31 October 2025

Richard Davies
s7(2)(a) [redacted]

Tēnā koe Richard,

Request for Information – Local Government Official Information and Meetings Act (LGOIMA) 1987

We refer to your official information request dated 30 September 2025, seeking access to documents associated with a resource consent application. Specifically, you requested copies of:

1. *Application Form (RM Lodgement Form)*
2. *Basic details: applicant, agent, site address, proposal summary*
3. *Site Plans / Architectural Drawings*
4. *Location plan, site layout, floor plans, elevations, landscaping*
5. *Assessment of Environmental Effects (AEE)*
6. *Infrastructure & Servicing Reports*
7. *Traffic/Transport Assessment Report*
8. *Urban Design / Planning Assessment*
9. *Geotechnical / Engineering Reports*
10. *Landscape or Visual Impact Assessment*
11. *Other Specialist Reports (e.g. contamination, acoustic, ecology, heritage)*

On 2 October 2025, we contacted you to request clarification of the site address or consent reference number, as your request did not include sufficient detail to identify the specific property or application. That same day, you responded and confirmed that your request relates to 85 Ludlam Crescent in Lower Hutt 5010.

Answer:

See attached.

We have redacted all contact details and names of certain individuals for privacy purposes as per section 7(2)(a) of the LGOIMA.

You have the right to seek an investigation and review by the Ombudsman of this response. Information about how to make a complaint is available at: **Office of the Ombudsman - Complaints**, or freephone 0800 802 602.

Please note that this response to your information request may be published on Hutt City Council's website: **Proactive releases - Hutt City Council**.

Ngā mihi nui
Miranda Dunn `
Solicitor

Our reference: Job Number 24315

2 October 2025

Stephen Dennis
Principal Resource Consents Planner
Hutt City Council

Via email: stephen.dennis@huttcity.govt.nz

Dear Stephen

Re: Response to Request for Further Information – 85 Ludlam Crescent – RM250155

Please find below and attached responses to your request for further information in relation to the subdivision and land use application at 85 Ludlam Crescent.

General planning questions:

1. ***A number of the units look to have pergolas over the outdoor areas. Can you confirm if this is the case, and if so update any rule assessment associated with the yard for the rear units as the pergolas will qualify as a structure. I'm not concerned around building coverage, however, yards will need consideration as far as the rule assessment is concerned.***

4G 4.2.5	**Setbacks** (a) Construction or alteration of a building is a permitted activity if: (i) Buildings are set back from the relevant boundary by the minimum depth listed below Front yard: 1.5m Side yard: 1m Rear yard: 1m (ii) One accessory building may be located in a side and/or rear yard, provided that the building does not extend more than 6m along the length of any boundary and is not located in a yard that is directly adjoining the rail corridor.	**Does not comply** Side yards: The side yard to the south of Block A is approximately 0.6m. Pergolas encroach into the following yards (where there is no common wall): • Unit 1 – southern boundary 0.45m encroachment • Unit 10 – 0.6m encroachment • Unit 11 – 0.85m encroachment • Unit 12 – northern boundary 0.1 encroachment; western

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	This standard does not apply to site boundaries where there is an existing common wall between 2 buildings on adjacent sites or where a common wall is proposed. Eaves may encroach into any yard by up to 0.6m.	boundary 0.95m encroachment. Front yards: The corner of Unit 1, Unit 2, Unit 3 and Unit 4 encroach into the front yard. The largest encroachment is at the north eastern corner of Unit 4 where the corner of the building is 0.647m from the front (Ludlam Crescent) boundary of the site. ~~The proposal complies with respect to the northern and western side boundaries.~~

Updated AEE re: setbacks:

Units 10-12 include pergolas that will encroach into the side yard boundary setback with respect to the western (units 10-12) and northern (unit 12 only) boundaries of the site. The pergola for Unit 12 comes within approximately 0.05m of western boundary at its northern end. The pergola for Unit 1 will encroach into the southern boundary of the site by approximately 0.45m.

The proposed pergolas are shown on the architectural plans and designed to align with the floor level of the first floor of each of the units, approximately 3m above the proposed ground level. There are no sides on the structures so they do not create bulk and dominance effects and they are designed purely to enhance the outdoor living areas for each of the units. Any potential shading effects will be negligible given the open design of the structure, that they are at the level of the first floor and that they are attached to a two storey building.

It is considered that the pergolas will help to break up the rear yards of units 1-4 and 9-12 and the front yards of units 5-8 when viewed from both internal viewpoints and from adjoining sites. The pergolas provide visual interest and enhance the design of the proposed development. There is also the potential for future owners to further enhance the visual appearance of the pergolas through planting climbing plants.

Effects in relation to the proposed pergola's are considered to be less than minor and no parties are considered to be adversely affected.

2. ***With respect to the permitted baseline, I can accept that 3 units can be accommodated on site in the configuration presented, however, it seems that the proposed access driveway in the PB is the same as that in the application which triggers consent due to proximity to the intersection. Because of this can you confirm whether the existing driveway width can accommodate 3 dwellings on site without requiring resource consent. Depending on the response to this matter there may be need to revise any assessment in terms of the PB.***

In the interest of not producing multiple sets of plans, I propose the permitted baseline is considered on the basis that there is no onsite parking provided. Effects from three units, that can be constructed and occupied as a permitted activity can still be disregarded.

The permitted baseline is a test is to isolate and make effects of activities on the environment that are permitted by the plan irrelevant. However, the permitted baseline is not the only avenue for Council to consider that the effects of the proposal are less than minor under 95E (determining affected persons) and no more than minor under 95D (effects more than minor – having disregarded effects on adjacent land). In

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practice effects assessments are not undertaken in isolation from the District Plan provisions, i.e. the scale of a development anticipated by a District Plan, even where developments are not pure permitted activities.

In the HDRAA, resource consent is required for more than 3 units on a site (development standard 4G 4.2) but public and limited notification are precluded for resource consent applications under Rule 4G 4.2.1.b. This clearly signals that more than 3 units are anticipated by the District Plan, and that this is not an issue where effects on neighbours would need to be considered. This is supported by the increase in the height to boundary provisions that applies for four or more units under Rule 4G 4.2.4.a.ii. While having 12 units on a site is not permitted by the Plan, it is clearly anticipated and signalled in the structure of the rules and in my view, effects are less than minor.

3. ***WWL advice – given the time since previous WWL advice was sought I have asked for them to comment regarding floor levels – I note in some instances these seem to be reduced from prior advice, while each block is likely to be built to the higher applicable level I note that there may be the ability to reduce some of the levels of the blocks to further reduce the HTB non-compliances. I have attached WWL feedback to this information request for your consideration as to if any changes are feasible.***

The plans have been updated to reflect the updated minimum floor levels from WWL and are attached at **Attachment A**. The floor levels are now shown in relation to the NZVD2016 and we have had confirmed by the applicant's surveyor that in this location, that the conversion from Wellington Vertical Datum 1953 (topo data) to New Zealand Vertical Datum 2016 is -0.384m. As such the MFL *originally* recommended by WWL of 3.7m, is converted to a MFL of 3.316m in the NZVD2016. As a result of the updated levels, and providing for a 100mm slab thickness, Blocks A and B are now designed to 3.3m and Block C to 3.2m (to the top of the slab).

As a result of the updated floor levels there is a slight reduction in the HIRB encroachment for Block B (reduced from 0.629m encroachment to 0.61m encroachment) and as a result of more detailed design there is a very slight increase for Block C – an increase of 15mm on the northern boundary and an increase of 6mm on the southern boundary. These changes are considered to be indiscernible compared to the scale of the breach that was submitted with the original application and no further assessment of effects is considered necessary with effects being less than minor.

4. ***On the matter of shading, while the scale of the breaches are not significant, for completeness of any assessment it would be helpful to have the shading diagrams (in terms of the ones developed with the permitted baseline and proposed bulk) provide some additional timeframes across the day (12.00hrs, 15.00hrs, 17.00hrs). Can you please provide a revised plan set incorporating these times.***

Additional shading information for both the permitted baseline and resource consent are provided and attached at **Attachment B.**

5. ***Can you please clarify if there are any fencing treatments proposed for the interface between car park 1 and unit 4?***

Please refer to the Landscape Plan or the Architecture Plans for location of the fencing. There is proposed to be a fence around Tree 3, shown on Landscape Plan L004 (see snip below) as an orange line.

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Urban Design review questions:

6. ***Please demonstrate how overlooking is minimised to neighbouring living and private outdoor spaces on the southern boundary of the site.***

   Explanation: Block B's southern elevation is well-resolved, however second floor windows are likely to result in overlooking of the outdoor living space of the neighbour to the south (83 Ludlam). With limited space to mitigate with vegetation, please consider raising window sills / using an elevated long narrow window to mitigate this for all bedrooms/studies on the southern side of units in Block B. This may be an element to discuss further if necessary to talk over options.

The subject site is located in the High Density Residential Activity Area, a zone that anticipates an intensity of development of six storeys. There will be an element of overlooking from bedroom windows in the sense that 83 Ludlam Crescent will be visible, but only to a level anticipated by the HDRAA. In terms of mitigating effects of overlooking, the first floor has bedrooms, as opposed to living areas, and only three units in Block B are adjoin the boundary with 83 Ludlam. Furthermore, the windows have been designed so that the secondary bedroom/study on the south facade has reduced window size.

7. ***Please demonstrate how the refuse area is well lit to promote safe use.***

   Explanation: the refuse area is logically located and well designed. Please include a sensor light to ensure the area is well lit at night to promote safe use.

The applicant confirms they will install a sensor light to ensure the refuse area is well lit. The applicant proffers a condition to this effect.

8. **Please demonstrate that external heat pump units are conveniently located and visually discrete.**

   ***Explanation*: please show these on plans so that this can be assessed.**

Heat pumps will be located in the rear yards or side yards for each of the units. The heat pump units will not be located in the front yards of units 1-4, and will be located to be visually discrete. The applicant proffers a condition to this effect.

9. *Please demonstrate how reasonable sunlight and daylight is achieved for all units.*

***Explanation**: Please include updated solar studies that show solar access to the units' living internal spaces.*

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Links to Solar Studies were provided on 22 September for units 1, 8 and 8. Link is also provided here: Sun Studies:

Traffic/transport review questions:

Truck manoeuvring

10. ***The non-compliance relating to rubbish truck access needs to be considered on its own merits. While similar reversing manoeuvres have been accepted in locations such as High Street and Waterloo, the context on Ludlam Crescent is materially different. Ludlam Crescent carries a higher traffic volume (approximately 22,000 vehicles per day), and there is no full shoulder available for a truck to wait clear of traffic. As a result, a truck would need to wait partially within the live traffic lane before reversing, sweeping across the full carriageway. Furthermore, due to the site's frontage being located on a slight bend, this manoeuvre would require the truck to complete an approximate 125° reversing turn, creating additional operational and safety concerns. This is not acceptable, please provide an alternative solution.***

Following consultation with Rebecca Johnston from Councils waste team it has been accepted that waste can be in 2 X 660 general waste, 1 X 660 plastic/tin, 1 X 660 paper/card & 2 X 240 mixed glass and that these can be collected from the kerb. As such there is no longer a requirement for a rubbish truck to reverse onto the site and this issue is now resolved.

It is noted that there were previous discussion with Rebecca Johnstone about Units 1-4 having their own bins, however, the applicant's preference is for all waste to be in the shared waste area. We consider that the professional waste collection driver will determine the safe location to temporarily park and collect the bins for the once-per-week collection service and it is not proposed to move the waste area to the southern side of the driveway.

