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A2I | HAREFIELD YARD – CONSTRUCTION NOISE AND VIBRATION IMPACT STATEMENT ADDENDUM

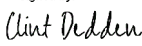
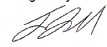
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GLOSSARY

Specific terms and acronyms used throughout this plan are listed and described in Table 1 below.

TABLE 1: DEFINITIONS

TERM	DEFINITION
A2I	Albury to Illabo section of the Inland Rail project
Addendum	Addendum to the endorsed Construction Noise and Vibration Impact Statement
CA	Consistency Assessment
CoA	Conditions of Approval for SSI-10055
CNVIS	Construction Noise and Vibration Impact Statement
Harefield Yard	Harefield Yard Clearances enhancement site
km	Kilometres
m	Metres
NML	Noise Management Levels
OOH	Out-of-hours
Project	Albury to Illabo Project approved under Section 5.19 of the EP&A Act on 8 October 2024, as modified on 13 August 2025
RBL	Rating Background Level
SLR Predict	A2I noise and vibration management tool
SSI	State Significant Infrastructure
t	tonnes
W.001A	Work scenario 001A - Site Establishment – Signalling Works
W.001B	Work scenario 001B – Site Establishment _ Track and Civil
W.004A	Work scenario 004A - Track Work - Peak
W.005A	Work scenario 005A - Track Work - Typical
W.008A	Work scenario 008A - Gantry Removal
W.009A	Work scenario 009A - Underbore Installation
W.009B	Work scenario 009B – Signalling Work

1 INTRODUCTION

1.1 Inland Rail

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Beveridge and Kagaru via regional Victoria, New South Wales and Queensland. The Inland Rail route would involve using approximately 1,000 km of existing track (with enhancements and upgrades where necessary) and 600 km of new track, passing through 30 local government areas. Inland Rail will accommodate double-stacked freight trains up to 1,800 metres (m) long and 6.5 m high.

The Albury to Illabo (A2I) section (the Project) forms a key component of the Inland Rail program. It is a 185 km section of existing rail corridor located in regional NSW between the towns of Albury and Illabo. Works would include track realignment, lowering and/or modification within the existing rail corridor, modification, removal or replacement of bridge structures (rail, road and/or pedestrian bridges), raising or replacing signal gantries, level-crossing modifications and other associated works.

Precinct	Enhancement sites
Albury Precinct	Murray River bridge
	Albury Station pedestrian bridge
	Albury Yard clearances
	Riverina Highway bridge
	Billy Hughes bridge
	Table Top Yard clearances
Greater Hume-Lockhart	Culcairn pedestrian bridge
	Culcairn Yard clearances
	Henty Yard clearances
	Yerong Creek Yard clearances
	The Rock Yard clearances
	Uranquinty Yard clearances
Wagga Wagga	Pearson Street bridge
	Cassidy Parade pedestrian bridge
	Edmonson Street bridge
	Wagga Wagga Station pedestrian bridge
	Wagga Wagga Yard clearances
	Bomen Yard clearances
	Harefield Yard clearances
	Kemp Street bridge
Junee	Junee Station pedestrian bridge
	Junee Yard clearances
	Olympic Highway underbridge
	Junee to Illabo clearances



FIGURE 1: PROJECT ENHANCEMENT SITES

1.1 Purpose of this Addendum

This Construction Noise and Vibration Impact Statement Addendum (Addendum) has been prepared to identify and assess the additional work areas required to support and enable the signalling activities and track works associated with the Harefield Yard clearances enhancement site (Harefield Yard), as shown in Figure 2 through to Figure 8 below. This Addendum will form part of the endorsed Construction Noise and Vibration Impact Statement (CNVIS) (Doc No: 6-0052-210-EEC-J1-AS-0001) for Harefield Yard.

This Addendum should be reviewed in conjunction with the CNVIS for Harefield Yard, including adopted Rating Background Levels (RBL), Noise Management Levels (NML) and assessment criteria in accordance with the Conditions of Approval (CoA) (SSI-10055).

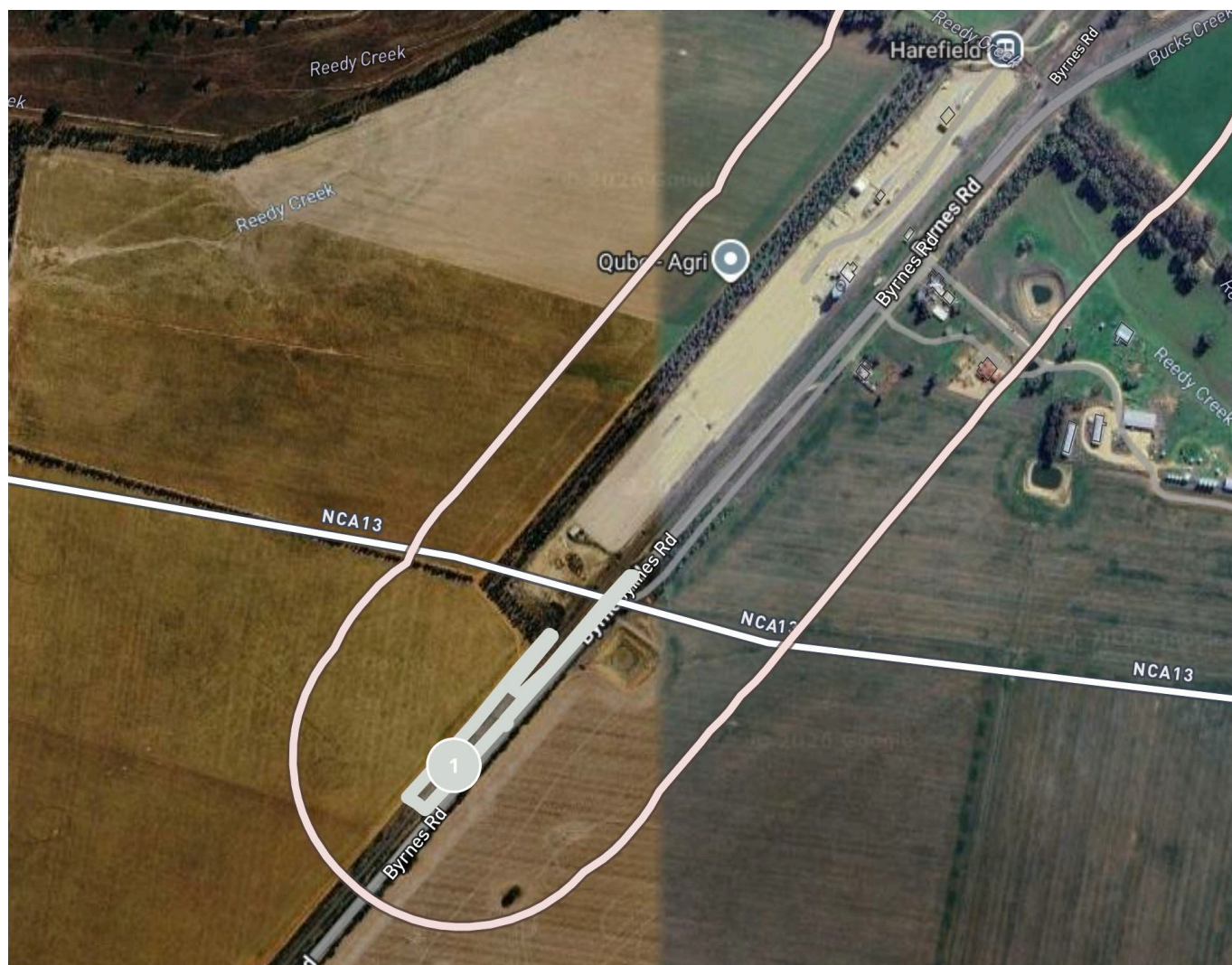


FIGURE 2: ADDITIONAL WORK AREA REQUIRED FOR HAREFIELD YARD (W.001A)



FIGURE 3: ADDITIONAL WORK AREA REQUIRED FOR HAREFIELD YARD (W.008A)



FIGURE 4: ADDITIONAL WORK AREA REQUIRED FOR HAREFIELD YARD (W.009A)



FIGURE 5: ADDITIONAL WORK AREA REQUIRED FOR HAREFIELD YARD (W.009B)



FIGURE 6: ADDITIONAL WORK AREA REQUIRED FOR HAREFIELD YARD (W.001B)



FIGURE 7: ADDITIONAL WORK AREA REQUIRED FOR HAREFIELD YARD (W.004A)



FIGURE 8: ADDITIONAL WORK AREA REQUIRED FOR HAREFIELD YARD (W.005A)

2 NOISE ASSESSMENT

The potential construction noise levels from the proposed works have been predicted using SLR Predict, the A2I project-specific noise and vibration tool. This CNVIS Addendum assesses the work scenarios identified in Table 2.

