

Interim Technical Note – Noise Update

Introduction

- 1.1 This Interim Technical Note provides an update to Mayer Brown's Preliminary Acoustic Appraisal of the site (dated May 2019). Since the preparation of this Preliminary Acoustic Appraisal, detailed noise monitoring at the site has been undertaken. This includes automated noise monitoring over a notional 7 day period between 3 and 10 October 2019 and attended noise measurements (in accordance with "shortened measurement procedure of the Department for Transport publication "Calculation of Road Traffic Noise").
- 1.2 The results of this survey work have been used to assist with a finer validation of earlier computational noise modelling of the site.
- 1.3 This Technical Note also responds to interim discussions with M Scott Properties Limited regarding potential options for increasing the height of the existing bunds along with the northern boundary of the site with the Northern Distributor Road (to provide additional acoustic attenuation for the development).
- 1.4 Based on these discussions, Cannon Consulting have produced proposals to increase the height of the bund along the western section of the northern site boundary to a notional height of 4m, as shown on the drawings attached at **Appendix A** of this Technical Note.
- 1.5 Our preliminary modelling noted that the existing bunds along the eastern side of the NDR assisted in minimising noise propagation across the eastern area of the site and that further increasing the height of these bunds would not provide a significant, additional material benefit.
- 1.6 This Technical Note presents the results of updated noise modelling to reflect the updated strategic landscaping proposed along the NDR.
- 1.7 The outcome of such modelling has been "tested" in accordance with the guidance of "*ProPG Professional Planning Guidance on Planning and Noise*", jointly published by the Institute of Acoustics, Association of Noise Consultants and Chartered Institute of Environmental Health and updated guidance relating to "good acoustic design principles" for the site are provided.

Computational Noise Modelling

- 1.8 The results of updated noise modelling are presents in **Figures 1** and **2** overleaf.

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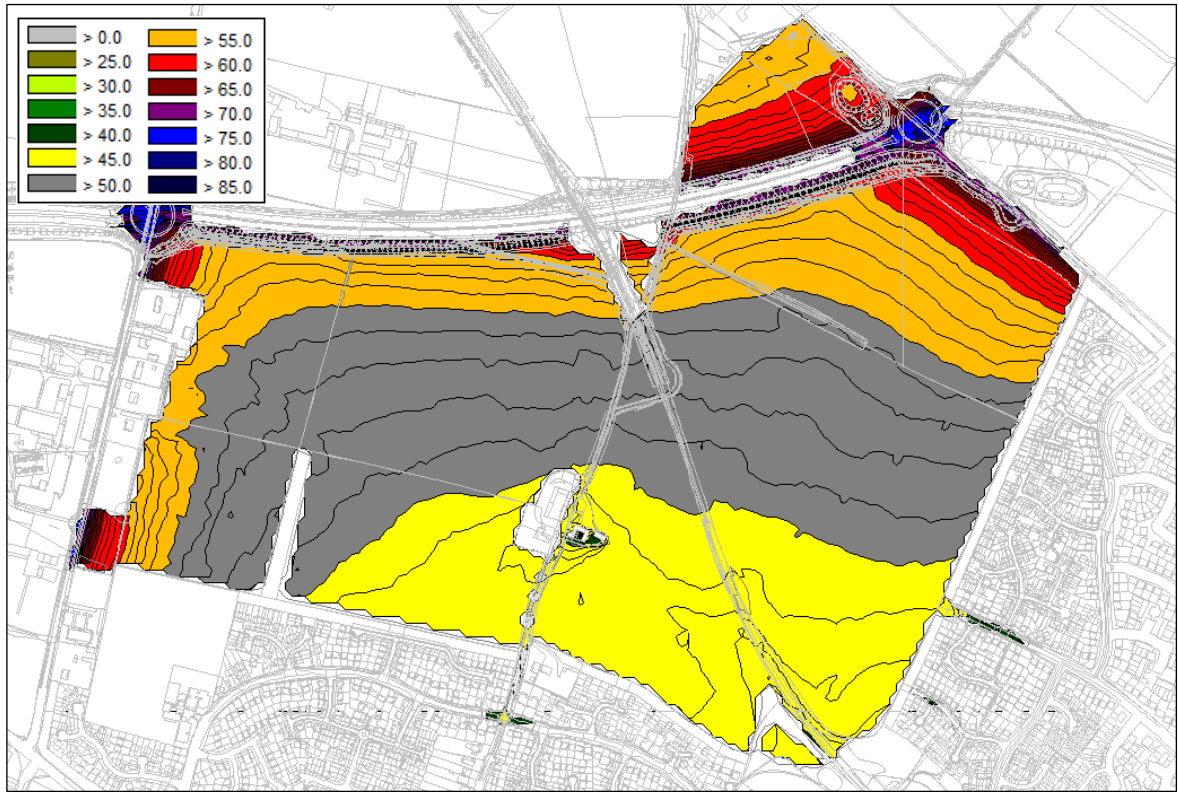


Figure 1: Daytime Noise Levels With Proposed Noise Bund



Figure 2: Night-time Noise Levels With Proposed Noise Bund

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ProPG Stage 1 Assessment

1.9 **Figure 3 and 4** below assess the noise risk of the site in accordance with ProPG Stage guidance.