11. ***While the traffic lane width is 5.8 m for the majority of the access, it narrows to 4.75 m at a pinch point adjacent to the bin storage area. Please provide justification for this reduced width.***

As council have identified the proposed driveway will generally be of a uniform 5.8m width, apart from a very short section where its width will be ~4.75m. While this results in a technical non-compliance this would still allow for two standard 85th percentile cars to pass one another, or even and 85th percentile car and a 99th percentile vehicle (van) to pass at this point at slow speeds. Any effects of the short narrow section are assessed as being less than minor.

12. ***The turning head has been designed and tracked only for an 85th percentile vehicle but does not meet the dimensional requirements of NZS 4404:2010 Figures 3.3 and 3.4, which are sized to accommodate larger vehicles such as delivery vans and service trucks. Please re-design the turning head to accommodate a 99th percentile (or larger) vehicle.***

Please find below tracking for a B99 Vehicle (van) demonstrating that no re-design to the turning head is required.

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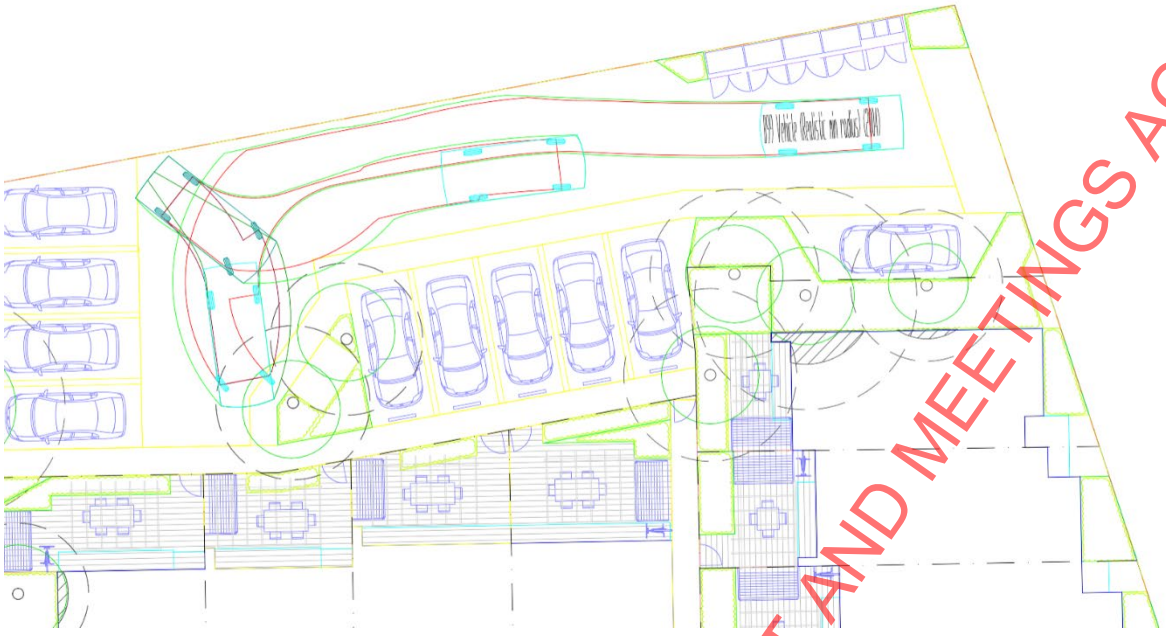

Engineering questions:

13. ***The Development Engineering team have reviewed the application and only one request has resulted from this, relating to the underground storage/detention system within the driveway. From their review they have requested that the feasibility of this system is supported from a geotechnical perspective and I cite their comments below:***

    The site is in an area identified as being susceptible to liquefaction and lies within a flood hazard zone. Current guidance (refer to the Regional Standard for Water Services, NZBC E1 Surface Water, NZS4431:2022, and NZS4404) requires that the suitability of natural ground to receive and dispose of water be confirmed by a qualified geo-professional. Accordingly, the applicant should provide a preliminary geotechnical report assessing the ground conditions and their suitability for the proposed development. Discharging stormwater to ground may increase the risk of liquefaction, compromise foundation stability, and/or affect the integrity of the proposed access.

Please find attached at **Attachment C** and email from E2 outlining that the system will not be discharging stormwater to ground. The detention tank will be fully lined and E2 considers the installation could be rafted and have extra gravel laid to protect against liquefaction. Please also find attached at **Attachment C** a Geotechnical report for the site.

We consider this required for further information is complete. We look forward to receiving draft conditions in due course.

Kind regards,

AJBlackwell

Alice Blackwell
Senior Planner
E: alice@urbanedgeplanning.co.nz
P: s7(2)(a)

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85 Ludlam Crescent

William Edmonds

Project No:J1222

Resource Consent

Date issued:
29/07/2025



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Resource Consent
29 July 2025

Sheet Index

No.	Rev	Name
		Cover sheet
RC01		Index | Site Location Plan
RC02		Site Plan
RC03		Earthworks plan
RC04		Overall Ground floor plan
RC05		Block A | Floor Plans
RC06		Block B | Floor Plans
RC07		Block C | Floor Plans
RC08		Elevations | Block A
RC09		Elevations | Block B
RC10		Elevations | Block C
RC11		3D View | Block A
RC12		3D View | Block B
RC13		3D View | Block C
RC14		3D Views - Sunlight Access Planes
RC15		Sun Study | SImple
RC16		Scheme Plan
RC17		Additional Survey Information

Project Description:

Proposed 12 lot subdivision consisting of:
- 10 x 2 bedroom townhouses.
- 2 x 3 bedroom townhouses.
- Provide weatherboard cladding with box corners and facings around the window to provide a traditional style with hip and gable roofs.

Legal Description:

Address:	85 Ludlam Crescent, Woburn, Lower Hutt.
District Plan Zone:	High Density Residential
Lot No.:	1
DP No.:	11523
Legal Description:	ALL DP 11523 WN464/170
Site area:	1359
CT No.:	464/170

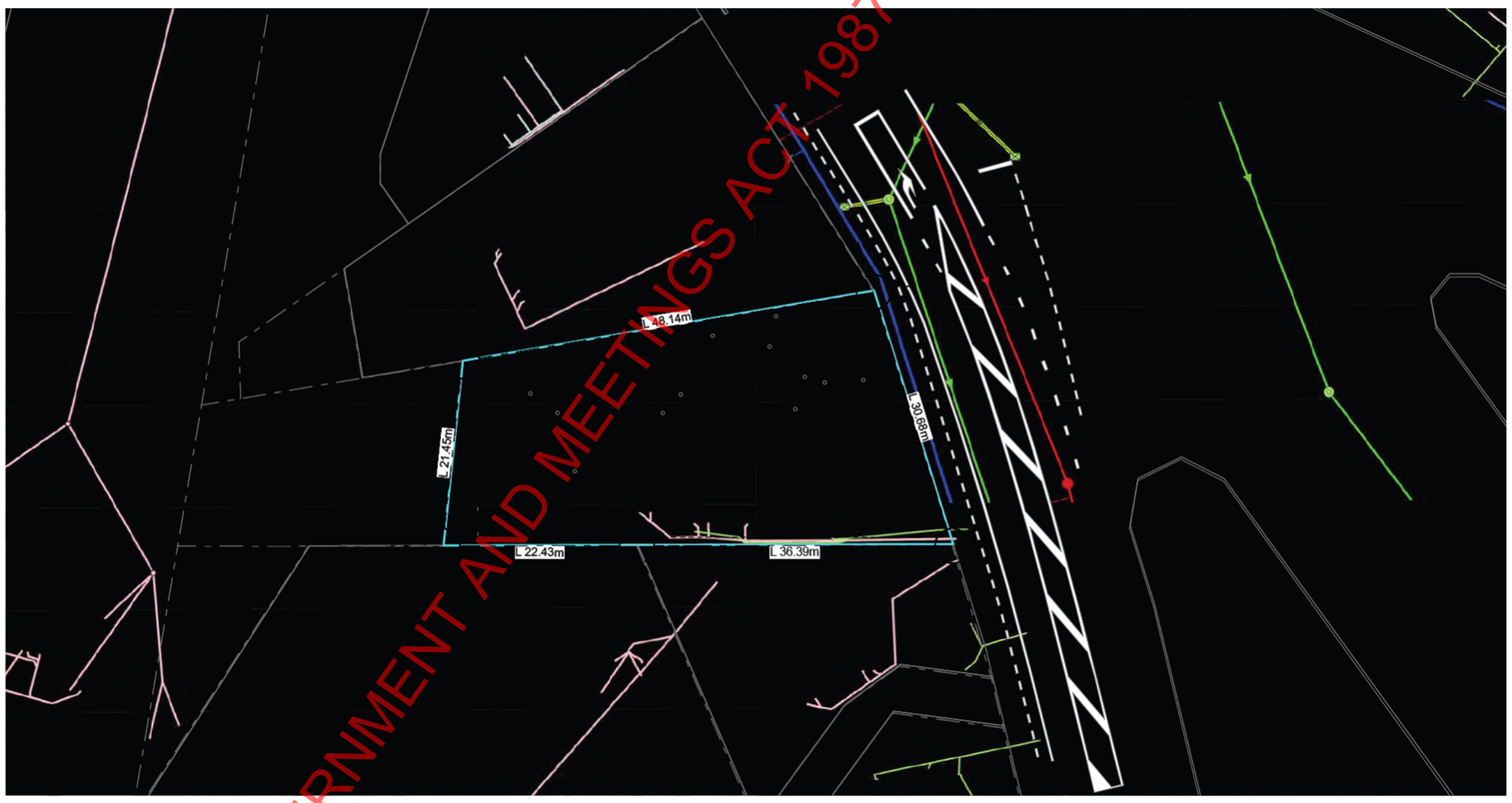
Design Criteria:

Wind zone:	High
Earthquake zone:	Zone 3
Exposure zone:	Zone C
Floor load:	1.5 kPa 2kPa 3kPa
Deck load:	2 kPa
Climate Zone:	3
Altitude:	3.3m
Soil type:	Class D – "Deep Soil"
Risk Group:	SH
Flood Zone:	Flood Hazard

Site Coverage Calculation:

Site gross area:	1359 m²
Block A foot print:	171.75 m²
Block B foot print:	204.61 m²
Block C foot print:	176.49 m²
Total building foot print:	**552.85 m²**
Site coverage:	**40.68 %**
Site coverage allowed:	50%





1 Site Location Plan
1:500

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Project:	Client:	Contents:	RevID	ChID	Change Name	Date
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Index | Site Location Plan				

Design: CM	A2 Scale:1:500	SHEET No.	REV No.
Drawn: CP	Date: 29/07/2025	RC01	
Checked: GC	Job No: J1222		

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1 Site Plan
1:200

GRAPHIC SCALE 1:200[m]
2 4 6 8 10

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Coverage Calculations
Site area: 1359m²
Allowed: 50% (679.5m²)
Actual: 40.68% (552.85m²)

Site Coverage	
	Area
Block A	171.75
Block B	204.61
Block C	176.49
	552.85 m²

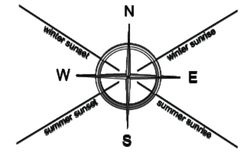
Landscaping Calculations
Site area: 1359m²
Required: 20% (271.8m²)
Achieved: 14.88% (202.19m²)

