

**E1.3 Community Agreement Report:  
TBM works Z1 – EPL 21766**  
Revision A - Coffs Harbour Bypass

FERROVIAL GAMUDA JOINT VENTURE

## VERSION CONTROL

| Revision | Date       | Description   |
|----------|------------|---|
| A        | 12/09/2024 | Submission to EPA   |
| B        | 13/09/2024 | Redacted version for website with receiver addresses removed. |
| C        |            |   |
| D        |            |   |
| E        |            |   |

## CONTENTS

|          |  |           |
|----------|--|-----------|
| <b>1</b> | <b>Purpose</b>                                   | <b>3</b>  |
| <b>2</b> | <b>Proposed OOHW</b>                             | <b>3</b>  |
| 2.1      | Justification                                    | 4         |
| <b>3</b> | <b>Noise Sensitive Receivers</b>                 | <b>4</b>  |
| <b>4</b> | <b>Consultation Summary</b>                      | <b>4</b>  |
| <b>5</b> | <b>Community response &amp; Consent Rates</b>    | <b>5</b>  |
| <b>6</b> | <b>Noise Validation monitoring plan</b>          | <b>5</b>  |
|          | <b>Attachment A – Noise Assessment Report</b>    | <b>6</b>  |
|          | <b>Attachment B – Community Agreement Letter</b> | <b>9</b>  |
|          | <b>Attachment C – Email Agreement</b>            | <b>13</b> |

## TABLES

|  |   |
|--|---|
| Table 1: EPL Requirements .....                                  | 3 |
| Table 2: Predicted Noise Impact Summary .....                    | 4 |
| Table 3: Community Agreement Summary .....                       | 5 |
| Table 4: Noise Sensitive Receiver Consultation and Consent ..... | 5 |

# 1 PURPOSE

This report details the consultation undertaken by Ferrovial Gamuda Joint Venture (FGJV) to obtain community agreement for out of hours works (OOHW) at Fill 0.5 in Zone 1 for a Tunnel Boring Machine (TBM) undertaking drainage works.

This report has been prepared in accordance with EPL Condition E1.3 as detailed in Table 1 below.

TABLE 1: EPL REQUIREMENTS

| Ref  | Condition Requirement  | Where Addressed           |
|--|--|---------------------------|
| E1.3   | The licensee must report to the EPA the community consultation and agreement process that was undertaken with the Community Affected Catchments.<br><br>This report to the EPA must be:  | This Report               |
|  | a) prepared in writing;  |                           |
|  | b) detail the steps taken to fulfil the requirements of condition E1.2;  | Section 4                 |
|  | c) demonstrate that the Noise Sensitive Receivers understood the nature of the works and any predicted impacts, including that consideration was made of additional requirements relevant to the needs of culturally and linguistically diverse Noise Sensitive Receivers; | Section 4                 |
|  | d) provide the script used during the community consultation with Noise Sensitive Receivers;   | Section 4<br>Attachment A |
|  | e) report community response and consent rates (including where no contact could be made) against the total community affected catchments, and must be broken down into response and consent rates based on sub-catchments that are delineated by affectation levels;      | Section 5                 |
|  | f) include a noise validation monitoring plan as required by E2.1; and   | Section 6                 |
|  | g) be submitted to the EPA at least 15 business days prior to any works that are the subject of the agreement being undertaken unless prior arrangements have been made with the EPA.  | Noted.                    |
| A copy of the report must be:  | Noted. Following EPA agreement, a copy of this report will be uploaded to the Project website.   |                           |
| a) kept by the licensee for the duration of this licence including on the premises, and made available to an EPA authorised officer on request; and<br><br>b) be made available on the licensee's project website or another website approved in writing by the EPA for the duration of the OOHWs permitted under condition E1.1. (Personal details of Noise Sensitive Receivers must be omitted). |  |                           |

# 2 PROPOSED OOHW

In accordance with EPL Condition E1, FGJV has sought community agreement from noise sensitive receivers to undertake OOHW at Fill 0.5 Saturday between 1pm to 5pm.