TABLE 2: WORK SCENARIO DESCRIPTION

ID	Scenario	Description	Total Lw
Signalling Works			
W.001A	Site establishment	- Access road and laydown construction - Delivery of materials/equipment	116
W.008A	Gantry Removal	Removal of gantry structure and footings	101
W.009A	Signalling Works	Underbore installation	111
W.009B	Signalling Works	Installation of signalling infrastructure	110
Track and Civil Works			
W.001B	Site establishment	- Access road and laydown construction - Delivery of materials/equipment - Stockpiling	116
W.004A	Track Work - Peak	Track work	119
W.005A	Track Work Typical	Track work	114

2.1 Site Establishment W.001A (Signalling Works)

2.1.1 Scope

The additional work area and revised plant and equipment required for Harefield Yard (Figure 2) forms part of the wider scope associated at the Harefield Yard clearances enhancement site and will enable signalling works.

The endorsed Harefield Yard CNVIS has assessed site establishment under work scenario W.001, and the proposed works under the CNVIS Addendum include the following:

Activity

- Access road and laydown construction
- Delivery of materials/equipment

Plant and equipment

- Excavator – tracked (20t)
- Front End Loader

- Light vehicle
- Truck and Dog (30t)
- Water Cart

Construction hours

- Standard approved construction hours:
 - 7am to 6pm Monday to Friday, inclusive
 - 7am to 6pm Saturday
- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays

2.1.2 Assessment

An additional work area and revised plant and equipment, as per the Harefield Yard Consistency Assessment (CA) (Doc No: 6-0052-210-EAP-J1-AS-0001), for the Harefield Yard CNVIS has been identified, and assessed as per methodology, and plant and equipment noted in Section 2.1.1 above. SLR Predict, the A2I noise and vibration management tool, has been utilised to assess this additional work area and revised plant and equipment. The plant and equipment list (as noted above) has been considered as a worst-case scenario within a 15-minute assessment period.

The operating time (utilisation %) of each plant and equipment is representative to site working conditions.

2.1.3 Results

The SLR Predict results are presented in Appendix A, for approved standard hours, as the most affected period.

Table 3 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.001 exceedances identified in the Harefield Yard CNVIS (Doc No: 6-0052-210-EEC-J1-AS-0001)
- W.001A exceedances identified in the SLR Predict results for the additional work areas shown in Figure 2.

TABLE 3: EXCEEDANCE COMPARISONS FOR W.001A

ASSESSMENT RESULTS (DAYTIME OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	W.001 CNVIS	SLR Predict – W.001A additional area
Total Lw (dBA)	112	116
Noticeable (1-5 dB)	4	3
Clearly Audible (6-15 dB)	1	0
Moderately Intrusive (16-25 dB)	0	0
Highly Intrusive (>25 dB)	0	0
Above Sleep Disturbance (>Screening level)	N/A	NA
Above Sleep Awake (>65 dB)	N/A	N/A

Although Table 3 shows an overall increase in the Total Lw (dBA) from 112 to 116, compared to the Harefield Yard CNVIS (Doc No: 6-0052-310-EEC-J1-AS-0001), the intensity of impacts resulting from the current proposed scenario

(last column) decreased in the number of receivers experiencing a noticeable level of noise (1-5 dB exceedance) and clearly audible (6-15 dB exceedance). The reason for the decrease in impacts to residential receivers is a result of the proposed CIZ extension being at a greater distance to the receivers than was previously modelled in the Harefield Yard CNVIS (Doc No: 6-0052-210-EEC-J1-AS-0001).

2.2 Signalling Works W.008A (Gantry Removal)

2.2.1 Scope

The additional work area required for Harefield Yard (Figure 3) forms part of the wider scope associated at the Harefield Yard clearances enhancement site and will enable signalling works. Gantry removal was assessed under the Harefield Yard CNVIS (Doc No: 6-0052-210-EEC-J1-AS-0001) but it was later determined that additional area is required to safely mobilise and manoeuvre plant and equipment for this scope of works.

The endorsed Harefield Yard CNVIS has assessed gantry removal activity under work scenario W.008, and the proposed works under the CNVIS Addendum include the following:

Activity

- Removal of the Gantry Structure

Plant and equipment

- Crane - franna
- Truck – flat bed
- Elevated Work Platform

Construction hours

- Standard approved construction hours:
 - 7am to 6pm Monday to Friday, inclusive
 - 7am to 6pm Saturday
- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays
- Evening OOH:
 - 6pm to 10pm Monday to Sunday (including Public Holidays)
- Night OOH:
 - 10pm to 7am Monday to Saturday
 - 10pm to 8am Sunday (including Public Holidays)

2.2.2 Assessment

An additional work area, as per the Harefield Yard CNVIS (Doc No: 6-0052-210-EEC-J1-AS-0001), compared to the Harefield Yard CNVIS has been identified, and assessed as per methodology, and plant and equipment noted in Section 2.2.1 above. SLR Predict, the A21 noise and vibration management tool, has been utilised to assess this additional work area. The plant and equipment list (as noted above) has been considered as a worst-case scenario within a 15-minute assessment period.

The operating time (utilisation %) of each plant and equipment is representative to site working conditions.

2.2.3 Results

The SLR Predict results are presented in Appendix B, for night out of hours, as the most affected period.

Table 4 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.008 exceedances identified in the Harefield Yard CNVIS
- W.008A exceedances identified in the SLR Predict results for the additional work areas shown in Figure 3.

TABLE 4: EXCEEDANCE COMPARISONS FOR W.008A

ASSESSMENT RESULTS (NIGHT OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	W.008 CNVIS	SLR Predict – W.008A additional area
Total Lw (dBA)	120	101
Noticeable (1-5 dB)	0	0
Clearly Audible (6-15 dB)	3	0
Moderately Intrusive (16-25 dB)	0	0
Highly Intrusive (>25 dB)	0	0
Above Sleep Disturbance (>Screening level)	3	0
Above Sleep Awake (>65 dB)	0	0

Table 4 shows a decrease in the intensity of impacts resulting from the current proposed scenario (last column). This is likely due to the reduction in the quantity and type of plant and equipment and lower total sound power level required for the removal of the gantry structure as was modelled in the Harefield Yard CNVIS (Doc No: 6-0052-210-EEC-J1-AS-0001).

2.3 Signalling Works W.009A (Underbore Installation)

2.3.1 Scope

The additional work area required for Harefield Yard (Figure 4) forms part of the wider scope associated at the Harefield Yard clearances enhancement site and will enable signalling works.

The endorsed Harefield Yard CNVIS did not assess underbore installation activity but for the comparison the CNVIS Addendum has considered it against the CNVIS signalling works under work scenario. The proposed works under the CNVIS Addendum include the following:

Activity

- Underbore installation

Plant and equipment

- Excavator (10t)
- Directional Drill
- NDD Vacuum truck
- Truck – tipper (5t)
- Wacker packer

Construction hours

- Standard approved construction hours:

- 7am to 6pm Monday to Friday, inclusive
- 7am to 6pm Saturday
- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays
- Evening OOH:
 - 6pm to 10pm Monday to Sunday (including Public Holidays)
- Night OOH:
 - 10pm to 7am Monday to Saturday
 - 10pm to 8am Sunday (including Public Holidays)

2.3.2 Assessment

An additional work area, as per the Harefield Yard Consistency Assess (Doc No:), compared to the Harefield Yard CNVIS has been identified, and assessed as per methodology, and plant and equipment noted in Section 2.3.1 above. SLR Predict, the A2I noise and vibration management tool, has been utilised to assess this additional work area. The plant and equipment list (as noted above) has been considered as a worst-case scenario within a 15-minute assessment period.

The operating time (utilisation %) of each plant and equipment is representative to site working conditions.

2.3.3 Results

The SLR Predict results are presented in Appendix C, for night out of hours, as the most affected period.

Table 5 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.009 exceedances identified in the Harefield Yard CNVIS
- W.009A exceedances identified in the SLR Predict results for the additional work areas shown in Figure 4.