Figure 1: Initial Daytime Noise Risk Assessment

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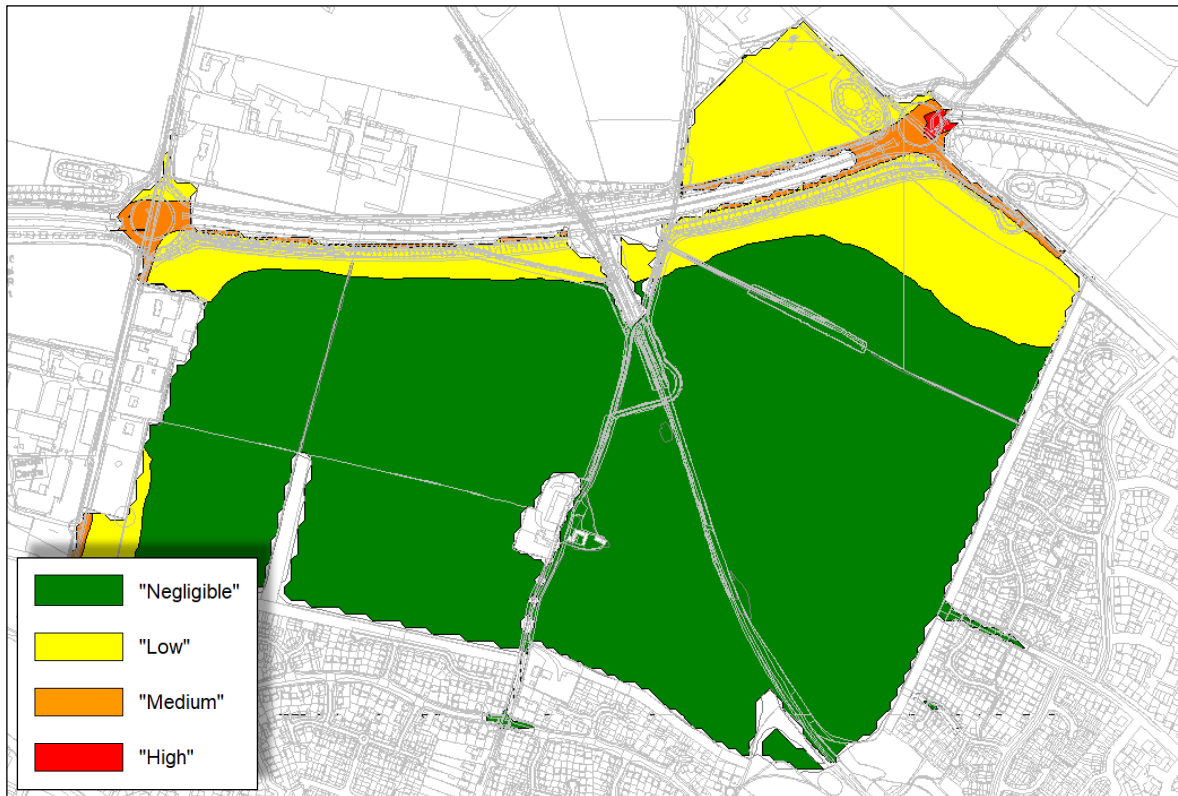


Figure 4: Initial Night-time Noise Risk Assessment

1.10 The above modelling shows that noise levels throughout the developable areas of the site are generally classified as having a “negligible” or “low” risk.

1.11 For “negligible” risk sites, ProPG states:

“These noise levels indicate that the development site is likely to be acceptable from a noise perspective, and the application need not normally be delayed on noise grounds.”

1.12 For “low” risk sites, ProPG states:

At low noise levels, the site is likely to be acceptable from a noise perspective provided that a good acoustic design process is followed and is demonstrated in an ADS which confirms how the adverse impacts of noise will be mitigated and minimised in the finished development.

1.13 It can be seen from the noise risk assessment that the daytime risk at this site is generally greater than the night-time risk. In light of this, the implementation of good acoustic design principles should focus on the ability of the site to provide good quality external residential amenity space. (Noise intrusion into dwellings can normally be readily controlled through the appropriate specification of external building elements and sites categorised as having

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a negligible or low noise risk are unlikely to experience significant adverse impacts, even when windows are open).