Agreement has been sought for the 14<sup>th</sup> and 21<sup>st</sup> of September.

Construction activities associated with the TBM drainage works include:

- Tunnel boring
- Concrete pipe relocation
- Spoil removal

## 2.1 JUSTIFICATION

While stationary during the weekend (24th – 25th August) the TBM head sunk 50mm. This is due to the soil conditions on site underneath the existing freeway and the heavy TBM head sitting in the one spot for an extended period (Saturday 1pm to Monday 7am).

The presents risks in both safety and quality for the following reasons

- Safety – Further settlement may create a void underneath the road which may result in settlement of the freeway.
- Quality – Further settlement of the line results in invert level being too low as per design.

This can be mitigated by the extension of Saturday work in the following two ways:

- Reduce the time the bore head is sitting in the one location – work extended Saturday to minimise total stationary time by 4 hours.
- Increase working time which pushes program to reduce time under the road

By working an additional 4hrs on Saturday, the overall stationary time is reduced, whilst also ensuring the TBM is progressing as quickly as possible to get the drainage line finished to reduce any risks of settlement, freeway closures and bore retrievals.

## 3 NOISE SENSITIVE RECEIVERS

Detailed noise impact assessments were undertaken using the Project’s Noise Model Noisecheck to identify noise sensitive receivers predicted to experience noise levels above the daytime OOH noise management level (NML) and agreement would need to be sought from.

The Noise Assessment Report for the activity is included in Attachment A.

BASED ON THE PROPOSED WORKS, NOISE IMPACTS TO NEARBY RESIDENTS ARE PREDICTED AND ARE SUMMARISED IN TABLE 2. A DETAILED BREAKDOWN OF THE PREDICTED IMPACTS FOR ALL WORK SCENARIOS AT EACH RECEIVER ADDRESS IS PROVIDED IN

Table 4.

TABLE 2: PREDICTED NOISE IMPACT SUMMARY

| Noise Category       | dBA above NML | Affected receivers | Mitigation               |
|----------------------|---------------|--------------------|--------------------------|
| Noticeable           | <5            | 0                  | -                        |
| Clearly Audible      | 5 to 15       | 1                  | N, R1, DR                |
| Moderately Intrusive | 15 to 25      | 0                  | V, N, R1, DR             |
| Highly Intrusive     | >25           | 0                  | V, IB, N, R1, DR, PC, SN |

## 4 CONSULTATION SUMMARY

The affected receiver for the proposed works were contacted to request agreement for the proposed works outside of approved construction hours on the Coffs Harbour bypass.

The receiver was provided with an email (as per the residents preferred method of contact) containing a letter detailing the Project’s request for agreement (refer to Attachment B).

The letter also included the following details:

- Description of the different construction activities proposed consistent with Section 2 above;
- Proposal for OOHV as detailed in section 2 above;
- Map showing the location of the proposed works;
- Summary of the noise levels predicted consistent with Section 3 above;
- Mitigation measures to minimise impacts;
- Receiver’s ability to withdraw agreement at any stage during the works; and
- Project contact details.

## 5 COMMUNITY RESPONSE & CONSENT RATES

Contact was made with the 1 noise affected receiver.

Table 3 below shows agreement percentage received for the works.

A MORE DETAILED BREAKDOWN OF THE CONSULTATION UNDERTAKEN WITH EACH RECEIVER AND THEIR RESPONSE IS PROVIDED IN

Table 4

A copy of the agreement is included in Attachment C.

