

**Title: QUALITY AUDIT
INCLUDING
Road Safety Audit, Access Audit, Cycle Audit and Walking
Audit.
For;
Barrington SHD, Brennanstown Road, Cabinteely.**

Client: Waterman Moylan

Date: March 2022

Report reference: 1432R01

VERSION: FINAL (April 2022)

Prepared By:

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1.0 Introduction

This report was prepared in response to a request from Ms. Laura Ruiz Garrido, Waterman Moylan Consulting Engineers, for a Quality Audit for the proposed Barrington Strategic Housing Development (SHD) at Brennanstown Road, Cabinteely, Co. Dublin.

The Quality Audit has been carried out in accordance with the guidance in the Design Manual for Urban Roads and Streets (DMURS), produced by Department of Transport Tourism and Sport in March 2013 and as updated in June 2019.

This portion of the Quality Audit is a design stage audit and includes a Stage 1 Road Safety Audit (in accordance with TII Publication GE-DTY-01024, dated December 2017), an access audit, a walking audit and a cycling audit. (i.e. aspects of a Quality Audit carried out independent of the Design Team and generally included as appendices to the overall Audit)

The Road Safety and Quality Audit Team comprised of;

Team Leader: **Norman Bruton**, BE CEng FIEI, Cert Comp RSA.

TII Road safety Auditor approval number: NB 168446

Team Member: **Owen O'Reilly**, B.SC. Eng Dip Struct. Eng NCEA Civil Dip Civil. Eng CEng MIEI

TII Auditor Approval no. OO 1291756

This portion of the Quality Audit involved the examination of drawings and other material and a site visit by the Audit Team, on the 11th of March 2022. The weather at the time of the site visit was wet and the road surface was also wet.

The problems raised in this Quality Audit may belong to more than one of the categories of Audit named above. A table has been provided at the start of Section 3 of this report detailing which category of audit each problem is associated with.

Recommendations have been provided to help improve the quality of the design with regard to the areas described above. A feedback form has also been provided for the designer to complete indicating whether or not he/she will accept those recommendations or provide alternative recommendations for implementation.

The information supplied to the Audit Team is listed in **Appendix A**.

A feedback form for the Designer to complete is contained in **Appendix B**.

A plan drawing showing the problem locations is contained in **Appendix C**.

2.0 Background

It is proposed to construct a 534 unit apartment residential development off Brennanstown Road in Cabinteely. The site would extend south as far as the Luas Green Line. This area was inaccessible during the site visit.

Vehicular access would be provided from Brennanstown Road via a signalised junction.

Brennanstown road is a narrow single carriageway road. There are some footpaths along the road and some areas without such provision.

The site location is shown below.



Site location Plan. *(Image courtesy of openstreetmap.org)*

The Road Safety Authority's website www.rsa.ie shows that there were no recorded injury collisions on Brennanstown Road adjacent to the proposed junction in the 12-year period 2005 to 2016.

The screenshot displays the 'Ireland road collisions' interface. On the left is a map showing Brennanstown Road and surrounding areas like Carrickmines Ave and Brennanstown Vale. On the right is a control panel with the following sections:

- Severity:** Radio buttons for Fatal (red), Serious (yellow), Minor (grey), and All (blue). The 'All' option is selected.
- Year:** Radio buttons for years from 2016 to 2005, plus an 'All' option. The 'All' option is selected.
- Type:** Radio buttons for All (blue), Pedestrian, Bicycle, Motorcycle, Car, Goods vehicle, Bus, and Other. The 'All' option is selected.
- Collision information:** A text box stating: 'Single click on a collision icon at the local level to see details of that collision.'

3.0 Issues Identified in the Stage 1 Quality Audit

Summary Table of Problem Categories

Problem Reference	Access Audit	Walking Audit	Cycling Audit	Road Safety Audit	Quality Audit
3.1				✓	✓
3.2					✓
3.3				✓	✓

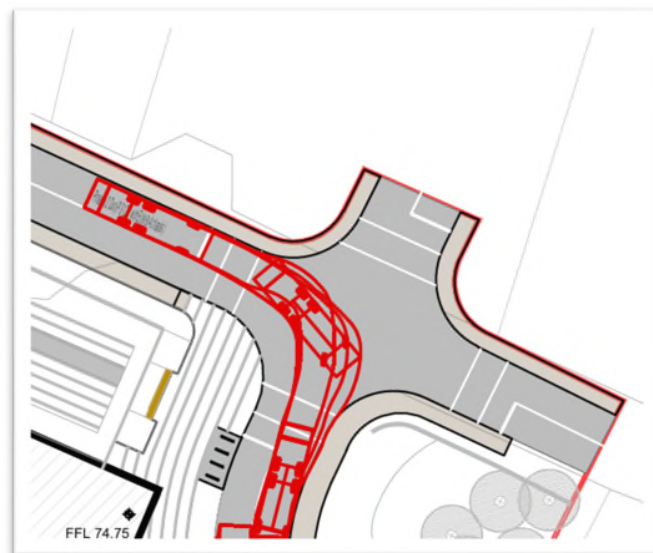
3.1 Problem

LOCATION

Drawing BRR-WM-ZZ-00-DR-C-P013 – Rev -, Brennanstown Road Junction.