Landscaping Area	
	Area
Landscaping - Along side of unit 9	4.90
Landscaping - between block B & C	26.62
Landscaping - Bewteen unit 12 and park ng	2.57
Landscaping - Block A outdoor living planted areas	30.03
Landscaping - Block B outdoor living planted areas	14.08
Landscaping - Block C outdoor living planted areas	26.08
Landscaping - Driveway / Bin storage	2.07
Landscaping - end of parking bay 6	6.20
Landscaping - Next to Unit 12	4.61
Landscaping - Next to Unit 13	6.91
Landscaping - Street Frontage	47.77
Landscaping - Tree canopy	30.35
	202.19 m²

Legend
- Tree canopy area
- Landscaping area
- Outdoor Living area

Areas Schedule

Site area (m²)		**1,359.00**
Coverage	Block A	171.75
	Block B	204.61
	Block C	176.49
		552.85
Floor area	Block A	302.00
	Block B	363.64
	Block C	306.85
		972.49
Coverage		40.7%
FAR		0.72



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Project:	Client:	Content:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Site Plan

RevID	ChID	Change Name	Date

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Tree Protection Zones Legend

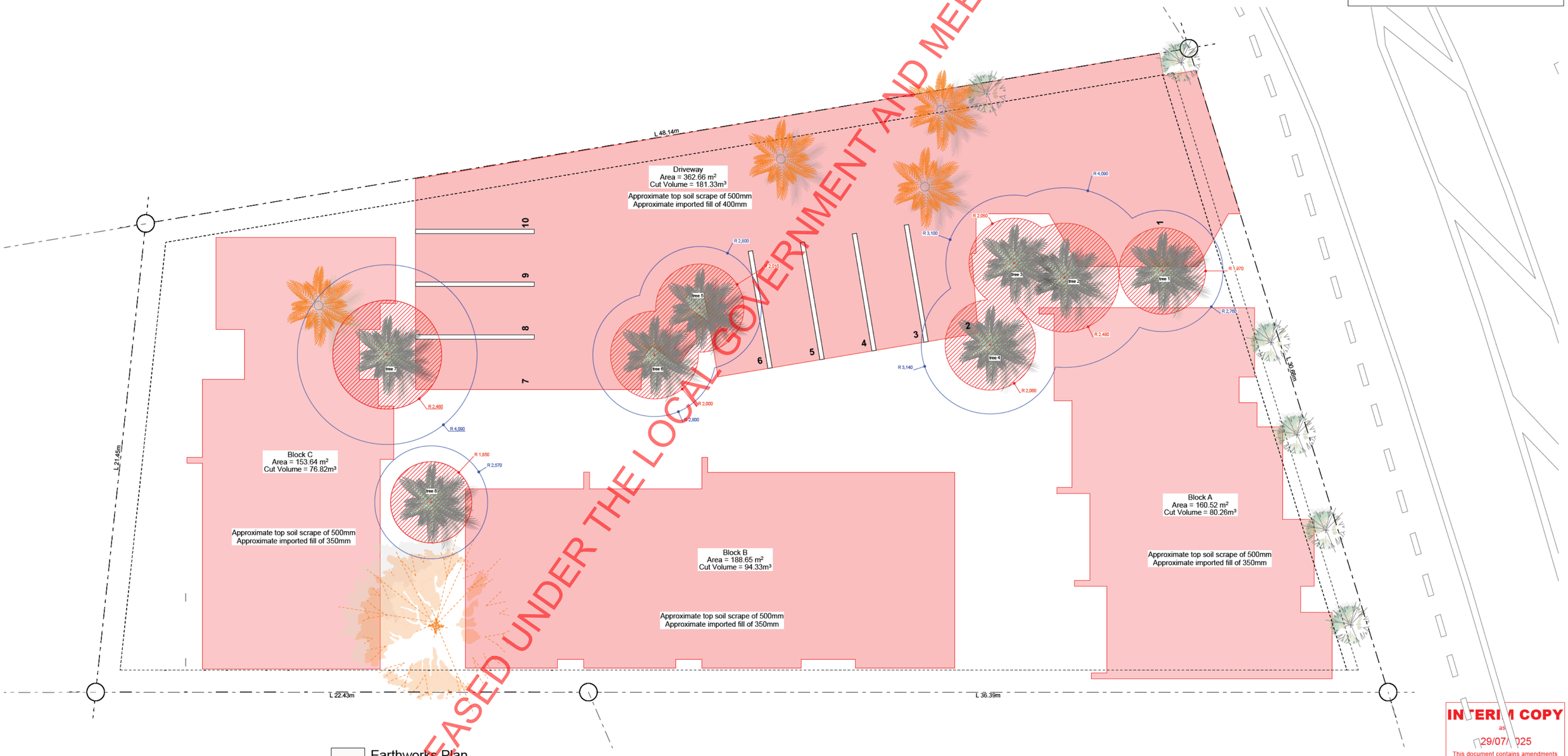
	Tree Protection Zone (TPZ)
	Structural Root Zone (SRZ)

Note: contractor to consult arborist before working in tree zones

Earthworks Legend:

Cut:	
Block A	= 160.52m²
Block B	= 188.65m²
Block C	= 153.64m²
Driveway	= 362.66m²
Total Cut Area	**= 865.47m²**
Block A	= 80.26m³
Block B	= 94.33m³
Block C	= 76.82m³
Driveway	= 181.33m³
Total Cut Volume	**= 432.74m³**

Fill:	
Block A	= 160.52m²
Block B	= 188.65m²
Block C	= 153.64m²
Driveway	= 362.66m²
Total Fill Area	**= 865.47m²**
Block A	= 56.18m³
Block B	= 66.03m³
Block C	= 53.77m³
Driveway	= 145.06m³
Total Fill Volume	**= 321.04m³**



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1 Earthworks Plan
1:125

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Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Earthworks plan

RevID	ChID	Change Name	Date

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Floor Area Schedule - Block A		
		Area
Ground Floor		
	Unit 1	40.65
	Unit 2	40.80
	Unit 3	38.47
	Unit 4	37.71
		157.63 m²
First Floor		
	Unit 1	37.38
	Unit 2	37.48
	Unit 3	35.08
	Unit 4	34.43
		144.37 m²
		302.00 m²

Floor Area Schedule - Block B		
		Area
Ground Floor		
	Unit 5	50.78
	Unit 6	51.13
	Unit 7	43.35
	Unit 8	42.98
		188.24 m²
First Floor		
	Unit 5	47.14
	Unit 6	47.49
	Unit 7	40.56
	Unit 8	40.21
		175.40 m²
		363.64 m²

Floor Area Schedule - Block C		
		Area
Ground Floor		
	Unit 9	38.27
	Unit 10	38.73
	Unit 11	37.26
	Unit 12	39.37
		153.63 m²
First Floor		
	Unit 9	37.16
	Unit 10	37.59
	Unit 11	38.13
	Unit 12	40.34
		153.22 m²
		306.85 m²





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1 Ground Floor | Floor Plan
1:125

GRAPHIC SCALE 1:125[m]
0 1 2 3 4 5 6 7

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Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Overall Ground floor plan

RevID	ChID	Change Name	Date

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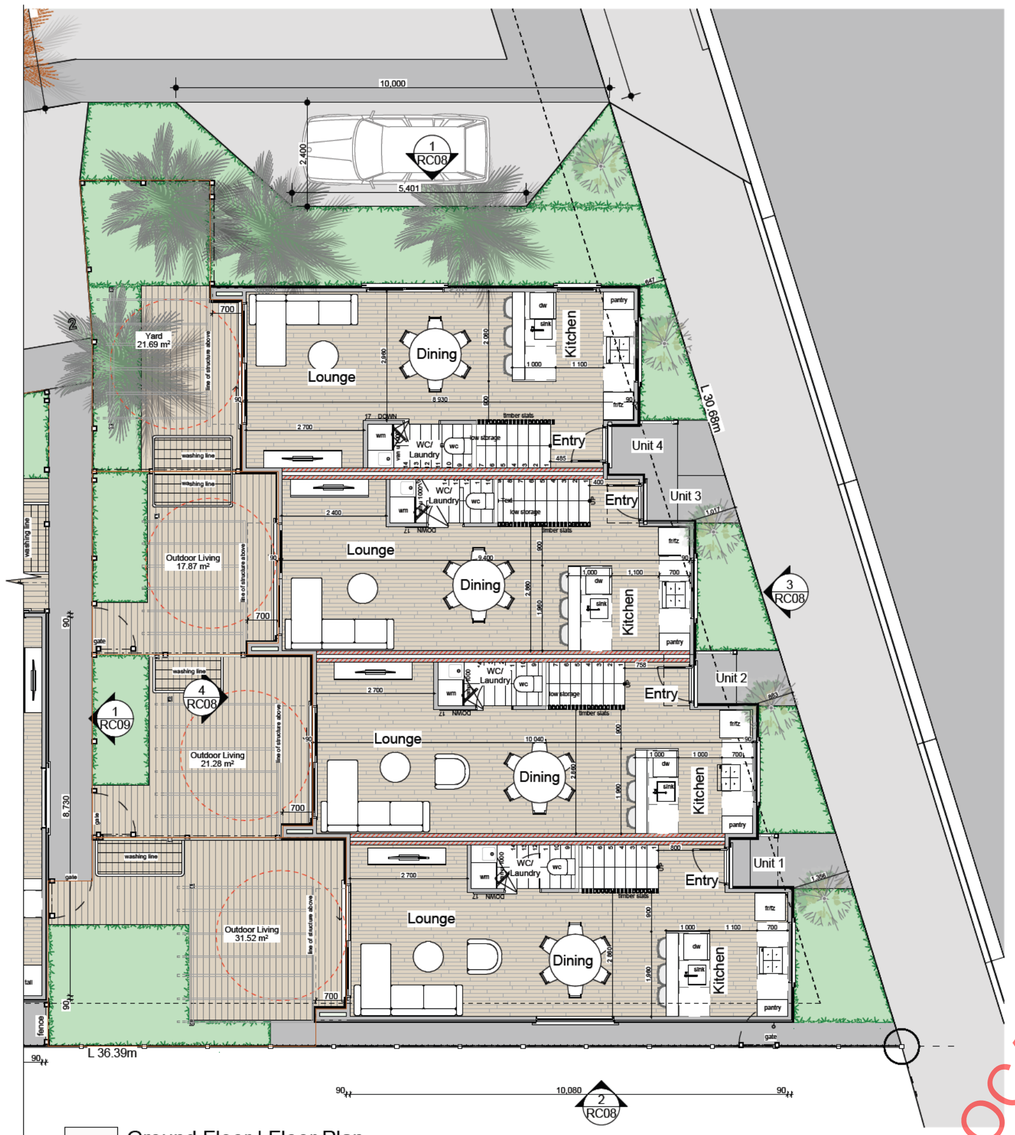
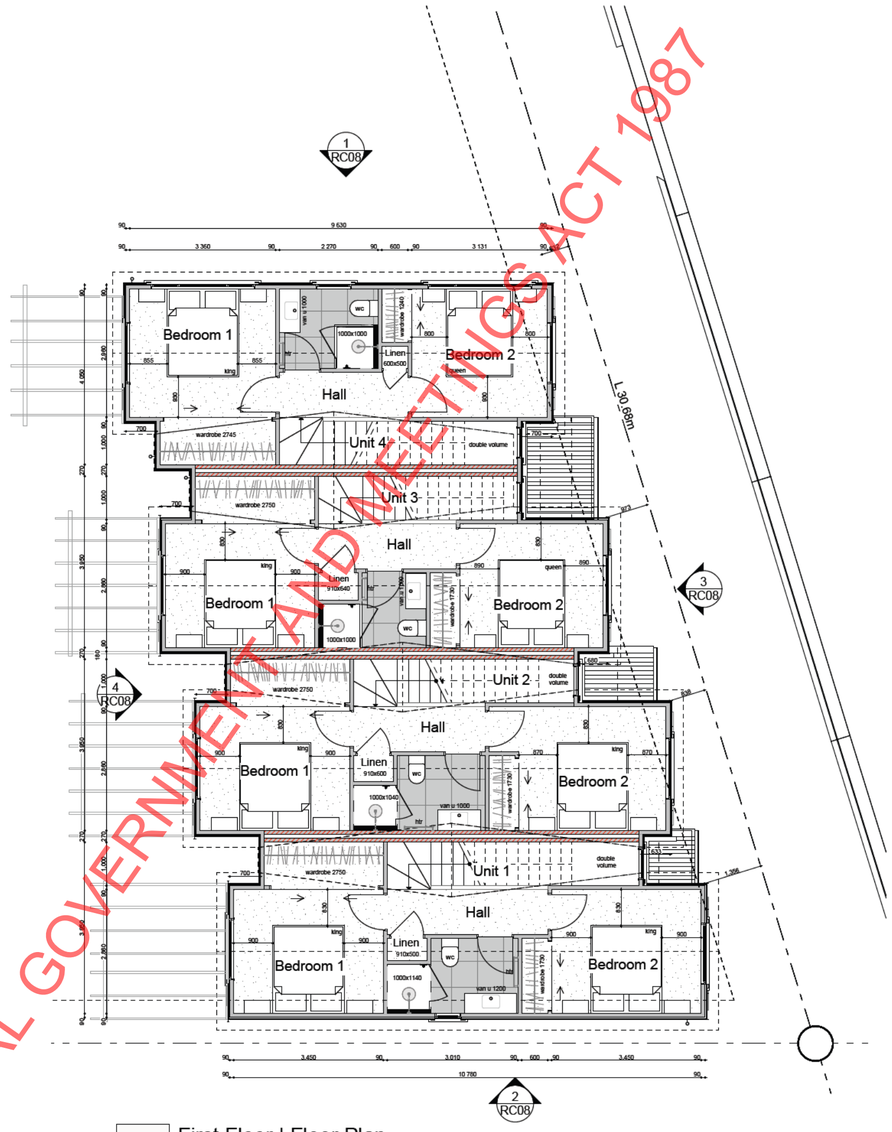