TABLE 5: EXCEEDANCE COMPARISONS FOR W.009A

ASSESSMENT RESULTS (NIGHT OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	W.009 CNVIS	SLR Predict – W.009A additional area
Total Lw (dBA)	104	113
Noticeable (1-5 dB)	0	0
Clearly Audible (6-15 dB)	1	0
Moderately Intrusive (16-25 dB)	0	0
Highly Intrusive (>25 dB)	0	0
Above Sleep Disturbance (>Screening level)	1	0
Above Sleep Awake (>65 dB)	0	0

Although Table 5 shows an overall increase in the total Lw (dBA) from 104 to 113 the intensity of impacts resulting from the current proposed scenario (last column) decreased in the number of receivers experiencing a clearly audible (6-15 dB exceedance) and 'Above Sleep Disturbance'.

Underbore installation was not previously included as an activity within the signalling scope of works. Therefore, the additional activity, change in plant and equipment required for underbore installation as well as increased distance of the activity to the nearest sensitive receivers is the likely reason for the decrease in impacts to what was modelled in the Harefield Yard CNVIS (Doc No: 6-0052-210-EEC-J1-AS-0001) for W.009 Signalling Works.

2.4 Signalling Works W.009B

2.4.1 Scope

The additional work area required for Harefield Yard (Figure 5) forms part of the wider scope associated at the Harefield Yard clearances enhancement site and will enable signalling works.

The endorsed Harefield Yard CNVIS has assessed signalling works under work scenario W.009. The proposed works under the CNVIS Addendum include the following:

Activity

- Installation of signalling infrastructure

Plant and equipment

- Light vehicle
- Excavator (10t)
- NDD Vacuum truck
- Truck – tipper
- Wacker packer

Construction hours

- Standard approved construction hours:
 - 7am to 6pm Monday to Friday, inclusive
 - 7am to 6pm Saturday
- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays
- Evening OOH:
 - 6pm to 10pm Monday to Sunday (including Public Holidays)
- Night OOH:
 - 10pm to 7am Monday to Saturday
 - 10pm to 8am Sunday (including Public Holidays)

2.4.2 Assessment

An additional work area, as per the Harefield Yard Consistency Assessment (Doc No: 6-0052-210-EAP-J1-AS-0001), compared to the Harefield Yard CNVIS has been identified, and assessed as per methodology, and plant and equipment noted in Section 2.4.1 above. SLR Predict, the A2I noise and vibration management tool, has been utilised to assess this additional work area. The plant and equipment list (as noted above) has been considered as a worst-case scenario within a 15-minute assessment period.

The operating time (utilisation %) of each plant and equipment is representative to site working conditions.

2.4.3 Results

The SLR Predict results are presented in Appendix D, for approved standard hours, as the most affected period.

Table 6 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.009 exceedances identified in the Harefield Yard CNVIS
- W.009B exceedances identified in the SLR Predict results for the additional work areas shown in Figure 5.

TABLE 6: EXCEEDANCE COMPARISONS FOR W.009B

ASSESSMENT RESULTS (NIGHT OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	W.009CNVIS	SLR Predict – W.009B additional area
Total Lw (dBA)	104	116
Noticeable (1-5 dB)	0	1
Clearly Audible (6-15 dB)	1	2
Moderately Intrusive (16-25 dB)	0	0
Highly Intrusive (>25 dB)	0	0
Above Sleep Disturbance (>Screening level)	1	N/A
Above Sleep Awake (>65 dB)	0	N/A

Table 6 shows an overall increase in the Total Lw (dBA) from 104 to 116 in the intensity of impacts resulting from the current proposed scenario (last column) and a slight increase in the number of receivers experiencing a noticeable level of noticeable (1-5 dB) and clearly audible (6-15 dB) exceedance.

2.5 Site Establishment – Access Track and Laydown Yard / Stockpile Area W.001B (Track and Civil Works)

2.5.1 Scope

The additional work area required for Harefield Yard (Figure 6) forms part of the wider scope associated at the Harefield Yard clearances enhancement site and will enable track and civil works.

The endorsed Harefield Yard CNVIS has assessed site establishment under work scenario W.001. The proposed works under the CNVIS Addendum include the following:

Activity

- Access road and laydown/stockpile construction
- Delivery of materials/equipment

Plant and equipment

- Front End Loader
- Truck and Dog
- Excavator (20T)
- Light Vehicle

Construction hours

- Standard approved construction hours:
 - 7am to 6pm Monday to Friday, inclusive
 - 7am to 6pm Saturday
- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays
- Evening OOH:
 - 6pm to 10pm Monday to Sunday (including Public Holidays)
- Night OOH:
 - 10pm to 7am Monday to Saturday
 - 10pm to 8am Sunday (including Public Holidays)

2.5.2 Assessment

An additional work area, as per the Harefield Yard Consistency Assessment (Doc No: 6-0052-210-EAP-J1-AS-0001), compared to the Harefield Yard CNVIS has been identified, and assessed as per methodology, and plant and equipment noted in Section 2.5.1 above. SLR Predict, the A2I noise and vibration management tool, has been utilised to assess this additional work area. The plant and equipment list (as noted above) has been considered as a worst-case scenario within a 15-minute assessment period.

The operating time (utilisation %) of each plant and equipment is representative to site working conditions.

2.5.3 Results

The SLR Predict results are presented in Appendix E, for approved standard hours, as the most affected period.

Table 7 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.001 exceedances identified in the Harefield Yard CNVIS
- W.001B exceedances identified in the SLR Predict results for the additional work areas shown in Figure 6.

TABLE 7: EXCEEDANCE COMPARISONS FOR W.001B

ASSESSMENT RESULTS (DAYTIME OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	W.001 CNVIS	SLR Predict – W.001B additional area
Total Lw (dBA)	112	116
Noticeable (1-5 dB)	4	0
Clearly Audible (6-15 dB)	1	0
Moderately Intrusive (16-25 dB)	0	3
Highly Intrusive (>25 dB)	0	2
Above Sleep Disturbance (>Screening level)	N/A	5
Above Sleep Awake (>65 dB)	N/A	2

Table 7 shows an overall increase in the intensity of impacts resulting from the current proposed scenario (last column) including an increase Total Lw (dBA) as a result of the increased work area and total Lw (dBA). As well as an increase in the number of receivers experiencing a highly intrusive level of noise (> 25 dB exceedance) and moderately intrusive (16-25 dB exceedance), there are also five receivers above the 'above sleep disturbance' and two receivers above the 'above sleep awake' criterion in comparison to the endorsed CNVIS.

2.6 Track Work – Peak (W.004)

2.6.1 Scope

The additional work area required for Harefield Yard (Figure 7) forms part of the wider scope associated at the Harefield Yard clearances enhancement site and will enable signalling works.

The endorsed Harefield Yard CNVIS has assessed Track Work - Peak under work scenario W.004, and included the following:

Activity

- Track Work - Peak

Plant and equipment

- Centrifugal fan
- Compactor (plate)
- Compressor
- Crane (mobile)
- Elevated Work Platform
- Excavator (20t)
- Front End Loader
- Generator
- Grinder
- Hand tools – electric
- Hi-rail Crane
- Hi-rail Excavator (20t)
- Hi-rail Trolley
- Hydraulic/pneumatic tools
- Light Vehicles
- Lighting Towers
- PEM-LEM
- Vibratory Roller (7-13t)
- Saw Rail
- Tele Handler
- Truck – medium rigid
- Water cart

Construction hours

- Standard approved construction hours:
 - 7am to 6pm Monday to Friday, inclusive
 - 7am to 6pm Saturday
- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays

- Evening OOH:
 - 6pm to 10pm Monday to Sunday (including Public Holidays)
- Night OOH:
 - 10pm to 7am Monday to Saturday
 - 10pm to 8am Sunday (including Public Holidays)

2.6.2 Assessment

An additional work area, as per the Harefield Yard Consistency Assessment (Doc No: 6-0052-210-EAP-J1-AS-0001), compared to the Harefield Yard CNVIS has been identified, and assessed as per methodology, and plant and equipment noted in Section 2.6.1 above. SLR Predict, the A2I noise and vibration management tool, has been utilised to assess this additional work area. The plant and equipment list (as noted above) has been considered as a worst-case scenario within a 15-minute assessment period.

The operating time (utilisation %) of each plant and equipment is representative to site working conditions.

2.6.3 Results

The SLR Predict results are presented in Appendix F, for night out of hours, as the most affected period.

Table 8 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.004 exceedances identified in the Harefield Yard CNVIS
- W.004A exceedances identified in the SLR Predict results for the additional work areas shown in Figure 7.