PROBLEM

The swept path of a refuse vehicle is shown on the drawings. The junction will have to cater for large heavy goods vehicles during construction and future upgrades etc. albeit on an infrequent basis. There is a risk that such vehicles will not be able to turn at the junction and will mount the footpaths and possibly damage street furniture and put vulnerable road users at risk.



RECOMMENDATION

Ensure that the junction can cater for the turning of large goods vehicles.

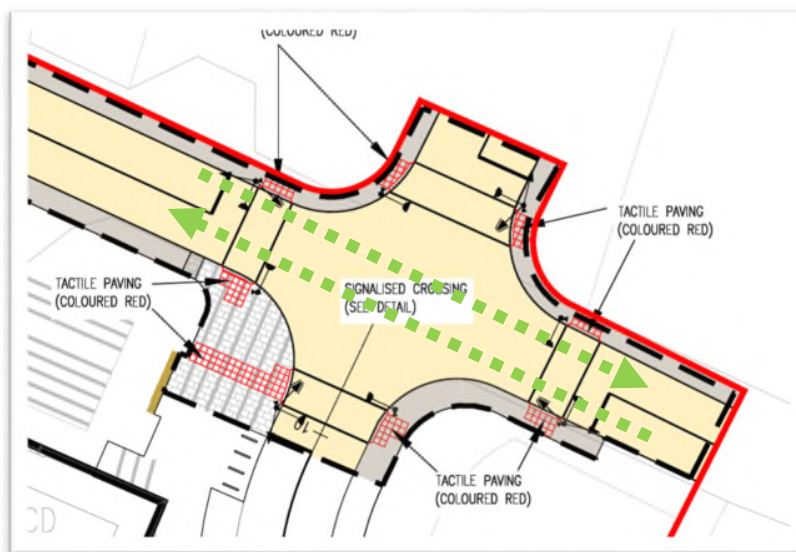
3.2 Problem

LOCATION

Drawing BRR-WM-ZZ-00-DR-C-P017 – Rev -, Brennanstown Road Junction.

PROBLEM

Brennanstown Road is a narrow road. It is unclear what the overall width of the carriageway will be when the works are complete. At present if two wide vehicles meet they pass using a passing bay type arrangement at private accesses. There is a risk that if two wide vehicles queue at the signals they will not be able to pass when they get the green signal. This could lead to mounting of the footpaths or reversing, both of which could put vulnerable road users at risk.



RECOMMENDATION

Ensure that the carriageway width is sufficient at the junction to allow two wide vehicles pass.

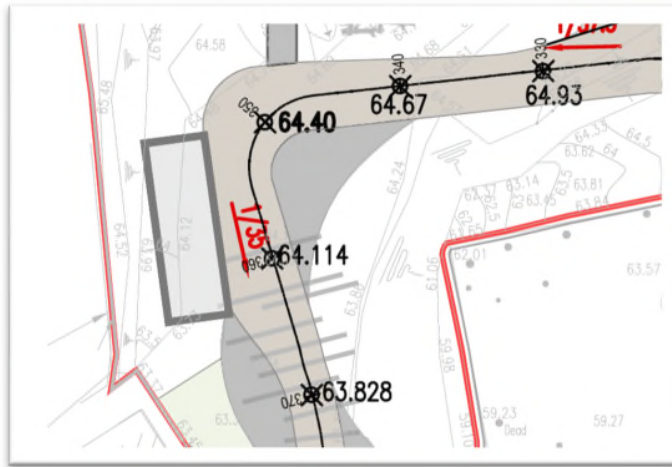
3.3 Problem

LOCATION

Drawing BRR-WM-ZZ-00-DR-C-P011 – Rev -, Southern end of access road. Ch 360

PROBLEM

It is unclear if there is sufficient space for vehicles to U-turn at the end of the access road. A lack of space could lead to damage to structures and material damage of vehicles.



RECOMMENDATION

It is recommended that a turning space be provided at the end of the route intended for vehicle use.

4.0 Observations

4.1 Observation

It is assumed that the tie-in details at the southern end of the scheme will be provided at the detailed design stage and that pedestrians will be prevented from entering the Luas lines.