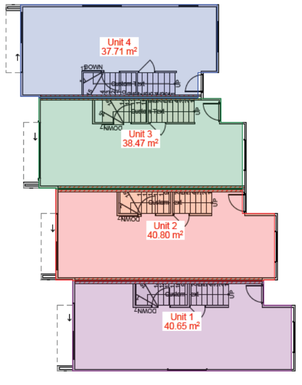
1 Ground Floor | Floor Plan

1:100



2 First Floor | Floor Plan

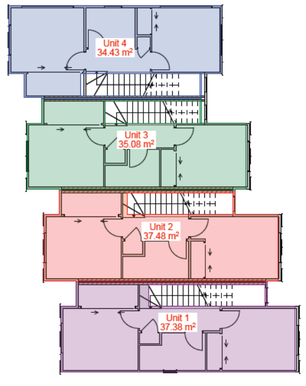
1:100





3 Ground Floor | Area Diagram

1:200



4 First Floor | Area Diagram

1:200

GRAPHIC SCALE 1:100[m]
0 1 2 3 4 5 6

Timber Framing:

Wall Framing Legend:

- indicates new 90 x 45 H1.2 SG8 framing.
- indicates new 140 x 45 H1.2 SG8 framing.
- walls with a dashed line indicate internal Load Bearing Walls. Refer to section
- indicates new FFR 30/30/30 Fire rated wall H1.2 SG8 framing.
- DS — indicates double studs under new beams down to floor level and double studs to take point loads above lintels. Refer to engineers drawings.

REFER TO SECTION B OF NOTES SHEET FOR TIMBER FRAMING NOTES AND INSTALLATION INFORMATION

Floor Area Schedule - Block A		
		Area
Ground Floor		
	Unit 1	40.65
	Unit 2	40.80
	Unit 3	38.47
	Unit 4	37.71
		157.63 m²
First Floor		
	Unit 1	37.38
	Unit 2	37.48
	Unit 3	35.08
	Unit 4	34.43
		144.37 m²
		302.00 m²

Floor Finish Legend:

- Carpet
- Tiles
- Timber Decking
- Timber Flooring

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Contractor to check dimensions on site prior to fabrication & construction.

Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Block A | Floor Plans

RevID	ChID	Change Name	Date

MOORE DESIGN

Design: CM | A2 Scale:1:100, 1:200 | SHEET No. RC05 | REV No.
Drawn: CP | Date: 29/07/2025
Checked: GC | Job No: J1222

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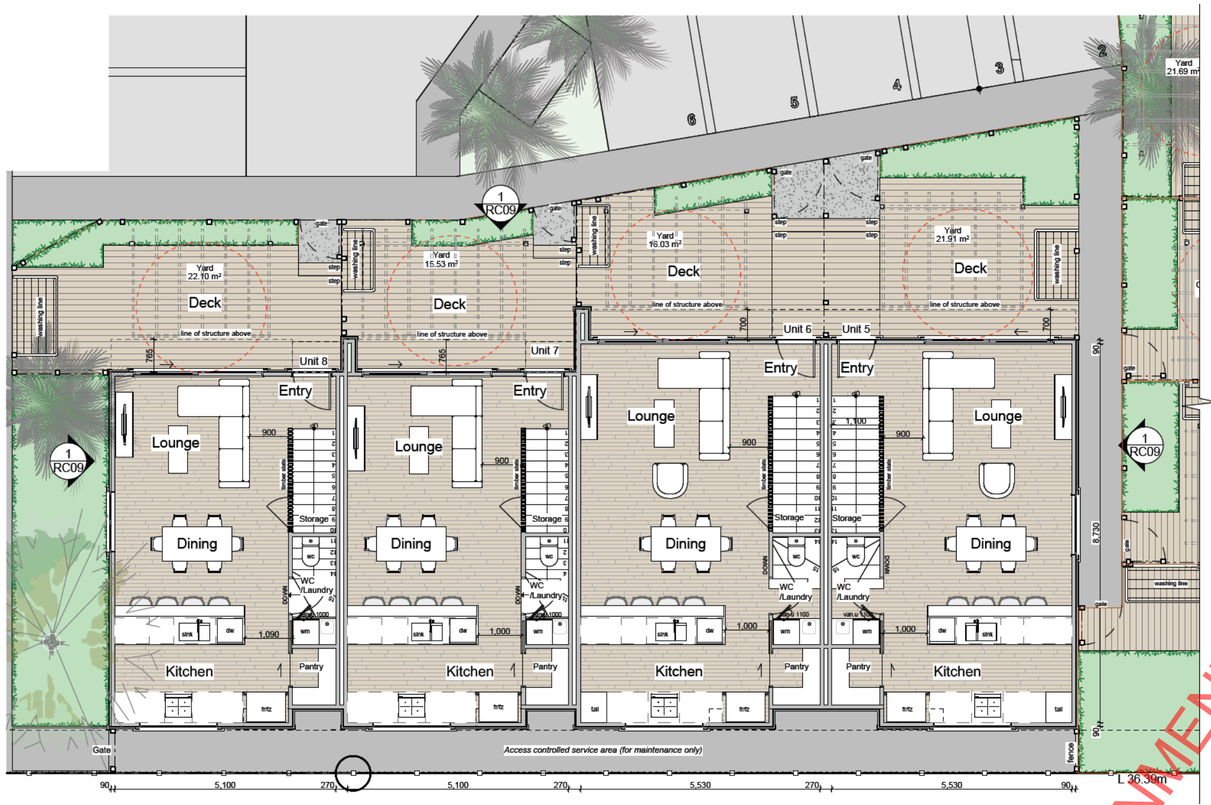
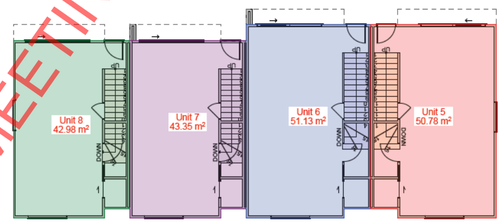
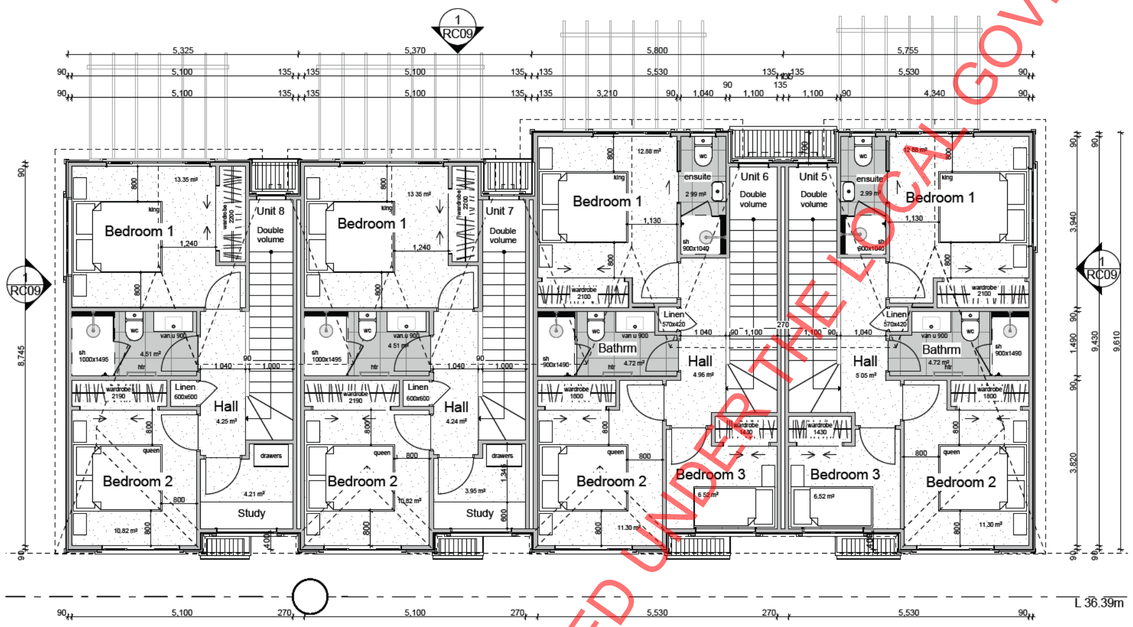


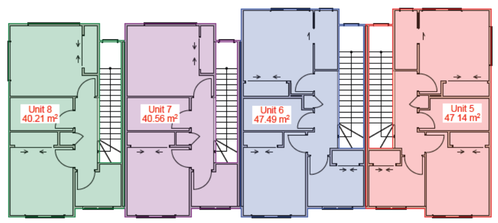
1 Ground Floor | Floor Plan
1:100



2 Ground Floor | Area Diagram
1:200



3 First Floor | Floor Plan
1:100



4 First Floor | Area Diagram
1:200

Timber Framing:

Wall Framing Legend:

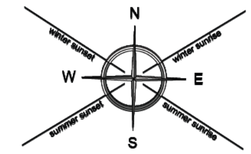
- indicates new 90 x 45 H1.2 SG8 framing.
- indicates new 140 x 45 H1.2 SG8 framing.
- walls with a dashed line indicate internal Load Bearing Walls. Refer to section
- indicates new FFR 30/30/30 Fire rated wall H1.2 SG8 framing.
- DS — indicates double studs under new beams down to floor level and double studs to take point loads above lintels. Refer to engineers drawings.