TABLE 8: EXCEEDANCE COMPARISONS FOR W.004A

ASSESSMENT RESULTS (NIGHT OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	W.004 CNVIS	SLR Predict – W.004A additional area
Total Lw (dBA)	119	119
Noticeable (1-5 dB)	0	0
Clearly Audible (6-15 dB)	2	2
Moderately Intrusive (16-25 dB)	1	2
Highly Intrusive (>25 dB)	2	1
Above Sleep Disturbance (>Screening level)	5	5
Above Sleep Awake (>65 dB)	3	2

Table 8 shows an overall similar intensity of impacts in comparison to the endorsed CNVIS resulting from the current proposed scenario (last column). There is a slight increased number of receivers experiencing a moderately intrusive level of noise (6 - 10 dB exceedance) by one receiver, and a decrease by one receiver in the highly intrusive (>25 dB exceedance) and above sleep awake noise levels.

2.7 Track Work – Typical W.005

2.7.1 Scope

The additional work area required for Harefield Yard (Figure 8) forms part of the wider scope associated at the Harefield Yard clearances enhancement site and will enable track works.

The endorsed Harefield Yard CNVIS has assessed track works – typical under work scenario W.005, and included the following:

Activity

- Track Work - Typical

Plant and equipment

- Centrifugal fan
- Compressor
- Crane (mobile)
- Elevated Work Platform
- Excavator (20t)
- Front End Loader
- Generator
- Grinder
- Hand tools – electric
- Hi-rail Crane
- Hi-rail Excavator (20t)
- Hi-rail Trolley
- Light Vehicles
- Lighting Towers
- PEM-LEM
- Tele Handler
- Truck – medium rigid
- Water cart

Construction hours

- Standard approved construction hours:
 - 7am to 6pm Monday to Friday, inclusive
 - 7am to 6pm Saturday
- Daytime out-of-hours (OOH)
 - 8am to 6pm Sunday and Public Holidays
- Evening OOH:
 - 6pm to 10pm Monday to Sunday (including Public Holidays)
- Night OOH:
 - 10pm to 7am Monday to Saturday
 - 10pm to 8am Sunday (including Public Holidays)

2.7.2 Assessment

An additional work area, as per the Harefield Yard Consistency Assessment (Doc No: 6-0052-210-EAP-J1-AS-0001), for the Harefield Yard CNVIS has been identified, and assessed as per methodology, and plant and equipment noted in Section 2.7.1 above. SLR Predict, the A21 noise and vibration management tool, has been utilised to assess this additional work

area. The plant and equipment list (as noted above) has been considered as a worst-case scenario within a 15-minute assessment period.

The operating time (utilisation %) of each plant and equipment is representative to site working conditions.

2.7.3 Results

The SLR Predict results are presented in Appendix H, for approved standard hours, as the most affected period.

Table 9 provides a summary of the exceedances identified through various assessments. It compares the following:

- W.005 exceedances identified in the Harefield Yard CNVIS
- W.005A exceedances identified in the SLR Predict results for the additional work areas shown in Figure 8.

TABLE 9: EXCEEDANCE COMPARISONS FOR W.005A

ASSESSMENT RESULTS (NIGHT OOH)	NUMBER OF RESIDENTIAL RECEIVERS WITH NML EXCEEDANCE	
	W.005 CNVIS	SLR Predict – W.005A additional area
Total Lw (dBA)	114	114
Noticeable (1-5 dB)	2	1
Clearly Audible (6-15 dB)	1	3
Moderately Intrusive (16-25 dB)	1	1
Highly Intrusive (>25 dB)	1	0
Above Sleep Disturbance (>Screening level)	4	3
Above Sleep Awake (>65 dB)	2	1

Table 9 shows an overall similar intensity of impacts resulting from the current proposed scenario (last column). There is a slight increased number of receivers experiencing a clearly audible level of noise (6 - 10 dB exceedance), all other noise categories remained the same or reduced in the number of receivers impacted.

3 VIBRATION ASSESSMENT

3.1 Signalling Activities

There are no vibration intensive plant and equipment proposed as part of signalling works scenarios W.001A, W.008A, whilst W.009A and W.009B include wacker packers, which generate ground vibration, albeit minor. No vibration impacts are expected W.001A, W.008A and have been confirmed as no impact for W.009A and W.009B (refer Appendix D).

3.2 Track Works

There are no vibration intensive plant and equipment proposed as part of W.001B and W.005A. Therefore, no vibration impacts are expected.

3.3 Track Works – Peak (W.004A)

As noted above in Section 2.6, a vibratory roller (7-13t) will be utilised as part of the site establishment at Harefield Yard.

The potential vibration impacts associated with W.004A have been assessed utilising SLR Predict. A comparison of the Transport CNVG-PTI minimum working distances for cosmetic damage and human comfort (TfNSW CNVG-PTI) against the SLR Predict results, has been summarised and presented in Table 10 below:

TABLE 10: VIBRATION CRITERIA EXCEEDANCES FOR W.004A

VIBRATION CRITERIA	VIBRATION CRITERIA	NUMBER OF RECEIVERS WITH VIBRATION CRITERIA EXCEEDANCE ¹
	Vibratory Roller 7-13 tonne (TfNSW's CNVG PTI)	SLR Predict – W.004A
Cosmetic Damage (Residential and Light Commercial)	15m	0 properties
Cosmetic Damage for Unsound Heritage	31m	0 properties
Cosmetic Damage (Industrial and Heavy Commercial)	8m	0 properties
Human Comfort	100m	4 properties

Note 1: Some addresses have both residential and non-residential uses and therefore have been accounted for in each vibration criteria category triggered.

Table 10 shows the number of properties with the potential to exceed vibration criteria for cosmetic damage and human comfort. The four structures identified in this CNVIS Addendum for potential exceedance for human comfort were also identified in the endorsed CNVIS. No structures have been identified to have the potential for cosmetic damage.

The SLR Predict results are presented under Appendix G.

4 CONCLUSION

4.1 Mitigation and Management Measures

As this Addendum forms part of the endorsed CNVIS for Harefield Yard, the same noise and vibration management measures apply as noted in Section 8 of the CNVIS.

4.2 Additional Mitigation Measures

As noted in Figure 9 and under Appendix A through to Appendix G, the SLR Predict results include a section on all applicable additional mitigation measures. These additional mitigation measures will be implemented where appropriate.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
			>2 consecutive rest periods	CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
			>2 consecutive sleep periods	CO1, CO2, RO, AO
	>25	Highly intrusive	Any	CO1, CO2, RO
			>2 consecutive sleep periods	CO1, CO2, RO, AO, AltA

FIGURE 9: ADDITIONAL MITIGATION MEASURES MATRIX



APPENDICES



APPENDIX A

SLR Predict Results (W.001A) - Noise



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts have been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details	
Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield - Signalling (W.001A)
Assessment Number	518
Stage	A2I Construction
Permit Number	
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Day - out of hours

Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Site Establishment - Laydown and Access (Height: Ground)	Total: 116		
Front End Loader 50% operation	113	1	No
Light Vehicle (accelerating) 25% operation	95	5	No
Lighting Tower 100% operation	80	1	No
Truck - road truck/ truck & dog (30T) 75% operation	108	6	No
Excavator - Tracked (20T) 50% operation	105	1	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



		Residential	Non-Residential
	Highly Intrusive	0 property	0 property
	Moderately Intrusive	0 property	0 property
	Clearly Audible	0 property	0 property
	Noticeable	3 properties	0 property

Legend	
	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Facade/Floor: Show, Minimum floor to show: 0

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
1912 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	46	48	2	Noticeable

Results by Receiver

Facade/Floor: Show, Minimum floor to show: 0

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
1922 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	46	47	1	Noticeable
1296 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	46	47	1	Noticeable

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
			>2 consecutive rest periods	CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
			>2 consecutive sleep periods	CO1, CO2, RO, AO
	>25	Highly intrusive	Any	CO1, CO2, RO
			>2 consecutive sleep periods	CO1, CO2, RO, AO, AltA
Vibration - Additional Mitigation Measures Matrix				
Time Period	Duration	Exceedance of 'preferred' value		Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2		CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2		CO1, CO2, RO

OOHW Night Period			
Mon-Sat 10pm-7am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA
Sun 10pm-8am			

Additional Mitigation Measures	
Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types			
Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building



APPENDIX B

SLR Predict Results (W.008A) - Noise



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts have been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details	
Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield Gantry Removal
Assessment Number	523
Stage	A2I Construction
Permit Number	
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Night - out of hours

Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Gantry Removal (Height: Ground)	Total: 101		
Crane Franna (20 tonne) 80% operation	98	1	No
Truck (flatbed) 50% operation	95	1	No
Elevated Work Platform 100% operation	97	1	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



		Residential	Non-Residential
	Highly Intrusive	0 property	0 property
	Moderately Intrusive	0 property	0 property
	Clearly Audible	0 property	0 property
	Noticeable	0 property	0 property
	Above Sleep Disturbance	0 property	0 property
	Above Sleep Awake	0 property	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Facade/Floor: Show, Minimum floor to show: 0

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
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No results

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any >2 consecutive rest periods	CO1, CO2 CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
			>2 consecutive sleep periods	CO1, CO2, RO, AO
	>25	Highly intrusive	Any >2 consecutive sleep periods	CO1, CO2, RO CO1, CO2, RO, AO, AltA
Vibration - Additional Mitigation Measures Matrix				
Time Period	Duration	Exceedance of 'preferred' value		Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2		CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2		CO1, CO2, RO

OOHW Night Period			
Mon-Sat 10pm-7am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA
Sun 10pm-8am			

Additional Mitigation Measures	
Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types			
Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building

APPENDIX C

SLR Predict Results (W.009A) – Noise & Vibration



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts are been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details

Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield Underbore installation (W.009A)
Assessment Number	524
Stage	A2I Construction
Permit Number	
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Night - out of hours

Equipment Details

Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Underbore Installation (Height: Ground)	Total: 113		
Directional Drill 100% operation	101	1	No
Truck - vacuum (NDD or non-destructive digger) 100% operation	109	1	No
Light Vehicle (accelerating) 25% operation	95	5	No
Excavator - Tracked (10T) 100% operation	100	2	No
Truck - tipper small (5T) 30% operation	97	1	No
Wacker Packer 100% operation	105	2	No

Note 1: Equipment classed as 'annoying' in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



		Residential	Non-Residential
	Highly Intrusive	0 property	0 property
	Moderately Intrusive	0 property	0 property
	Clearly Audible	0 property	0 property
	Noticeable	0 property	0 property
	Above Sleep Disturbance	0 property	0 property
	Above Sleep Awake	0 property	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Facade/Floor: Show, Minimum floor to show: 0

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
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No results

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix

Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any >2 consecutive rest periods	CO1, CO2 CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any >2 consecutive sleep periods	CO1, CO2 CO1, CO2, RO, AO
	>25	Highly intrusive	Any >2 consecutive sleep periods	CO1, CO2, RO CO1, CO2, RO, AO, AltA

Vibration - Additional Mitigation Measures Matrix

Time Period	Duration	Exceedance of 'preferred' value	Exceedance of 'maximum' value
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OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Night Period Mon-Sat 10pm-7am Sun 10pm-8am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA

Additional Mitigation Measures

Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types

Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
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OCC	Other Child Care	OPB	Other Public Building



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts are been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details

Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield Underbore installation
Assessment Number	524
Stage	A2I Construction
Permit Number	
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Vibration

Equipment Details

Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Underbore Installation (Height: Ground)	Total: 113		
Directional Drill 100% operation	101	1	No
Truck - vacuum (NDD or non-destructive digger) 100% operation	109	1	No
Light Vehicle (accelerating) 25% operation	95	5	No
Excavator - Tracked (10T) 100% operation	100	2	No
Truck - tipper small (5T) 30% operation	97	1	No
Wacker Packer 100% operation	105	2	No

Note 1: Equipment classed as 'annoying' in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



		Residential	Non-Residential
	Cosmetic Damage	0 property	0 property
	Human Comfort	0 property	0 property
	Cosmetic Damage for Unsound Heritage	0 property	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Address	Land Use	Vibration Category
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No results

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix

Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any >2 consecutive rest periods	CO1, CO2 CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any >2 consecutive sleep periods	CO1, CO2 CO1, CO2, RO, AO
	>25	Highly intrusive	Any >2 consecutive sleep periods	CO1, CO2, RO CO1, CO2, RO, AO, AltA

Vibration - Additional Mitigation Measures Matrix

Time Period	Duration	Exceedance of 'preferred' value	Exceedance of 'maximum' value
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OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Night Period Mon-Sat 10pm-7am Sun 10pm-8am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA

Additional Mitigation Measures

Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types

Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building

APPENDIX D

SLR Predict Results (W.009B) – Noise & Vibration



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts are been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details	
Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield - Signalling
Assessment Number	518
Stage	A2I Construction
Permit Number	
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Night - out of hours

Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Site Establishment - Laydown and Access (Height: Ground)	Total: 116		
Front End Loader 50% operation	113	1	No
Light Vehicle (accelerating) 25% operation	95	5	No
Truck - road truck/ truck & dog (30T) 75% operation	108	6	No
Excavator - Tracked (20T) 50% operation	105	1	No
Water Cart 75% operation	105	1	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



		Residential	Non-Residential
	Highly Intrusive	0 property	0 property
	Moderately Intrusive	0 property	0 property
	Clearly Audible	2 properties	0 property
	Noticeable	1 property	0 property
	Above Sleep Disturbance	0 property	0 property
	Above Sleep Awake	0 property	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Facade/Floor: Show, Minimum floor to show: 0

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
1912 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	48	6	Clearly Audible
1922 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	48	6	Clearly Audible
1296 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	47	5	Noticeable

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any >2 consecutive rest periods	CO1, CO2 CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any >2 consecutive sleep periods	CO1, CO2 CO1, CO2, RO, AO
	>25	Highly intrusive	Any >2 consecutive sleep periods	CO1, CO2, RO CO1, CO2, RO, AO, AltA
Vibration - Additional Mitigation Measures Matrix				
Time Period	Duration	Exceedance of 'preferred' value		Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2		CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2		CO1, CO2, RO

OOHW Night Period			
Mon-Sat 10pm-7am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA
Sun 10pm-8am			

Additional Mitigation Measures	
Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types			
Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts are been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details

Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield - Signalling
Assessment Number	518
Stage	A2I Construction
Permit Number	
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Vibration

Equipment Details

Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Site Establishment - Laydown and Access (Height: Ground)	Total: 116		
Front End Loader 50% operation	113	1	No
Light Vehicle (accelerating) 25% operation	95	5	No
Truck - road truck/ truck & dog (30T) 75% operation	108	6	No
Excavator - Tracked (20T) 50% operation	105	1	No
Water Cart 75% operation	105	1	No

Note 1: Equipment classed as 'annoying' in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



		Residential	Non-Residential
	Cosmetic Damage	0 property	0 property
	Human Comfort	0 property	0 property
	Cosmetic Damage for Unsound Heritage	0 property	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Address	Land Use	Vibration Category
No results		

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix

Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any >2 consecutive rest periods	CO1, CO2 CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any >2 consecutive sleep periods	CO1, CO2 CO1, CO2, RO, AO
	>25	Highly intrusive	Any >2 consecutive sleep periods	CO1, CO2, RO CO1, CO2, RO, AO, AltA

Vibration - Additional Mitigation Measures Matrix

Time Period	Duration	Exceedance of 'preferred' value	Exceedance of 'maximum' value
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OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2	CO1, CO2, RO
OOHW Night Period Mon-Sat 10pm-7am Sun 10pm-8am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA

Additional Mitigation Measures

Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types

Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building

APPENDIX E

SLR Predict Results (W.001B) - Noise



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts have been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details	
Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield Site Establishment Track and Civi (W.001B)I
Assessment Number	526
Stage	A2I Construction
Permit Number	
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Night - out of hours