External Amenity Space

1.14 ProPG states:

“If external amenity spaces are an intrinsic part of the overall design, the acoustic environment of those spaces should be considered so that they can be enjoyed as intended”.

The acoustic environment of external amenity areas that are an intrinsic part of the overall design should always be assessed and noise levels should ideally not be above the range 50 – 55 dB $L_{Aeq,16hr}$.”

1.15 **Figure 5** below presents the daytime noise modelling of the site, re-categorised into areas at or below the suggested ProPG upper limit of 55dB $L_{Aeq,16hour}$ (shown in **“GREEN”**) and noise levels above 55dB $L_{Aeq,16hour}$ (shown in **“RED”**).

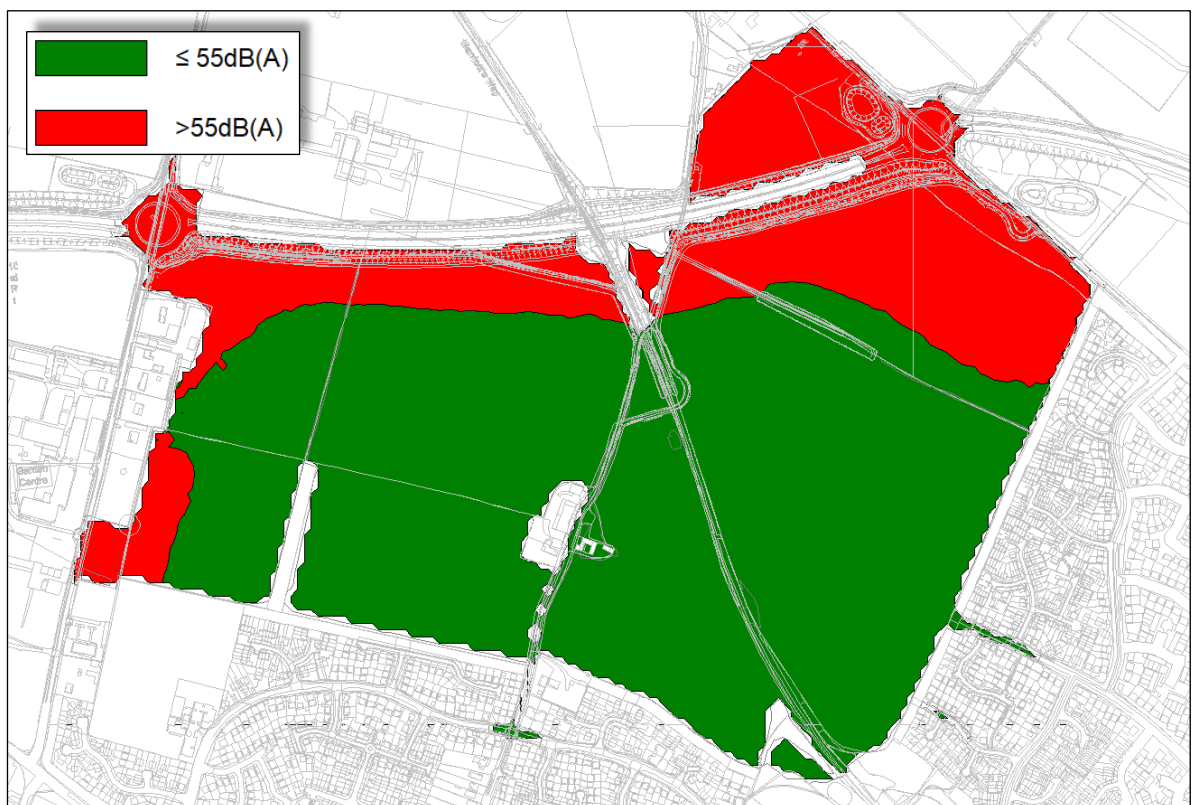


Figure 5: External Amenity Area Assessment

1.16 The above figure shows that a large area of the site should comply with an aspirational sound level of 55dB(A). However, it is also clear that areas towards the northern site boundary are above this level. The above conclusions are clearly reached on the basis of applying an “absolute” threshold value and do not present any context about the margin by