REFER TO SECTION B OF NOTES SHEET FOR TIMBER FRAMING NOTES AND INSTALLATION INFORMATION

Floor Area Schedule - Block B		
		Area
Ground Floor		
	Unit 5	50.78
	Unit 6	51.13
	Unit 7	43.35
	Unit 8	42.98
		188.24 m²
First Floor		
	Unit 5	47.14
	Unit 6	47.49
	Unit 7	40.56
	Unit 8	40.21
		175.40 m²
		363.64 m²

Floor Finish Legend:

- Carpet
- Tiles
- Timber Decking
- Timber Flooring



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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Block B | Floor Plans

RevID	ChID	Change Name	Date

MOORE DESIGN

Design: CM | A2 Scale:1:100, 1:200
Drawn: CP | Date: 29/07/2025
Checked: GC | Job No: J1222
SHEET No. **RC06** | REV No.

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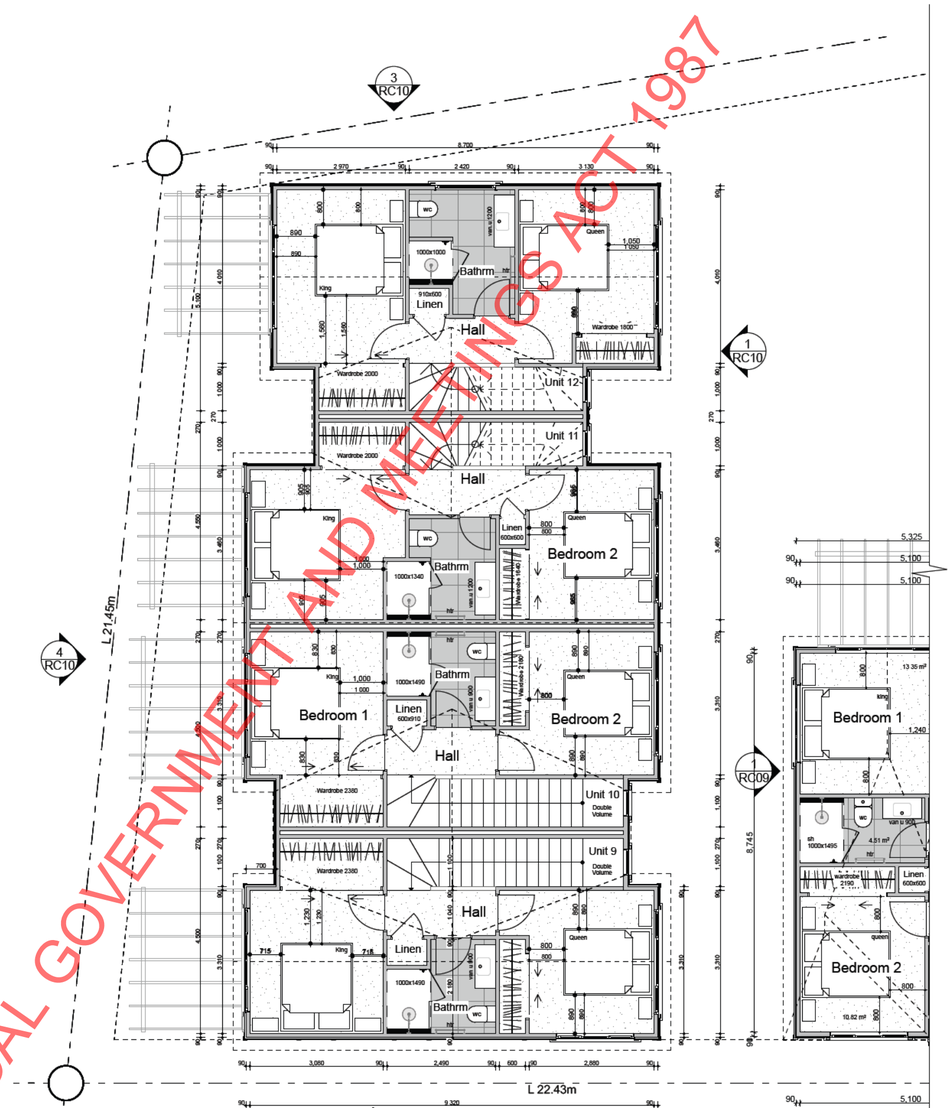
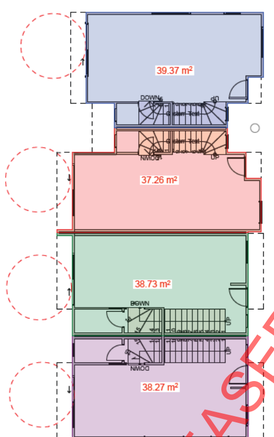
1 Ground Floor | Floor Plan

1:100



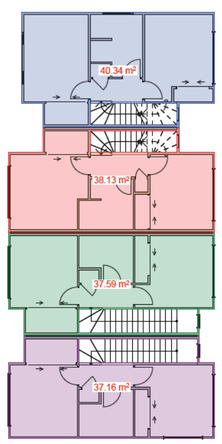
3 First Floor | Floor Plan

1:100



2 Ground Floor | Area Diagram

1:200



4 First Floor | Area Diagram

1:200

Timber Framing:

Wall Framing Legend:

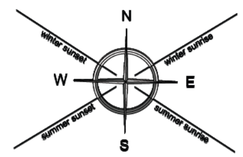
- indicates new 90 x 45 H1.2 SG8 framing.
- indicates new 140 x 45 H1.2 SG8 framing.
- walls with a dashed line indicate internal Load Bearing Walls. Refer to section
- indicates new FFR 30/30/30 Fire rated wall H1.2 SG8 framing.
- DS — indicates double studs under new beams down to floor level and double studs to take point loads above lintels. Refer to engineers drawings.

REFER TO SECTION B OF NOTES SHEET FOR TIMBER FRAMING NOTES AND INSTALLATION INFORMATION

Floor Area Schedule - Block C		
		Area
Ground Floor		
	Unit 9	38.27
	Unit 10	38.73
	Unit 11	37.26
	Unit 12	39.37
		153.63 m²
First Floor		
	Unit 9	37.16
	Unit 10	37.59
	Unit 11	38.13
	Unit 12	40.34
		153.22 m²
		306.85 m²

Floor Finish Legend:

- Carpet
- Tiles
- Timber Decking
- Timber Flooring



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Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Block C	Floor Plans

RevID	ChID	Change Name	Date

MOORE DESIGN

Design: CM	A2 Scale:1:100, 1:200	SHEET No.	REV No.
Drawn: CP	Date: 29/07/2025	RC07	
Checked: GC	Job No: J1222		

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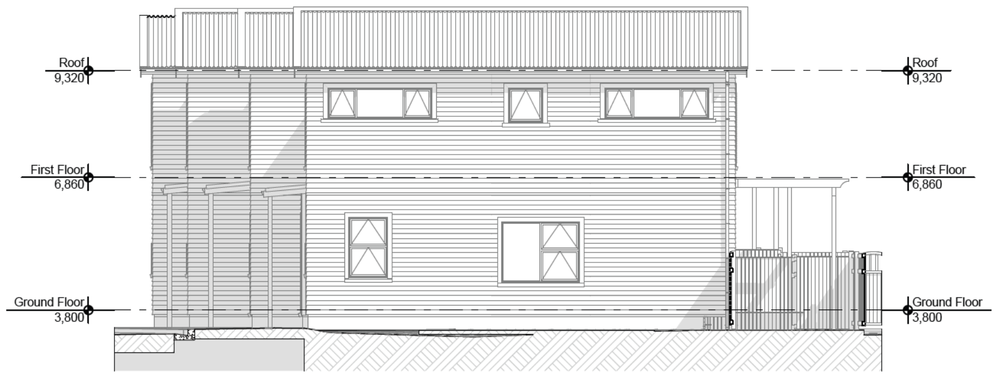
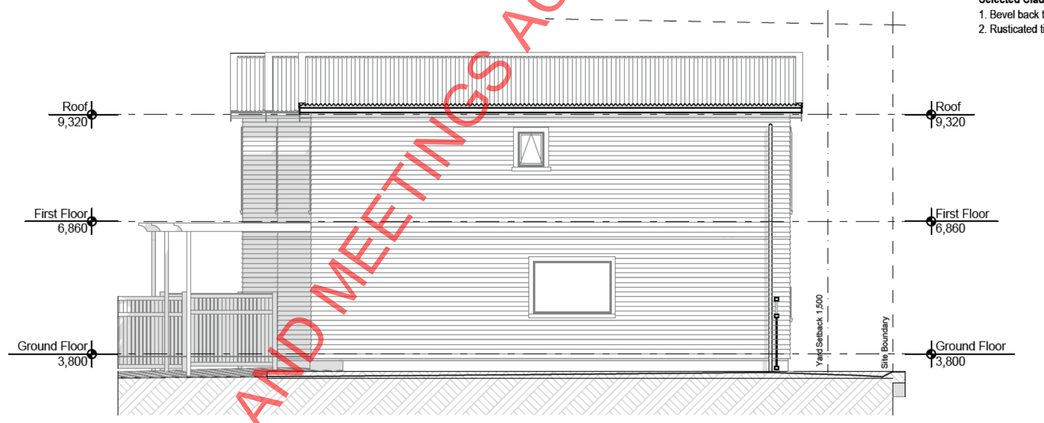
Risk Factor	Description	Risk	Score
Wind Zone	High	M	1
Number of Storeys	2-Storey	H	2
Roof/Wall Intersection Design	Fully protected (e.g. hip and gable roof with eaves)	L	0
Eaves Width	100mm - 450mm wide	VH	5
Envelope Complexity	Moderately complex shape with no more than 2 cladding types.	M	1
Deck Design	Timber slat deck at ground floor level	L	0
			Total Score: 9

Selected Claddings:

1. Bevel back timber weatherboard over nominal 20mm drained cavity
2. Rusticated timber weatherboard over nominal 20mm drained cavity



1 Block A | North Elevation
1:100



2 Block A | South Elevation
1:100



3 Block A | East Elevation
1:100



4 Block A | West Elevation
1:100

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GRAPHIC SCALE 1:100[m]
0 1 2 3 4 5 6

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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Elevations | Block A

RevID	ChID	Change Name	Date

MOORE DESIGN

Design: CM | A2 Scale:1:100 | SHEET No. RC08 | REV No.
Drawn: CP | Date: 29/07/2025
Checked: GC | Job No: J1222