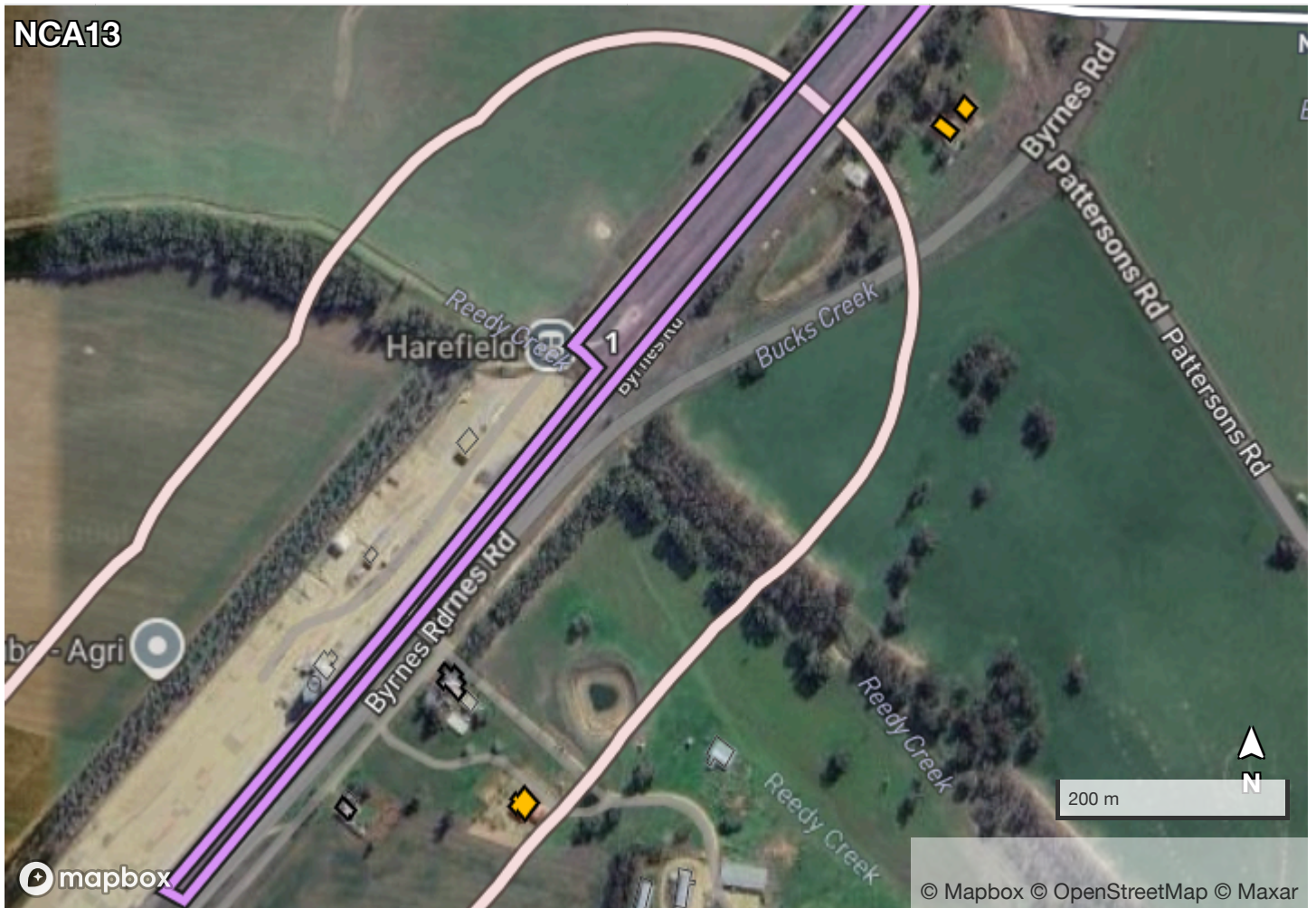
Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Track Works laydown yard (Height: Ground)	Total: 116		
Front End Loader 75% operation	113	1	No
Truck - road truck/ truck & dog (30T) 50% operation	108	6	No
Excavator - Tracked (20T) 50% operation	105	2	No
Light Vehicle (accelerating) 25% operation	95	4	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results

NCA13



Residential

Non-Residential

	Highly Intrusive	2 properties	0 property
	Moderately Intrusive	3 properties	0 property
	Clearly Audible	0 property	0 property
	Noticeable	0 property	0 property
	Above Sleep Disturbance	5 properties	0 property
	Above Sleep Awake	2 properties	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Facade/Floor: Show, Minimum floor to show: 0

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
1296 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	72	30	Highly Intrusive Above Sleep Dist Above Sleep Awake
1912 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	69	27	Highly Intrusive Above Sleep Dist Above Sleep Awake
1992 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	63	21	Moderately Intrusive Above Sleep Dist
1992 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	62	20	Moderately Intrusive Above Sleep Dist
1922 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	60	18	Moderately Intrusive Above Sleep Dist

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any >2 consecutive rest periods	CO1, CO2 CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any >2 consecutive sleep periods	CO1, CO2 CO1, CO2, RO, AO
	>25	Highly intrusive	Any >2 consecutive sleep periods	CO1, CO2, RO CO1, CO2, RO, AO, AltA
Vibration - Additional Mitigation Measures Matrix				
Time Period	Duration	Exceedance of 'preferred' value		Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2		CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2		CO1, CO2, RO

OOHW Night Period			
Mon-Sat 10pm-7am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA
Sun 10pm-8am			

Additional Mitigation Measures	
Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types			
Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building

APPENDIX F

SLR Predict Results (W.004A) – Noise



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts are been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details	
Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield Track Work - Peak (W.004A)
Assessment Number	517
Stage	A2I Construction
Permit Number	N/A
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Night - out of hours

Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Track - Peak (Height: Ground)	Total: 119		
Centrifugal fan 100% operation	90	1	No
Compactor (plate) 100% operation	104	1	No
Compressor 50% operation	109	1	No
Crane (mobile) 30% operation	104	1	No
Excavator - Tracked (20T) 50% operation	105	1	No
Front End Loader 50% operation	113	1	No
Generator - attenuated 100% operation	92	1	No
Grinder 30% operation	105	1	No
Hand tools (electric) 75% operation	102	2	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

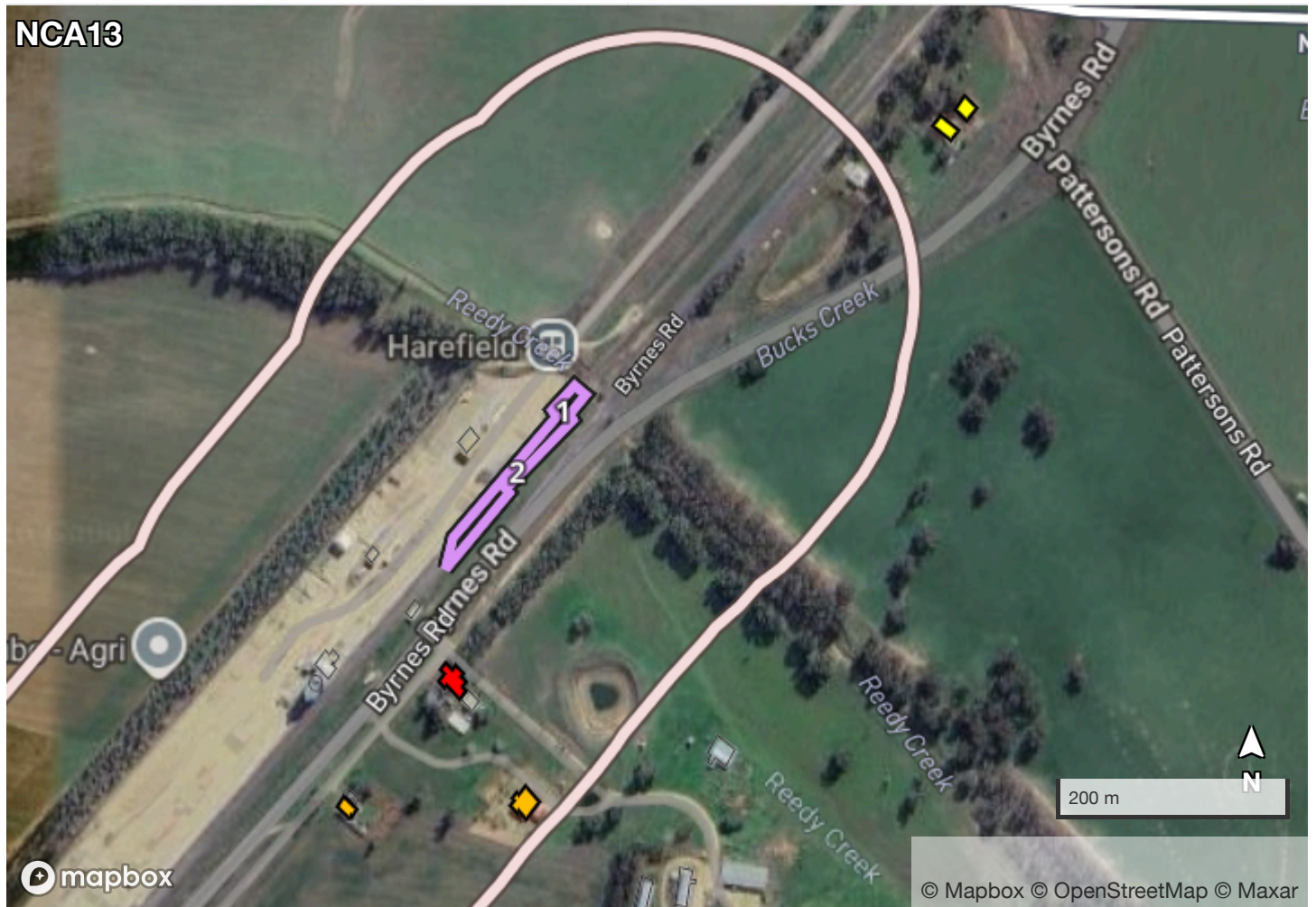
Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
Hi-Rail Crane 30% operation	104	1	No
Hi-Rail Excavator (20T) 50% operation	105	1	No
Hi-Rail Truck/Trolley 25% operation	103	1	No
Hydraulic / Pneumatic Tools 75% operation	116	1	No
Light Vehicle (accelerating) 25% operation	95	2	Yes
Lighting Tower 100% operation	80	2	No
PEM-LEM 50% operation	100	1	No
Roller - vibratory (7-13t) 100% operation	109	1	No
Saw - rail 25% operation	118	1	No
Telescopic Handler 50% operation	99	1	No
Truck - medium rigid (20T) 25% operation	103	2	No
Water Cart 75% operation	105	1	No
2: Track - Peak (Vibration) (Height: Ground)	Total: 109		
Roller - vibratory (7-13t) 100% operation	109	1	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results

