

three (3) strategic locations during construction phase as detailed in **Appendix BD** of the Particular Specification.

- 23.9.3 Noise barriers and additional noise mitigation measures are recommended in **Appendix BD** of the Particular Specification based on preliminary estimation of construction methodology. These noise barrier locations are described in **Clauses** Error! Reference source not found..
- 23.9.4 Above-ground works not critical for safety reasons within the CR206 shall only be allowed from Mondays to Saturdays from 7am to 7pm. However, noisy activities shall only be allowed from 9am to 5pm.
- 23.9.5 For the worksite near Clementi Forests and Maju Forest, the Contractor shall erect a 12m height noise barrier with minimum Sound Transmission Class (STC) of 20, along the west boundary of the construction worksite and LTA's standard TBM enclosure (one façade opening at northern side) 15m high at the boundary of Launch shaft worksite. The Contractor shall apply 6m high noise barrier along the south-east boundary of the construction worksite and 12m high noise barrier along the north-east boundary of the noise barriers with minimum Sound Transmission Class (STC) of 20. The Contractor shall use the portable noise barrier close to the noisy equipment/ activities, whichever the equipment is applicable. When portable inflatable noise barrier is used, silent type of gensets shall be used for the barrier. More details on the location of this barrier can be viewed in **Appendix BD** of the Particular Specification.
- 23.10 Ground-borne Vibration during Construction Phase**
- 23.10.1 The Contractor shall control construction vibration levels using the best available techniques (BAT). The Contractor shall ensure that the vibration levels at Maju Forest and Clementi Forest (excluding the worksite area) do not exceed Peak Particle Velocity PPV, 8 mm/s.
- 23.10.2 The Contractor shall setup temporary barriers of adequate length (e.g. water barrier of 1 m height) when tunnel boring and rock breaking and excavation work are due to occur. At Stage 2, a barrier of 480 m shall be provided along Clementi Road. At this stage, canvas sheets must be used to cover the 635 m of the permanent BRC fences along Brookvale Drive. In addition, existing railings along Clementi Road must be covered with canvas sheets. Refer to **Appendix BD** of the Particular Specification for details.
- 23.10.3 At Maju and Clementi Forests, continuous vibration monitoring shall be conducted at one (1) location each before the commencement of construction to obtain baseline levels at each location as detailed in **Appendix BD** of the Particular Specification.

- 23.10.4 At Maju and Clementi Forests, continuous vibration monitoring shall be conducted at one (1) location each during rock breaking and excavation, piling and tunnel boring activities, as detailed in **Appendix BD** of the Particular Specification.
- 23.11 Environmental Protection during Commissioning Phase**
- 23.11.1 Commissioning phase is a short transitional period specified for EMMP purpose, where environmental monitoring works are proposed and to be conducted by the Contractor before handing over to the rail operator in operational phase.
- 23.11.2 The following **Clauses 23.12 to 23.15** highlight specific management measures for environmental protection during commissioning phase (i.e. after completion of all the major construction activities).
- 23.12 Terrestrial Ecology Protection at CR206 during Commissioning Phase**
- 23.12.1 Monthly Flora Inspection
- (a) The Contractor shall work with their Arborist to conduct monthly tree inspections as defined in **Appendix BD** of the Particular Specification.
 - (b) The Contractor shall work with their Flora specialist to conduct monthly flora inspections as defined in **Appendix BD** of the Particular Specification.
 - (c) Monthly flora inspections shall be conducted within the former worksite boundary and in forested areas adjacent to the former worksite up to 15m from the boundary. The following shall be noted during the inspections:

submitted to the Authority within 24 hours upon receipt of complaints for approval.

23.17 Deliverables

23.17.1 Plans/reports/records listed in the table below shall be documented by the Contractor and submitted to the Client and relevant agencies (MND/URA, NParks, NEA and PUB) on the frequency specified in the **Appendix BD** of the Particular Specification.

23.17.2 Biodiversity related deliverables

Phases	Document	Submission Milestones and Frequency	Action by
Pre-construction	<p>Contract-specific EMMP (refer to Clause 23.1.2 - inputs from biodiversity team) should include the following (but not limited to):</p> <ul style="list-style-type: none"> • Method statement for site clearance and tree felling (Clause 23.3.3) • Method statement for fauna response plan (Clause 23.3.5) • Tree protection specifications (Clause 23.3.3) • Sapling harvesting specifications (Clauses 23.3.3 and 23.3.4) • Tree transplanting recommendations (Clause 23.3.3) • Method statement for fauna management during site clearance (Clause 23.3.5) • Reforestation planting palette and plant salvaging for reforestation and landscaping (Clause 23.3.4) • Tree maintenance and care recommendations (Clause 23.3.3) 	Within <u>three</u> (3) months after Contract award	Arborist, Flora Specialist, Ecologist

Phases	Document	Submission Milestones and Frequency	Action by
	aquatic sampling, and camera trapping (Clause 23.3.5)	days after each inspection	
	Monthly fauna inspection report (Clause 23.3.5)	Within five (5) working days after each inspection	Ecologist
	Wildlife incident report (Clause 23.3.5)	Within 24 hr of each wildlife encounter	Ecologist
Commissioning	Monthly flora inspection report (Clause 23.12.1)	Within five (5) working days after each inspection	Flora Specialist
	Monthly fauna inspection report (Clause 23.12.2)	Within five (5) working days after each inspection	Ecologist
	Wildlife incident report (Clause 23.12.2)	Within 24 hr of each wildlife encounter	Ecologist

23.17.3 Other deliverables

Phases	Document	Submission Milestones and Frequency	Action by
Pre-construction	Contract-specific EMMP (refer to Clause 23.1.2 herein - inputs from the other environmental team) should include the following plans (but not limited to):	Within <u>three</u> (3) months after Contract award	Environmental Consultant