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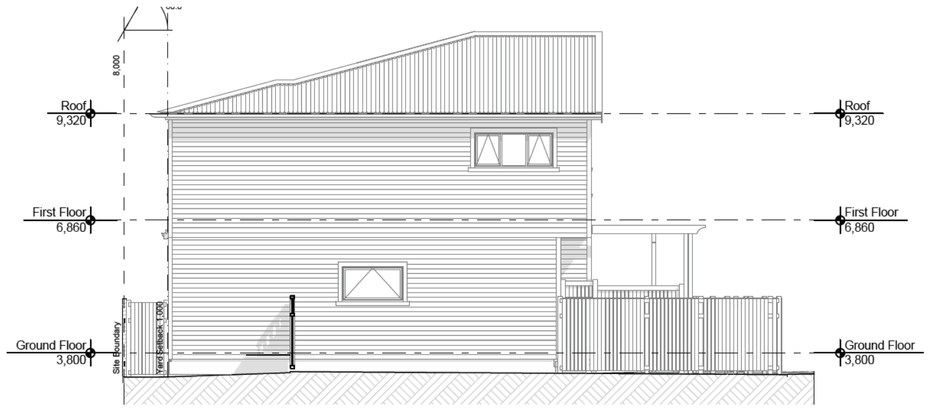
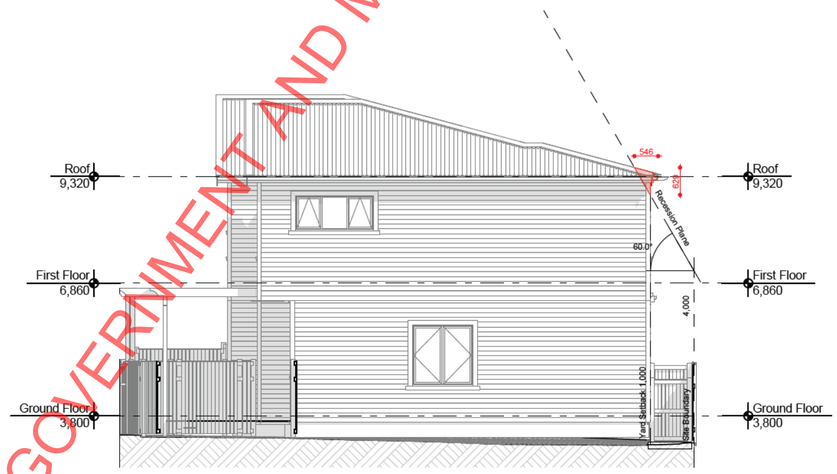
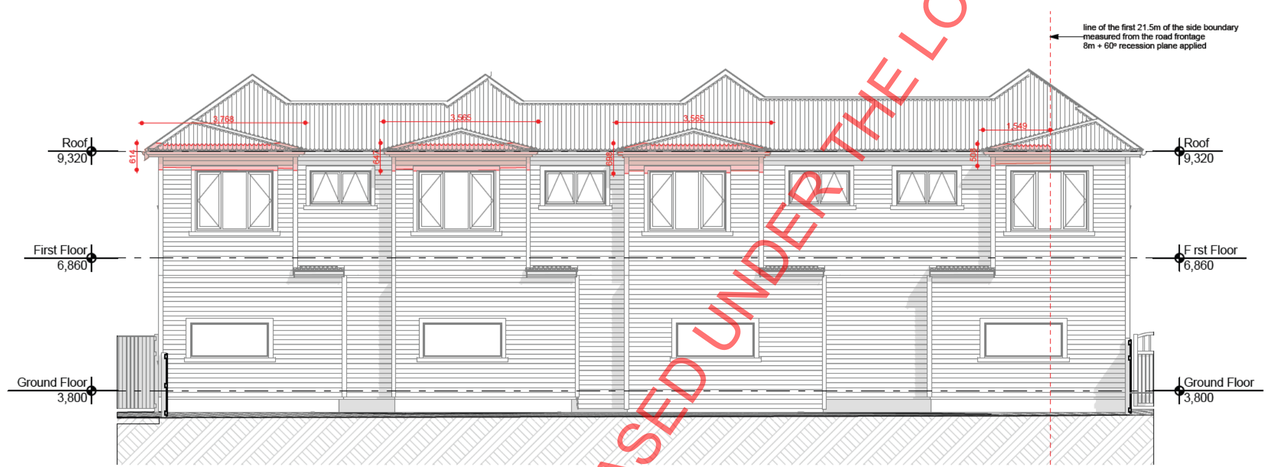
1 Block B | North Elevation
1:100



1 Block B | East Elevation
1:100



1 Block B | West Elevation
1:100



1 Block B | South Elevation
1:100

GRAPHIC SCALE 1:100[m]
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Risk Factor	Description	Risk	Score
Wind Zone	High	M	1
Number of Storeys	2-Storey	H	2
Roof/Wall Intersection Design	Fully protected (e.g. hip and gable roof with eaves)	L	0
Eaves Width	100mm - 450mm wide	VH	5
Envelope Complexity	Moderately complex shape with no more than 2 cladding types.	M	1
Deck Design	Timber slat deck at ground floor level	L	0
		Total Score:	9

Selected Claddings:
1. Bevel back timber weatherboard over nominal 20mm drained cavity
2. Rusticated timber weatherboard over nominal 20mm drained cavity

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Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Elevations | Block B

RevID	ChID	Change Name	Date

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Design: CM	A2 Scale:1:100	SHEET No.	REV No.
Drawn: CP	Date: 29/07/2025	RC09	
Checked: GC	Job No: J1222		

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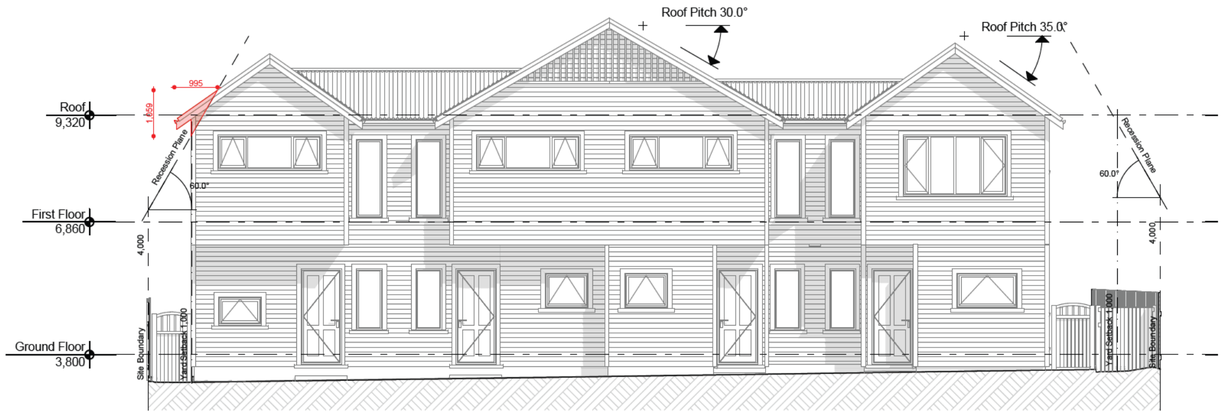
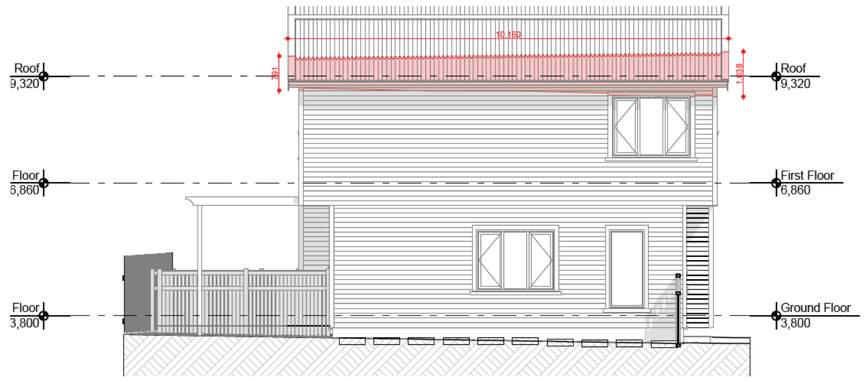
Risk Factor	Description	Risk	Score
Wind Zone	High	M	1
Number of Storeys	2-Storey	H	2
Roof/Wall Intersection Design	Fully protected (e.g. hip and gable roof with eaves)	L	0
Eaves Width	100mm - 450mm wide	VH	5
Envelope Complexity	Moderately complex shape with no more than 2 cladding types.	M	1
Deck Design	Timber slat deck at ground floor level	L	0
			Total Score: 9

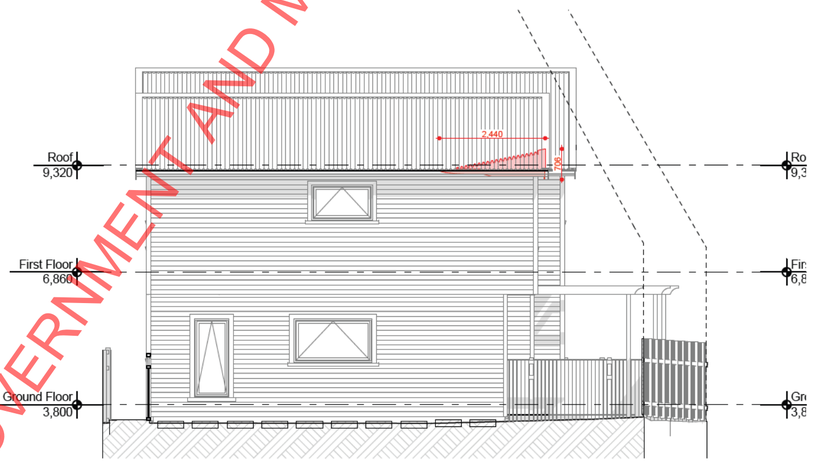
Selected Claddings:
1. Bevel back timber weatherboard over nominal 20mm drained cavity
2. Rusticated timber weatherboard over nominal 20mm drained cavity



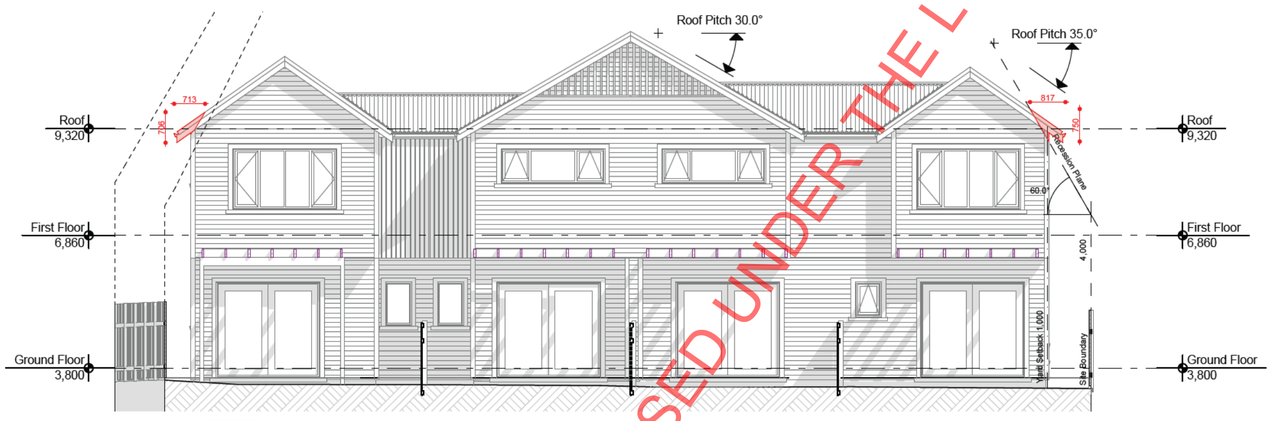
1 Block C | East Elevation
1:100



2 Block C | South Elevation
1:100



3 Block C | North Elevation
1:100



4 Block C | West Elevation
1:100

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0 1 2 3 4 5 6

Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Elevations | Block C

RevID	ChID	Change Name	Date

MOORE DESIGN

Design: CM | A2 Scale:1:100 | SHEET No. | REV No.
Drawn: CP | Date: 29/07/2025 | RC10
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1 Block A - View 1



1 Block A - View 2

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Project:	Client:	Contents:	RevID	ChID	Change Name	Date					
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	3D View | Block A					MOORE DESIGN	Design: CM Drawn: CP Checked: GC	A2 Scale: N/A Date: 29/07/2025 Job No: J1222	SHEET No. RC11	REV No.

