed vibration measurement will be carried out.

# Requirements for processing

* The processor will stipulate the general principles, terms and recommendations for the designed foundation of the concert hall building.
* The processor will stipulate the general principles, terms and recommendations for the insulation of the site as well as all potentially protected rooms inside the building (main hall, small hall, recording studio, etc.) of the concert hall building.
	+ The opinion will be elaborated based on the processor’s experience from the realisation of similar buildings, i.e. based on the analysis of typical solutions of the foundations and analysis of the site positioning.
	+ The opinion will be elaborated without the knowledge of the specific architectural solution.
	+ The processor will ground its opinion on a list of similar buildings realised (at least 3) to which the processor has contributed while providing anti‐vibration solution and the resulting acoustic parameters inside the protected premises.
	+ The expert opinion will include a chapter defining the requirements and parameters of the vibration research and measurement to be performed based on the architectural design.
	+ The opinion will be processed while taking into account the intention of the City of Prague to build a top‐class concert hall with the perfect acoustics.