NCA13



Residential

Non-Residential

	Highly Intrusive	1 property	0 property
	Moderately Intrusive	2 properties	0 property
	Clearly Audible	2 properties	0 property
	Noticeable	0 property	0 property
	Above Sleep Disturbance	5 properties	0 property
	Above Sleep Awake	2 properties	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Facade/Floor: Show, Minimum floor to show: 0

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
1296 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	70	28	Highly Intrusive Above Sleep Dist Above Sleep Awake
1922 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	60	18	Moderately Intrusive Above Sleep Dist Above Sleep Awake
1912 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	59	17	Moderately Intrusive Above Sleep Dist
1992 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	53	11	Clearly Audible Above Sleep Dist
1992 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	52	10	Clearly Audible Above Sleep Dist

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
			>2 consecutive rest periods	CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
			>2 consecutive sleep periods	CO1, CO2, RO, AO
	>25	Highly intrusive	Any	CO1, CO2, RO
			>2 consecutive sleep periods	CO1, CO2, RO, AO, AltA
Vibration - Additional Mitigation Measures Matrix				
Time Period	Duration	Exceedance of 'preferred' value		Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2		CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2		CO1, CO2, RO

OOHW Night Period			
Mon-Sat 10pm-7am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA
Sun 10pm-8am			

Additional Mitigation Measures	
Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types			
Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building

APPENDIX G

SLR Predict Results (W.004A) - Vibration



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts have been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details	
Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name)	A2I - Albury to Illabo
Assessment Name	Harefield Track Work - Peak (W.004A)
Assessment Number	517
Stage	A2I Construction
Permit Number	N/A
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Vibration

Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: Track - Peak (Height: Ground)	Total: 119		
Centrifugal fan 100% operation	90	1	No
Compactor (plate) 100% operation	104	1	No
Compressor 50% operation	109	1	No
Crane (mobile) 30% operation	104	1	No
Excavator - Tracked (20T) 50% operation	105	1	No
Front End Loader 50% operation	113	1	No
Generator - attenuated 100% operation	92	1	No
Grinder 30% operation	105	1	No
Hand tools (electric) 75% operation	102	2	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
Hi-Rail Crane 30% operation	104	1	No
Hi-Rail Excavator (20T) 50% operation	105	1	No
Hi-Rail Truck/Trolley 25% operation	103	1	No
Hydraulic / Pneumatic Tools 75% operation	116	1	No
Light Vehicle (accelerating) 25% operation	95	2	Yes
Lighting Tower 100% operation	80	2	No
PEM-LEM 50% operation	100	1	No
Roller - vibratory (7-13t) 100% operation	109	1	No
Saw - rail 25% operation	118	1	No
Telescopic Handler 50% operation	99	1	No
Truck - medium rigid (20T) 25% operation	103	2	No
Water Cart 75% operation	105	1	No
2: Track - Peak (Vibration) (Height: Ground)	Total: 109		
Roller - vibratory (7-13t) 100% operation	109	1	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



		Residential	Non-Residential
	Cosmetic Damage	0 property	0 property
	Human Comfort	1 property	3 properties
	Cosmetic Damage for Unsound Heritage	0 property	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Address	Land Use	Vibration Category
1296 BYRNES RD, HAREFIELD NSW 2650	RES	Human Comfort
-	GAR	Human Comfort
-	GAR	Human Comfort

Results by Receiver

Address	Land Use	Vibration Category
661 HAREFIELD RD, HAREFIELD NSW 2650	GAR	Human Comfort

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

Airborne Noise - Additional Mitigation Measures Matrix				
Time Period	Exceedance of NML	Perception	Duration	Communication Category/Management Measure
OOHW Daytime Period Sunday 7am - 6pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
			>2 consecutive rest periods	CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
			>2 consecutive sleep periods	CO1, CO2, RO, AO
	>25	Highly intrusive	Any	CO1, CO2, RO
			>2 consecutive sleep periods	CO1, CO2, RO, AO, AltA
Vibration - Additional Mitigation Measures Matrix				
Time Period	Duration	Exceedance of 'preferred' value		Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2		CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2		CO1, CO2, RO

OOHW Night Period			
Mon-Sat 10pm-7am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA
Sun 10pm-8am			

Additional Mitigation Measures	
Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types			
Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building

APPENDIX H

SLR Predict Results (W.005A) - Noise



Construction Noise and Vibration Impact Statement (CNVIS)

This report presents the outcomes of detailed noise/vibration modelling relating to specific construction activities proposed on site in accordance with the methodology outlined in the *Construction Noise and Vibration Management Plan* (CNVMP) and overarching *Construction Noise and Vibration Impact Statement* (CNVIS).

Prior to detailed noise/vibration modelling being undertaken, work activities are reviewed and considered in relation to industry best practice, consistent with the requirements of the CNVMP. Consideration is first given to eliminating the noise/vibration emissions so far as reasonably practicable. Where elimination is not practicable, efforts are been made to reduce the risk as far as practical by implementing noise and vibration management measures as outlined in the overarching CNVIS and CNVMP.

Examples of these measures include selecting the quietest equipment and processes to complete the works, considering staging and periods of respite to minimise prolonged periods of noise and vibration exposure, and maximising distances between construction activities and sensitive receivers.

Consultation with Affected Receivers

In accordance with CoA E78, the CNVIS must include specific mitigation measures identified through consultation with affected sensitive land user(s) and the mitigation measures must be implemented for the duration of the Work. Details of this consultation are provided in the overarching CNVIS for each enhancement site.

Predicted Noise Levels

The assessment presents the highest predicted level at each receiver building, considering predictions at each floor and façade from all potential work areas. The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within each work area. The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that is likely to occur for each work scenario.

