## METROLINK

Integrated Transport. Integrated Life.

## Train Characteristics

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## 14. Train Characteristics

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 groundborne noise and vibration from the operation of MetroLink.

### 14.1 Rolling Stock

The trains assumed for the MetroLink are based on the design of those used on the Metro in Madrid, which are CAF 6000 units. The assessment is based on the train design specifications set out below. Although the RO permits a range of train design specifications, any such design (and associated impacts) will be within the scope of what has been assessed in this EIAR.

The parameters used in modelling are given in Tables 14.1 and 14.2.
Table 14.1: Rolling Stock Parameters - CAF Series 6000

| CAF Series 6000 | Tare scenario | Maximum load scenario | Maximum exceptional load scenario |
| :--- | ---: | ---: | ---: |
| Number of cars | 3 |  |  |
| Bogies by car | 2 |  |  |
| Mass of motor car body [kg] | 23020 | 41020 | 44020 |
| Mass of motor bogie [kg] | 4313 | 4313 | 4313 |
| Mass of axis [kg] | 1381 | 1381 | 1381 |
| Axle load [kg] | 9292,5 | 13792,5 | 14542,5 |
| Unsprung mass [kg] | 1381,0 | 1381,0 | 1381,0 |
| Unsprung mass [\%] | 14,9 | 10,0 | 9,5 |

Table 14.2 CAF Series 6000 Dimensions

| Aspect of Rolling Stock | Dimension, $\mathbf{m}$ |
| :--- | :---: |
| Bogie wheelbase | 2.25 |
| Bogie pivot spacing | 13.5 |
| Length over couplers | 24.0 |




Diagram 14.1: Speed/Distance Diagram for Rolling Stock