4.2 Observation

Drainage details have not been provided to the Audit Team. Gullies should be provided upstream of dropped kerbs and raised tables.

4.3 Observation

There does not appear to be any surface level disabled parking spaces provided with suitable buffer zones.


4.4 Observation

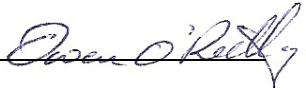
It is assumed that suitable tactile paving will be provided at the pedestrian friendly ramp at the western tie in on Brennanstown Road.

5.0 Quality Audit Statement

This portion of the Quality Audit has been carried out in accordance with the guidance given in DMURS and takes into consideration the principles approaches and standards of that Manual.

The quality audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

Norman Bruton Signed: 
(Quality Audit Team Leader) Dated: 5-4-2022

Owen O'Reilly Signed: 
(Quality Audit Team Member) Dated: 5-4-2022

Appendix A

Information Supplied to the Audit Team

- Drawing 1815_PL_P_01
- Drawing 20-040-P010 - Site Location Plan
- Drawing 20-040-P011 - Proposed Road Levels
- Drawing 20-040-P012 - Swept Path Analysis (Fire Tender)
- Drawing 20-040-P013 - Swept Path Analysis (Refuse Vehicle)
- Drawing 20-040-P014 - Proposed Road Markings & Signal Controls
- Drawing 20-040-P017 - Brennanstown Road Layout

Appendix B

Feedback Form

QUALITY AUDIT FEEDBACK FORM

Scheme: Barrington SHD
 Stage: † Stage 1 RSA & QA
 Date Audit (Site Visit) Completed: 11-3-2022

Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3.1	Yes	YEs	As shown on drawing BRR-WM-ZZ-00-DR-C-P015 which shows the autotrack analysis of a large good vehicle entering the site, the junction can accommodate the turning of infrequent large goods vehicles to the site. In line with DMURS, the junction has been designed to accommodate pedestrian and cyclist movements and to encourage slow movement of vehicles.	Yes
3.2	No	No	There is a 3 Tonne weight restriction on Brennanstown Road. Therefore, it is unlikely that there will be large good vehicles passing as the site junction. Should two large vehicles meet at the junction, the bell mouths of the junction can accommodate large vehicles pulling in temporarily.	Yes
3.3	Yes	Yes	Refer to drawing BRR-WM-ZZ-00-DR-C-P013 attached which shows the autotrack analysis for a refuse vehicle which can turn at 2 No. locations without any problem.	Yes

Signed.....Laura Ruiz.....
 Design Team Leader

Date 28/03/2022.....