TABLE 3: COMMUNITY AGREEMENT SUMMARY

| Work Area          | Total Affected Receivers | Agreement Received |     |
|--------------------|--------------------------|--------------------|-----|
|                    |                          | No.                | %   |
| Fill 0.5 TBM works | 1                        | 1                  | 100 |

## 6 NOISE VALIDATION MONITORING PLAN

Noise validation monitoring of the proposed OOHV will be undertaken in accordance with the Project’s approved Construction Noise and Vibration Monitoring Program (Appendix 7 of the Construction Noise and Vibration Management Plan) to ensure actual noise levels are consistent with those predicted by the Project’s noise model and presented in the Community Agreement Letter (Attachment A).

TABLE 4: NOISE SENSITIVE RECEIVER CONSULTATION AND CONSENT

| No. | Receiver Address | NCA | NML | Work Area | Noise Impacts        |                 | Initial Agreement Consultation Summary (Nov-24) |                         |                     |
|-----|------------------|-----|-----|-----------|----------------------|-----------------|---|-------------------------|---------------------|
|     |                  |     |     |           | TBM works Prediction | Noise Category  | Contact Made?                                   | Consultation Undertaken | Agreement Obtained? |
| 1   | REDACTED         | 2   | 52  | Fill 0.5  | 62                   | Clearly Audible | Yes   | Email 12/09/24          | Email Agreement     |

# **ATTACHMENT A – NOISE ASSESSMENT REPORT**

# Noise Assessment Report - Z1 TBM, Day OOH

Date: 27/08/24

Created by: Emma Oldman

## 1. Introduction

This report presents a noise assessment of z1 tbn construction activity which is proposed to occur during the day ooh period (RMS CNVG OOHW1). This report presents the proposed activities, noise prediction results, an assessment against RMS CNVG requirements and details proposed noise management and mitigation measures.

## 2. Method

NoiseCheck is a 'front-end' 3-D noise prediction platform which adopts a database of predictions that are generated in third party proprietary software which conforms to ISO9613 Acoustics - Attenuation of Sound During Propagation Outdoors - Part 2: General Method of Calculation implemented to ISO/TR 17534-3:2015 requirements. The predictions consider source to receiver distance and height and the noise attenuation provided by ground and air absorption, topography, surrounding buildings and other solid objects and permanent noise barriers (where applicable). The typical height of plant and equipment is 2m. The noise predictions at surrounding single and double storey properties apply at 1.5m at the most affected facade. Predictions for apartment buildings with greater than two storeys apply at the worst affected floor and facade. This assessment presents the total LAeq noise level from all activities.

## 3. Works description

The work activities that have been assessed are shown in Figure 1. Details of the activities are provided in Table 1. All noise levels referenced are in dBA, Leq,15minutes.

