

METROLINK

Integrated Transport. Integrated Life.

A14.3

**Track Support
System
Assumptions**

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14. Track Support Properties

This Appendix to Chapter 14 of the Environmental Impact Assessment Report (EIAR) provides information concerning the assumptions which have been made in the modelling of ground-borne noise and vibration from the operation of the MetroLink project with regard to the track support system.

14.1 Standard Track in Tunnels

The standard track assumed consists of booted blocks with the following properties:

Rail	CEN60		
Support spacing	650	mm	
Rail baseplate dynamic stiffness	150	MN/m	
Rail baseplate loss factor	0.2	dimensionless	
Block mass	125	Kg	
Boot dynamic stiffness	17	MN/m	
Boot loss factor	0.2	dimensionless	

14.2 Floating Slab Track in Tunnels under Highly Sensitive Receptors

The floating slab track assumed consists of the following properties:

Rail	CEN60		
Support spacing	650	mm	
Rail baseplate dynamic stiffness	150	MN/m	
Rail baseplate loss factor	0.2	dimensionless	
Block mass	125	Kg	
Boot dynamic stiffness	17	MN/m	
Boot loss factor	0.2	dimensionless	
Slab length	1,950	mm	
Slab mass	2,396	kg	
Nu of bearings per slab	4		
Dynamic stiffness of each bearing	1.034	MN/m	
Bearing damper loss factor	0.5	dimensionless	