Assessment Details	
Author Name	
Author Email	noiseassessments@martinus.com.au
Author Organisation	Martinus Rail
Project Name	A2I - Albury to Illabo
Assessment Name	Harefield Track - Typical (W.005A)
Assessment Number	528
Stage	A2I Construction
Permit Number	
Start Date	2026-09-01
End Date	2027-04-30
Assessment Period	Night - out of hours

Equipment Details			
Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
1: (Height: Ground)	Total: 114		
Centrifugal fan 100% operation	90	1	No
Compressor 50% operation	109	1	No
Crane (mobile) 30% operation	104	1	No
Elevated Work Platform 25% operation	97	1	No
Excavator - Tracked (20T) 50% operation	105	1	No
Generator - attenuated 100% operation	92	1	No
Hand tools (electric) 75% operation	102	2	No
Hi-Rail Crane 30% operation	104	1	No
Hi-Rail Excavator (20T) 50% operation	105	1	No

Note 1: Equipment classed as ‘annoying’ in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

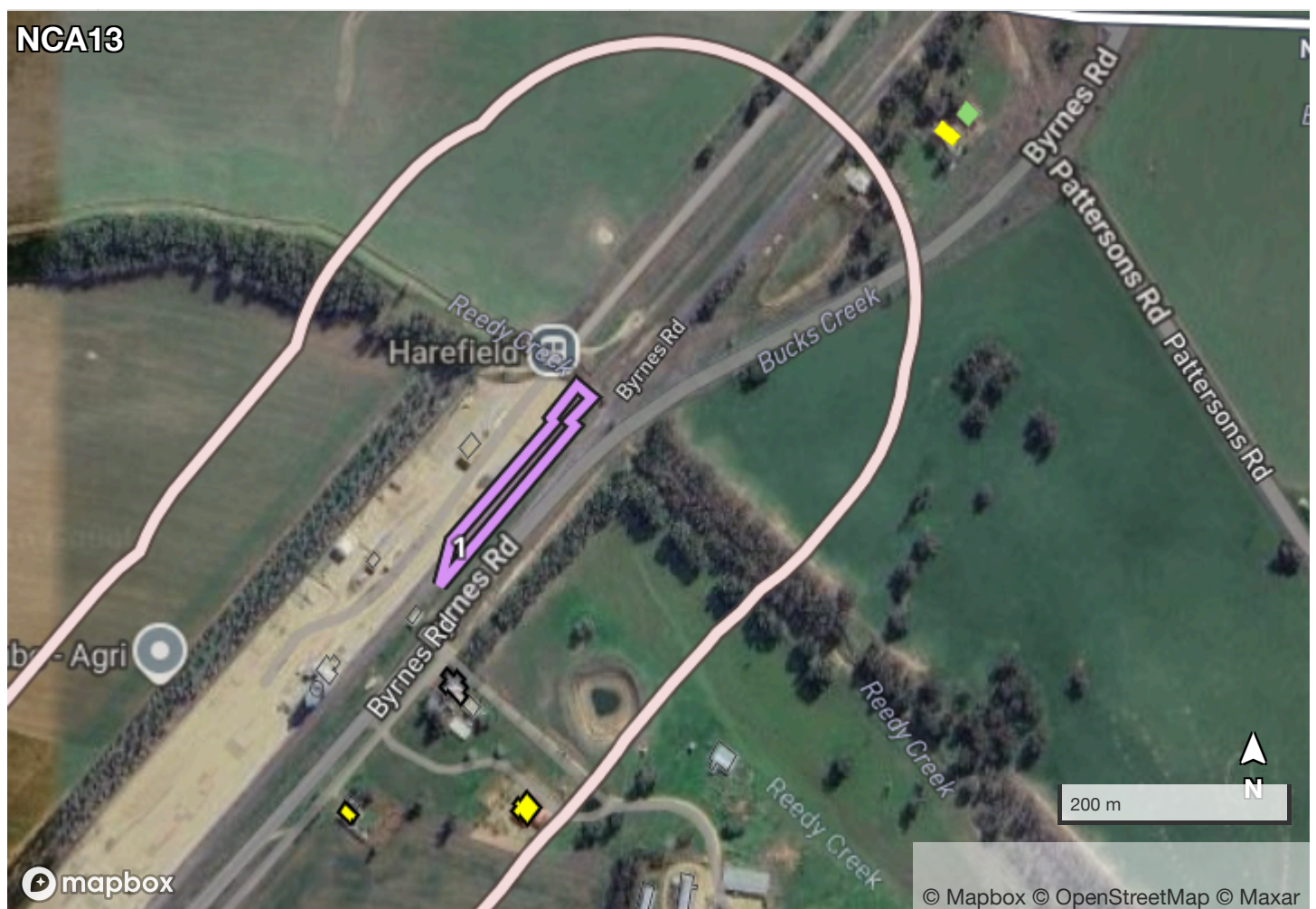
Equipment Details

Plant/Equipment	Equipment Sound Power Level (Unadjusted), dBA	Number of Units	Temporary Noise Barrier
Hi-Rail Truck/Trolley 25% operation	103	1	No
Light Vehicle (accelerating) 25% operation	95	2	No
Lighting Tower 100% operation	80	2	No
PEM-LEM 50% operation	100	1	No
Telescopic Handler 50% operation	99	1	No
Truck - medium rigid (20T) 25% operation	103	2	No
Water Cart 75% operation	105	1	No
Front End Loader 50% operation	113	1	No

Note 1: Equipment classed as 'annoying' in the *Interim Construction Noise Guideline (DECC, 2009)* include a 5 dB correction.

Note 2: Equipment sound power levels consider the mitigation measures outlined in the overarching CNVIS to provide mitigated results.

Assessment Results



Assessment Results

		Residential	Non-Residential
	Highly Intrusive	0 property	0 property
	Moderately Intrusive	1 property	0 property
	Clearly Audible	3 properties	0 property
	Noticeable	1 property	0 property
	Above Sleep Disturbance	3 properties	0 property
	Above Sleep Awake	1 property	0 property

Legend

	Project Boundary
	Work Areas
	Barriers

Results by Receiver

Facade/Floor: Show, Minimum floor to show: 0

Address	Land Use	Noise Catchment Area	Construction Noise Management Level, dBA	Predicted Noise Level, dBA	Predicted Noise Level Above Noise Management Level, dB	Noise Category
1296 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	64	22	Moderately Intrusive Above Sleep Dist Above Sleep Awake
1922 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	54	12	Clearly Audible Above Sleep Dist
1912 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	53	11	Clearly Audible Above Sleep Dist
1992 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	48	6	Clearly Audible
1992 BYRNES RD, HAREFIELD NSW 2650	RES	NCA13	42	47	5	Noticeable

Recommended Mitigation Measures

This assessment has been conducted with regard to the relevant CNVIS and CNVMP. To manage noise and vibration impacts, project specific mitigation measures may be considered such as reviewing construction staging methodology to identify opportunities to schedule intensive works during less sensitive time periods and by providing a clear process for community engagement and complaints. Likewise, the requirements and actionable items within the overarching CNVIS and CNVMP should be considered and adopted where appropriate. Following the consideration of project specific noise mitigation measures, additional noise mitigation measures to be explored are described in the Inland Rail NSW Construction Noise and Vibration Framework (CNVF) and summarised below.

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	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any	CO1, CO2
OOHW Evening Period Monday - Sunday 6pm - 10pm (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any	CO1, CO2
	>25	Highly intrusive	Any >2 consecutive rest periods	CO1, CO2 CO1, CO2, RO
OOHW Night Period Monday - Sunday 10pm - 7am (including public holidays)	<5	Noticeable	Any	CO1
	5 - 15	Clearly audible	Any	CO1
	16 - 25	Moderately intrusive	Any >2 consecutive sleep periods	CO1, CO2 CO1, CO2, RO, AO
	>25	Highly intrusive	Any >2 consecutive sleep periods	CO1, CO2, RO CO1, CO2, RO, AO, AltA
Vibration - Additional Mitigation Measures Matrix				
Time Period	Duration	Exceedance of 'preferred' value		Exceedance of 'maximum' value
OOHW Daytime Period Sunday 8am-6pm	Any	CO1, CO2		CO1, CO2, RO
OOHW Evening Period Mon-Sun 6pm-10pm	Any	CO1, CO2		CO1, CO2, RO

OOHW Night Period			
Mon-Sat 10pm-7am	Any	CO1, CO2, RO	CO1, CO2, RO, AltA
Sun 10pm-8am			

Additional Mitigation Measures	
Measure	Abbreviation
Communication (Category 1) ¹	CO1
Communication (Category 2) ²	CO2
Respite Offer ³	RO
Alternative Accommodation	AltA
Agreement with Owners	AO

Note 1: CO1: Communication to provide information on the OOHW via methods such as letter box drop, email, newsletter, media advertisements and/ or website prior to the works commencing.

Note 2: CO2: Communication should be personalised (e.g. door knock, meeting, telephone call). Contact with these residents should commence early to enable feedback to be considered by the proposal.

Note 3: RO are not applicable to non-residential receivers. RO may comprise of pre-purchased movie tickets, dinner vouchers or similar. RO can also be provided by limiting high noise generating works and allowing at least a one-hour respite period between blocks of work. Where possible, the timing of this respite should be discussed with the impacted community.

Receiver Types			
Code	Description	Code	Description
RES	Residential	OED	Other Educational
COM	Commercial	OHO	Other Hotel
IND	Industrial	OLI	Other Library
OOA	Other Outdoor Active Recreation	OME	Other Medical
OOP	Other Outdoor Passive Recreation	OPW	Other Place of Worship
OCC	Other Child Care	OPB	Other Public Building



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