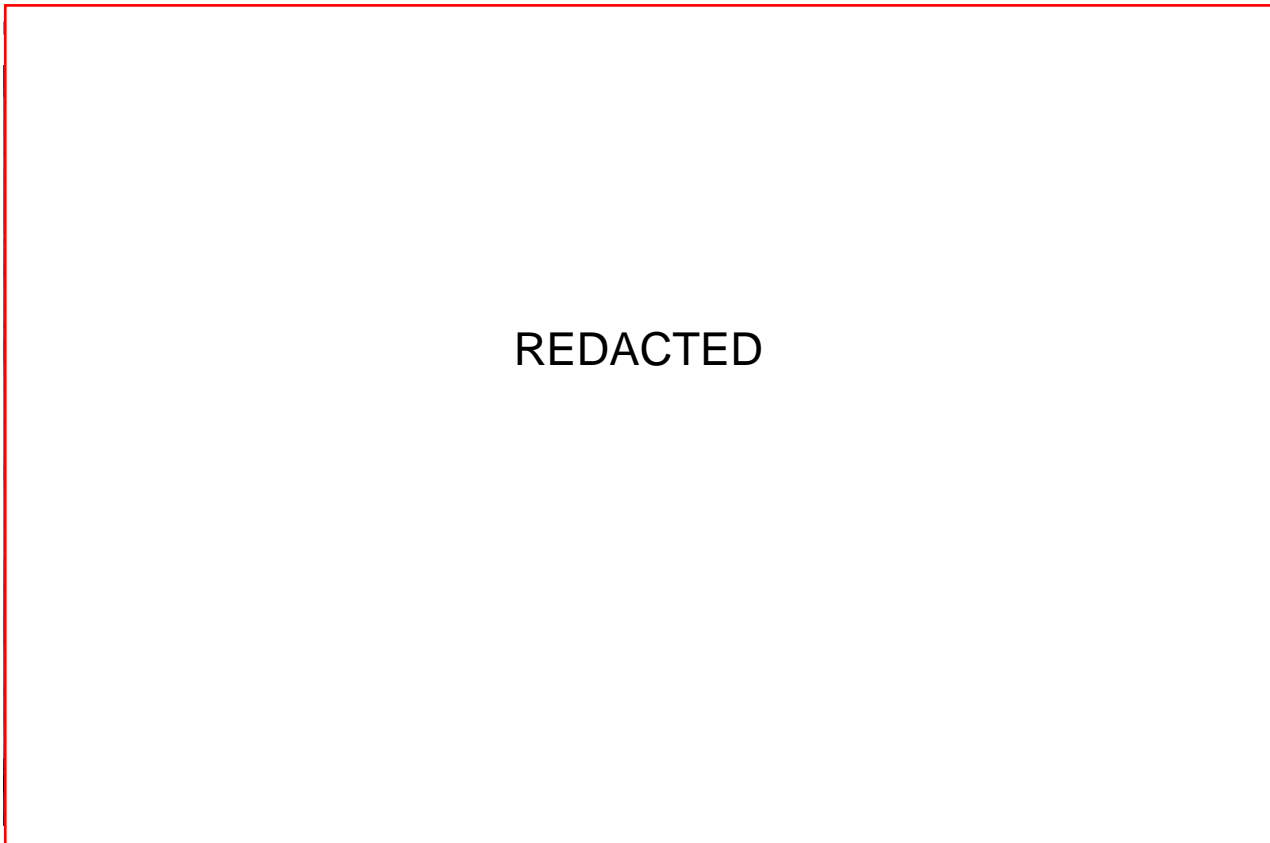


Table 1. Summary of modelled plant and equipment

| Name  | List of equipment | Duration | Sound power level | Annoyance penalty | Mitigation          | Mitigation reduction | Notes |
|-------|-------------------|----------|-------------------|-------------------|---------------------|----------------------|-------|
| 📍 TBM | TBM Generator     | 100%     | 96 dBA            | 0 dBA             | Portable barrier eg | 5 dBA                |       |

|          |   |     |         |                |       |
|----------|---|-----|---------|----------------|-------|
| 📍 Digger | 50t Tunnel Excavator  | 75% | 105 dBA | 0 dBA          | 0 dBA |
| 📍 LVs    | Light vehicles , Light vehicles , Light vehicles , Light vehicles | 30% | 94 dBA  | 0, 0, 0, 0 dBA | 0 dBA |

📍 Static noise   🔄 Moving noise (continuous)   🔄 Moving noise (staged)

## 4. Results

OOHW1 ▼ 📘

Based on the activities detailed above, noise levels above the NMLs have been predicted at several properties. The number of properties which exceed the NML for each land use surrounding the site are provided in the table below.

**Table 2. Summary of predicted potential impacts at all surrounding land uses**

| Land use    | Noticeable | Clearly audible | Moderately intrusive | Highly intrusive |
|-------------|------------|-----------------|----------------------|------------------|
|             | -          | N, R1, DR       | V, N, R1, DR         | V, N, R1, DR     |
| Residential | 0          | 1               | 0                    | 0                |

Figure 2 provides map of all surrounding properties which have predicted noise levels above NML and additional mitigation measures. The details of these properties are also shown in Table 3. All noise levels referenced are in dBA, Leq,15minutes.

**Figure 2. Map of predicted potential impacts at surrounding land uses**

