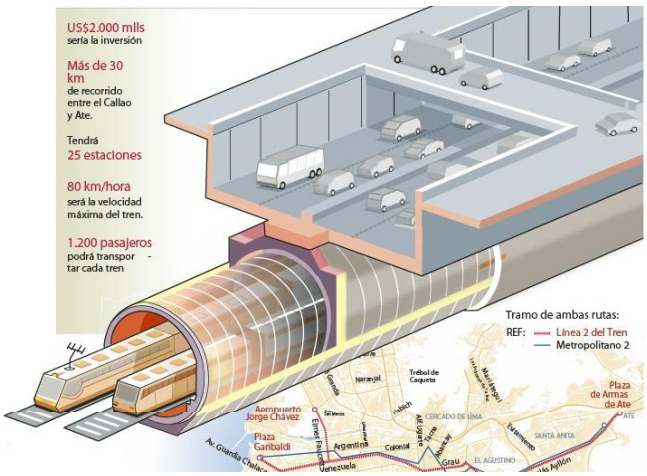
L2 Metro Lima (Peru)

2015-2017



Description

The city of Lima (Peru) has one operational elevated Metro line and is constructing its second line, named L2, which is mainly underground and which will connect suburbs Municipalidad Ate and Callao Harbour.

L2 line, with a total length about 33 km, is being executed using conventional methods (8 km) and 9.2 m inner diameter TBM (25 km). It will have 23 stations, 2 interchange stations and 2 new depots.

Scope

At a first stage, vibration levels into buildings considering a predefined superstructure composition were predicted using a semi-empirical model.

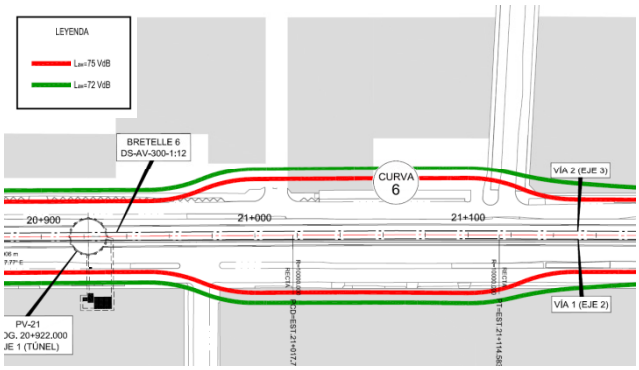
The prediction model considers rolling stock characteristics, track composition, ground geological conditions and building dynamic behaviour.

Areas where vibrations levels are expected to be higher than limits were identified. Vibration excesses were also quantified.

Finally, vibration mitigation solutions to be installed in order to decrease vibration levels were defined down to the last detail. Under-slab mats were considered.

Objective

Vibration impact assessment project to predict vibration level into buildings due to future railway operation and vibration mitigation solutions design where needed.



Inversión aprox.	Duración del recorrido	Estaciones	Pasajeros (aprox.)	Tiempo de ejecución	Beneficiados
US$ **1.800 mlls**	45 minutos	25	600.000 diarios	2 años solo estudios	4.000.000 de personas