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1 Block B - View 1



1 Block B - View 2

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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: 3D View | Block B

RevID	ChID	Change Name	Date

MOORE DESIGN

Design: CM | A2 Scale: N/A | SHEET No. | REV No.
Drawn: CP | Date: 29/07/2025 | RC12
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1 Block C - View 1



1 Block C - View 2

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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: 3D View | Block C

RevID	ChID	Change Name	Date

MOORE DESIGN

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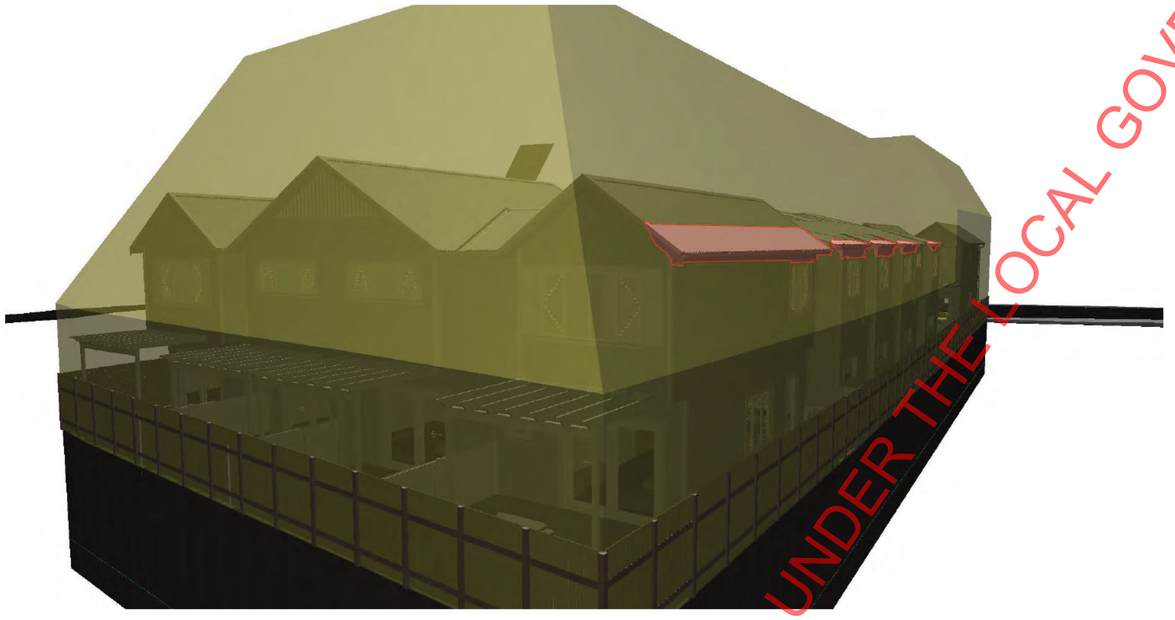
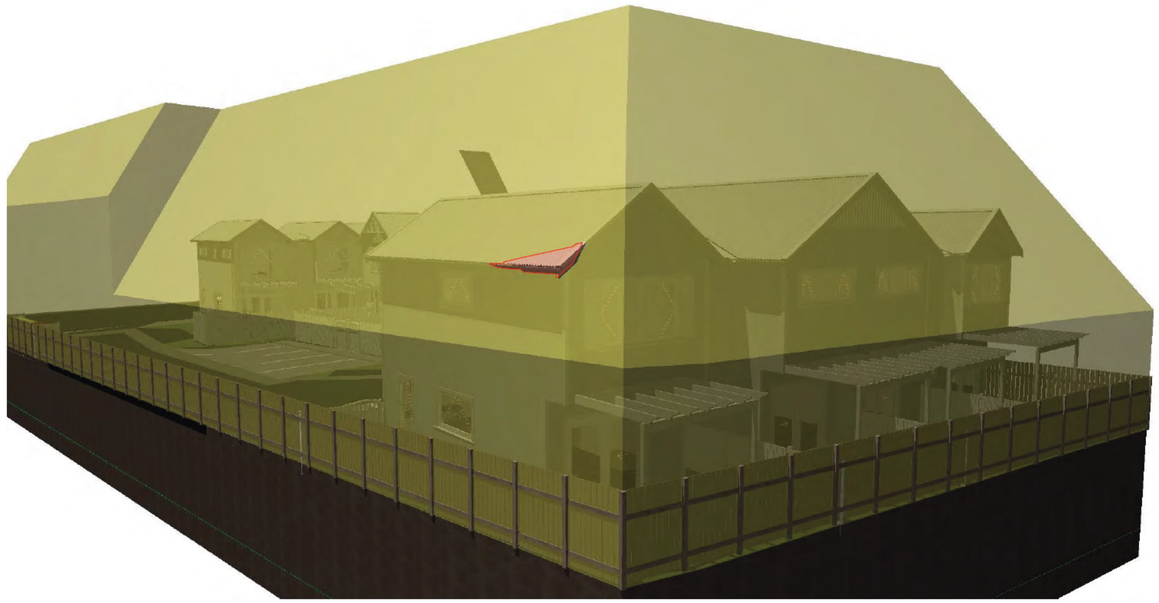
1 South East Perspective



2 North East Perspective



3 South West Perspective



4 North West Perspective

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Project:	Client:	Contents:	RevID	ChID	Change Name	Date				
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	3D Views - Sunlight Access Planes					MOORE DESIGN	Design: CM Drawn: CP Checked: GC	A2 Scale: N/A Date: 29/07/2025 Job No: J1222	SHEET No. RC14 REV No.

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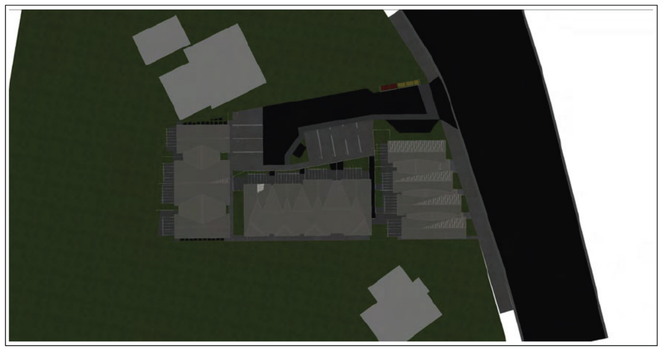

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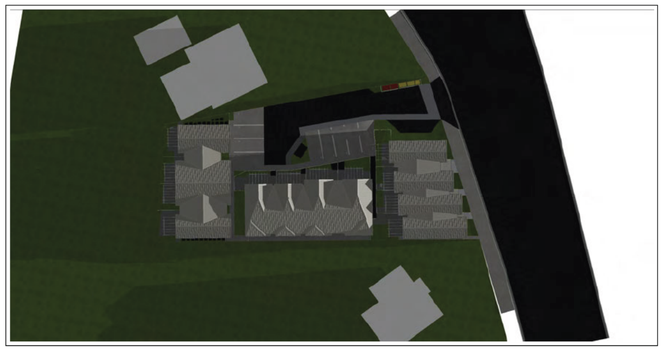
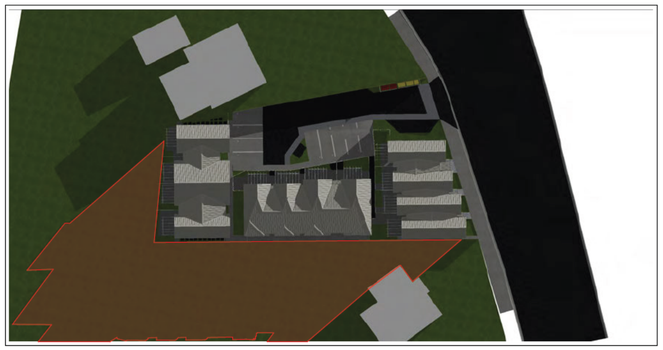


5 Equinox 08h00



9 Summer 08h00



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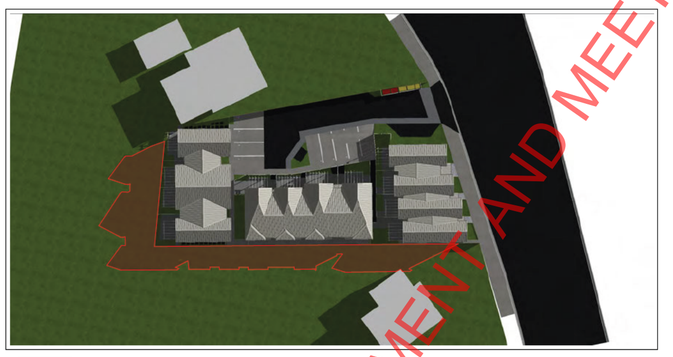


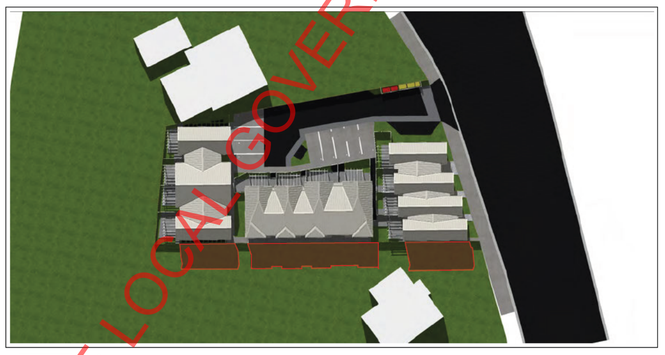
6 Equinox 10h00



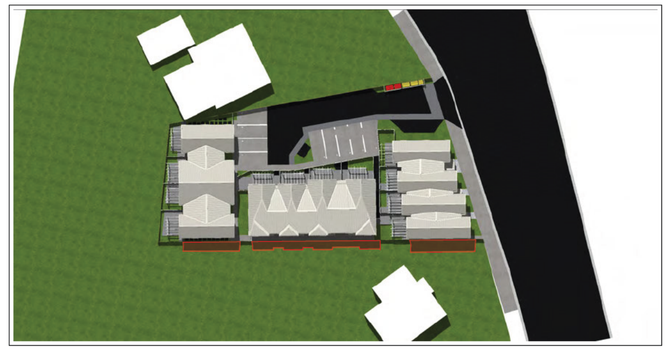
10 Summer 10h00



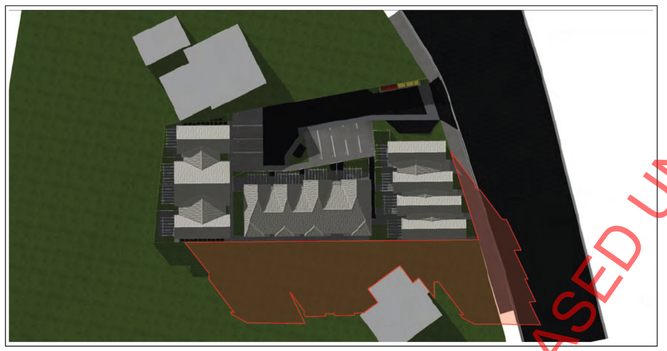
3 Winter 14h00



7 Equinox 14h00



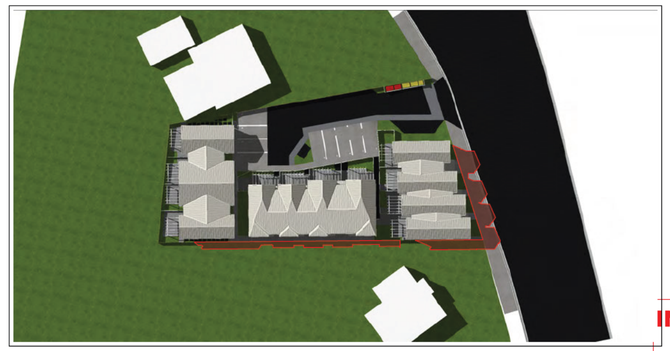
11 Summer 14h00



4 Winter 16h00



8 Equinox 16h00



12 Summer 16h00

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Project: **85 Ludlam Crescent** Woburn, Lower Hutt	Client: William Edmonds	Contents: Sun Study | SImple	RevID / ChID / Change Name / Date	MOORE DESIGN	Design: CM · Drawn: CP · Checked: GC · A2 Scale: N/A · Date: 29/07/2025 · Job No: J1222 · SHEET No. RC15 · REV No.