Signed... *Norman Bruton*
Audit Team Leader

Date... 5-4-2022

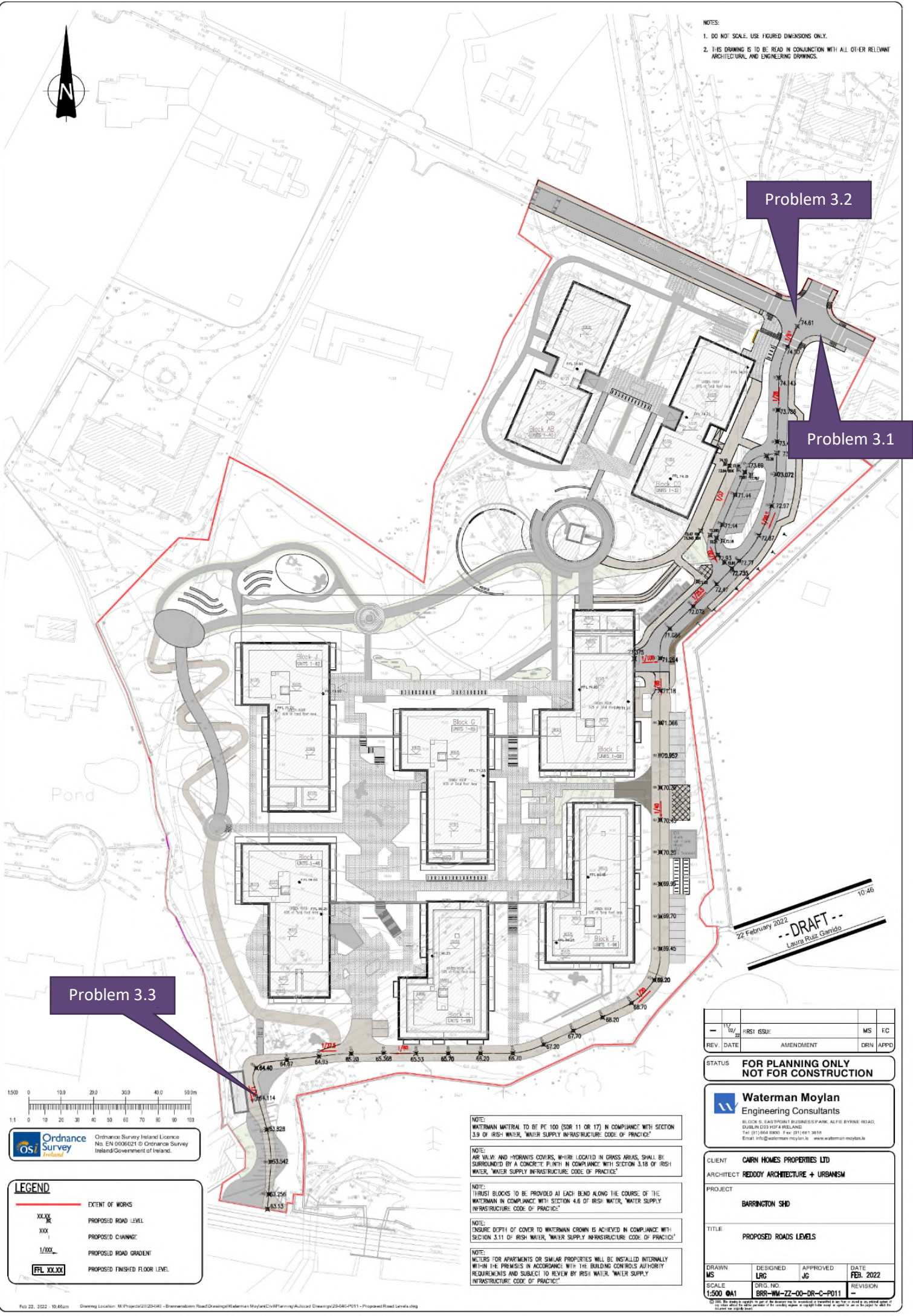
Signed... *Chona Egan*
Employer

Date... 07/04/
2022

Appendix C

Problem Location Plan.

NOTES:
 1. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY.
 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTURAL AND ENGINEERING DRAWINGS.

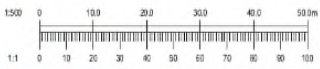


Problem 3.2

Problem 3.1

Problem 3.3

22 February 2022
 -- DRAFT --
 Laura Ruiz Garcia



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LEGEND

	EXTENT OF WORKS
	PROPOSED ROAD LEVEL
	PROPOSED CHANGING
	PROPOSED ROAD GRADIENT
	PROPOSED FINISHED FLOOR LEVEL

- NOTE: WATERMAIN MATERIAL TO BE PE 100 (SDR 11 OR 17) IN COMPLIANCE WITH SECTION 3.9 OF IRISH WATER, 'WATER SUPPLY INFRASTRUCTURE CODE OF PRACTICE'
- NOTE: AIR VALVE AND HYDRANT COVERS, WHERE LOCATED IN GRASS AREAS, SHALL BE SURROUNDED BY A CONCRETE PLINTH IN COMPLIANCE WITH SECTION 3.18 OF IRISH WATER, 'WATER SUPPLY INFRASTRUCTURE CODE OF PRACTICE'
- NOTE: THURST BLOCKS TO BE PROVIDED AT EACH BEND ALONG THE COURSE OF THE WATERMAIN IN COMPLIANCE WITH SECTION 4.6 OF IRISH WATER, 'WATER SUPPLY INFRASTRUCTURE CODE OF PRACTICE'
- NOTE: ENSURE DEPTH OF COVER TO WATERMAIN CROWN IS ACHIEVED IN COMPLIANCE WITH SECTION 3.11 OF IRISH WATER, 'WATER SUPPLY INFRASTRUCTURE CODE OF PRACTICE'
- NOTE: ACCESS FOR APARTMENTS OR SIMILAR PROPERTIES WILL BE INSTALLED INTERNALLY WITHIN THE PREMISES IN ACCORDANCE WITH THE BUILDING CONTROLS AUTHORITY REQUIREMENTS AND SUBJECT TO REVIEW BY IRISH WATER, 'WATER SUPPLY INFRASTRUCTURE CODE OF PRACTICE'

1/1	FIRST ISSUE	MS	FC
REV. DATE	AMENDMENT	DRN	APPD

STATUS: **FOR PLANNING ONLY NOT FOR CONSTRUCTION**

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CLIENT: **CARIN HOMES PROPERTIES LTD**

ARCHITECT: **REDDY ARCHITECTURE + URBANISM**

PROJECT: **BARRINGTON SHD**

TITLE: **PROPOSED ROADS LEVELS**

DRAWN MS	DESIGNED LRG	APPROVED JG	DATE FEB. 2022
SCALE 1:500 OA1	DRG. NO. BRR-WM-ZZ-00-DR-C-P011	REVISION	