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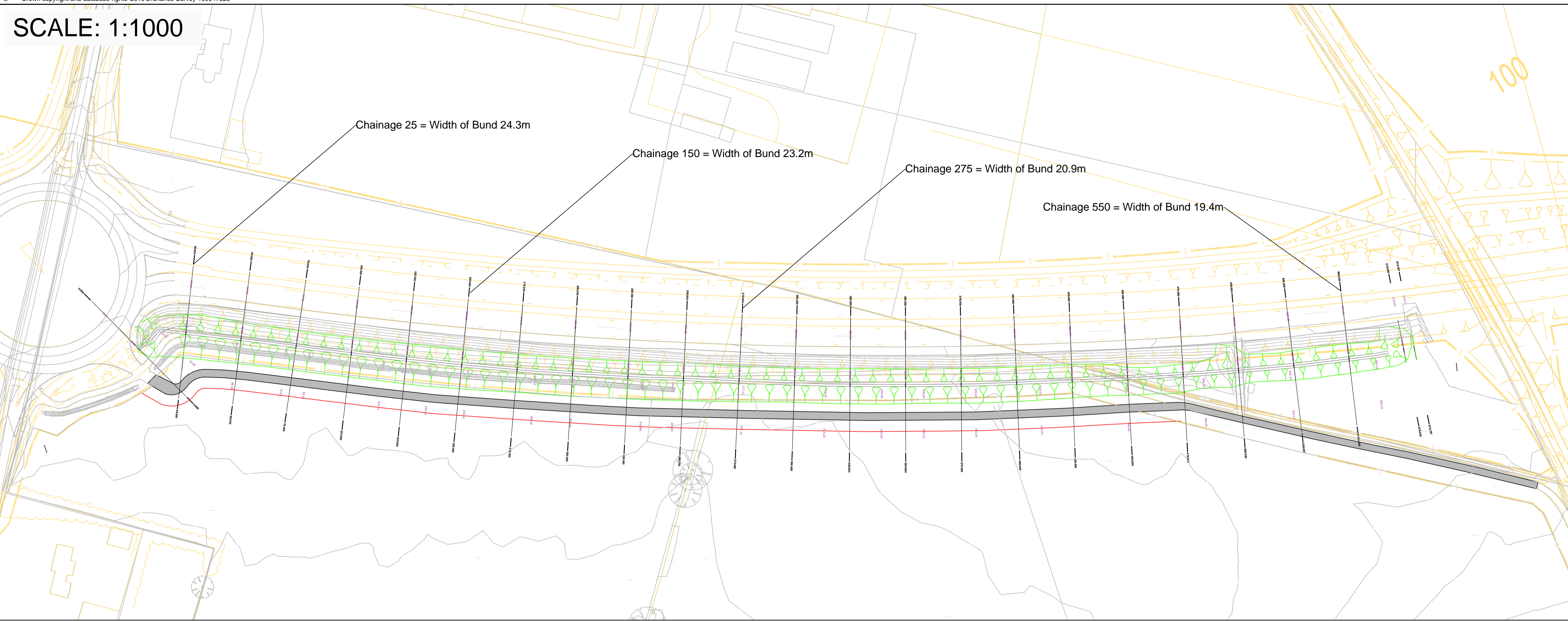
1.20 If the above principles are followed, it is unlikely that any particular mitigation will need to be implemented to control noise intrusion to internal areas of the properties, which should be readily controllable with “standard” thermal double glazing and proprietary trickle ventilator selections. More detailed advice on particular performance requirements can be provided once the master planning proposals have been finalised and full operational noise model can be constructed.

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Date: 10 March 2020

APPENDIX A

SCALE: 1:1000

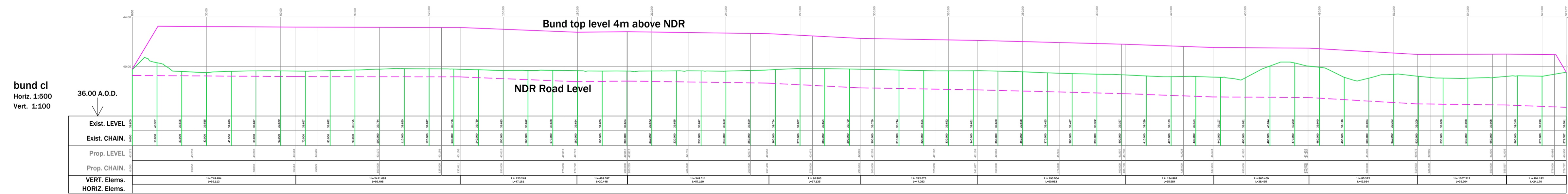


KEY

— PROPOSED EXTENSION TO BUND

NOTES

SCALE: Horizontal 1:1000 ; Vertical 1:200



REV	DESCRIPTION	DE	DR	CH	DATE

DESIGNED BY DWR	DRAWN BY DWR	CHECKED BY DCS
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SCALE @ A1 SIZE See dwg	DATE 27 - 11 - 2019
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PROJECT TITLE
MARRIOTT'S PARK

DRAWING TITLE
NOISE BUND AND RELOCATED CYCLEWAY

CLIENT
SCOTT PROPERTIES LTD

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DRAWING NUMBER U741-PL-SK-212	REV. A
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