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GENERAL NOTES

1. REFER TO SHEET 2 FOR THE SITE DETAILS, EASEMENT TABLES & SITE COVERAGE.
2. STORMWATER NEUTRALITY DESIGN IS BY E2 ENVIROMENTAL LTD, REFER TO PC1 COMPLIANCE LETTER FOR FURTHER DETAILS
3. EACH LOT WILL HAVE A PROPOSED 20mm ID PE100 PN16 WATER LATERAL WITH A 20mm MANIFOLD CONNECTION AT THE LOT BOUNDARY.
4. EACH LOT WILL HAVE A PROPOSED 100mm uPVC (SN16 OR SN6 AS APPROPRIATE) STORMWATER LATERAL, WHICH WILL CONNECT TO A PROPOSED SHARED STORMWATER MAIN & THEN TO THE EXISTING PUBLIC STORMWATER NETWORK WITHIN LUDLAM CRES. EACH LOT WILL HAVE A 500L ABOVE GROUND TANK OR 2 x AQUACOMB 250L UNITS (DETAILS TBC AT BUILDING CONSENT STAGE) IF REQUIRED BY GWRC FOR HYDROLOGICAL CONTROL. IN ADDITION TO THIS, THERE WILL BE A COMBINED BELOW GROUND DETENTION SYSTEM IN THE ACCESSWAY CONSISTING OF CITREX RAINSMART SW MODULES.
5. EACH LOT WILL HAVE A PROPOSED 100mm uPVC (SN16 OR SN6 AS APPROPRIATE) SEWER LATERAL, WHICH WILL CONNECT TO A PROPOSED 150mm uPVC SN16 SHARED SEWER WHICH CONNECTS TO THE EXISTING PUBLIC SEWER MAIN WITHIN LUDLAM CRES.
6. ABANDONED PIPES, DUCTS & LATERALS ARE SHOWN AS GREY, ALL WORKS TO ABANDON EXISTING WATER SUPPLY, SEWER & STORMWATER LATERALS SHALL COMPLY WITH COUNCIL REQUIREMENTS.
7. TREES 1-8 TO BE RETAINED. TPZ=TREE PROTECTION ZONE, SPZ=STRUCTURAL ROOT ZONE. SEE TREE ASSESSMENT & TREE PROTECTION MANAGEMENT PLAN BY TEND TREE CONSULTANTS LTD.
8. SEE LANDSCAPE PLANS FOR PROPOSED FINAL EXTERNAL SITE BOUNDARY FENCING.

Amalgamation condition: That Lot 13 hereon (legal access) to be held as to 12 undivided shares by the owners of Lots 1-12 hereon as tenants in common in the said shares and that individual records of title be issues in accordance herewith. LINZ reference number xxxxxx.

LEGEND

- EXISTING STORMWATER (CCTV/GIS)
- EXISTING SEWER (CCTV/GIS)
- EXISTING WATER (GIS)
- EXISTING CHORUS (B4UDIG)
- EXISTING ONE NZ (B4UDIG)
- EXISTING POWER (B4UDIG)
- EXISTING GAS (B4UDIG)
- EXISTING MANHOLE
- EXISTING TOBY
- EXISTING SUMP
- EXISTING POWER PILLAR
- EXISTING CHORUS PILLAR
- PROPOSED STORMWATER
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED CHORUS
- PROPOSED ELECTRICITY
- PROPOSED SUMP
- PROPOSED MANHOLE
- PROPOSED TOBY
- PROPOSED VALVE

PART LOT 2
DP 6062
#87 LUDLAM CRESCENT

PART LOT 9
DP 5877
#160 WOBURN ROAD

LOT 2
DP 48214
#81 LUDLAM CRESCENT

LOT 1
DP 48214
#83 LUDLAM CRESCENT

LUDLAM CRESCENT

ACCESS LOT 13
TOTAL AREA 408m2

LOT 12
TOTAL AREA 88m2

LOT 11
TOTAL AREA 63m2

LOT 10
TOTAL AREA 66m2

LOT 9
TOTAL AREA 82m2

LOT 8
TOTAL AREA 97m2

LOT 7
TOTAL AREA 70m2

LOT 6
TOTAL AREA 79m2

LOT 5
TOTAL AREA 96m2

LOT 4
TOTAL AREA 77m2

LOT 3
TOTAL AREA 65m2

LOT 2
TOTAL AREA 70m2

LOT 1
TOTAL AREA 98m2

(ALL OF LOT 13 EXCLUDING CAR PARKS)
(LOT 12 CAR PARK)
(LOT 11 CAR PARK)
(LOT 10 CAR PARK)
(LOT 9 CAR PARK)
(LOT 8 CAR PARK)
(LOT7 CAR PARK)
(LOT 6 CAR PARK)
(LOT 5 CAR PARK)
(LOT 1 CAR PARK)
(LOT 4 CAR PARK)
TURNING

PR. ELECTRICITY & CHORUS DUCTS. CONNECTIONS WITHIN THE ROAD RESERVE TBC BY THE SERVICE PROVIDERS

PR. COMBINED DETENTION SYSTEM CONSISTING OF 200 DOUBLE UNIT CIRTEX RAINSMART SW MODULES (BASED ON SURFACING WITHIN ACCESS LOT 13 BEING FULLY PERMEABLE)

PR. 1050Ø MANHOLES

PR. 600Ø MANHOLE

PR. 600Ø MANHOLES

PR. 1050Ø MANHOLES

PR. RIDER MAIN SCOUR VALVE

RUBBISH BIN STORAGE & COLLECTION FOR LOTS 1-12

1.0m SETBACK

1.5m SETBACK

OUTDOOR LIVING

EX. VEHICLE CROSSING TO BE WIDENED & MADE HEAVY DUTY FOR THE ACCESSWAY

PR. 150mm uPVC SHARED PRIVATE SEWER WITH "Y" JUNCTION CONNECTION TO THE PUBLIC MAIN

PR. 150mm uPVC SN16 SHARED PRIVATE STORMWATER WITH CONNECTION TO EX. PUBLIC MAIN

ABANDON & CAP OFF THE EXISTING SW LATERAL CONNECTING TO THE MAIN

PR. 63mm OD PE100 PN16 SDR11 RIDER MAIN WITH GATE VALVE TO VEST WITH HCC

PR. 32mm ID PE100 PN16 SDR11 CONNECTION SUPPLIES JUMBO TOBY WITH 2x20mm ID PRIVATE LATERALS FOR LOTS 3 & 4

EX. POWER PILLAR TO BE REMOVED

EX. CHORUS CABINETS AND MANHOLES TO BE RELOCATED

PR. 32mm ID PE100 PN16 SDR11 CONNECTION SUPPLIES JUMBO TOBY WITH 2x20mm ID PRIVATE LATERALS FOR LOTS 1 & 2

LL=3.80 IL=NOT OBTAINED

ABANDON & CAP OFF AT THE MAIN THE EXISTING SITE SEWER LATERAL

ABANDON, CAP OFF & SEAL EXISTING SW LATERAL TO KERB

EX. VEHICLE CROSSING

LL=3.54 IL=NOT OBTAINED

PR. CLEANING EYES ON 150mm uPVC SN16 SHARED DRAINAGE LINES

TREE 9 MAGNOLIA TO BE REMOVED

PR. CLEANING EYES ON 150mm uPVC SN16 SHARED DRAINAGE LINES

EX. GAS CONNECTION TO BE DECOMMISSIONED

EX. WATER TOBY & LATERAL CONNECTION TO BE REMOVED & CAPPED OFF AT THE MAIN

EX. DN525 RC SANITARY SEWER MAIN (GIS)

EX. DN300 RC STORMWATER MAIN (GIS)

EX. DN150 AC WATER MAIN (GIS)

KERB AND CHANNEL

CONCRETE FOOTPATH

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RELEASED UNDER THE LOCAL GOVERNMENT OFFICIAL INFORMATION AND MEETINGS ACT 1987

DRAFT

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YOUR LAND DEVELOPMENT CONSULTANTS
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Cnr. King & Main Streets, PO Box 40083, Upper Hutt
ph: 04 527 9028

LOTS 1-13 BEING A SUBDIVISION OF LOT 1 DP 11523
85 LUDLAM CRESCENT, LOWER HUTT
Prepared for Will Edmonds

SCALE:	1:200 @ A3
CHECKED:	KC 14 JUL 2025
FIELDWORK:	BLS 12 FEB 2025
DRAWN:	JWM 16 JUL 2025

JOB/DRAWING NUMBER
35176

Sheet 1 of 2

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 Edmonds SCHEME.dwg Wednesday, 16 July 2025 4:47:04 pm

NOTES:

1. HEIGHTS ARE IN TERMS OF NEW ZEALAND WELLINGTON VERTICAL DATUM 1953.
   ORIGIN OF HEIGHTS IS: PENROSE STREET (BDNG), RL=3.96m, SOURCED: CONVERTED FROM LINZ GEODETIC DATABASE NEW ZEALAND VERTICAL DATUM 2016 HEIGHT OF RL=3.576m, SOURCED DATE: 11 FEB 2025.
   SITE BENCHMARK IS: RM I FB 4553 P29, BRASS PLAQUE UNDER CAST IRON COVER IN FOOTPATH, RL=3.17m
2. "SPOT HEIGHT" POSITIONS ARE SHOWN IN THE FOLLOWING FORMAT x36.24 AND ARE EXPRESSED IN METRES IN TERMS OF THE SITE DATUM FOR THE SURVEY.
   THE HEIGHTS OF THESE POSITIONS HAVE AN ACCURACY RELATIVE TO THE SITE DATUM AS FOLLOWS:
   - HARD SURFACES EG CONCRETE, ASPHALT +/- 0.030m @ 95% CONFIDENCE LEVEL.
   - SOFT SURFACES EG GRASS +/- 0.050m @ 95% CONFIDENCE LEVEL
3. NOT ALL SPOT HEIGHTS HAVE BEEN SHOWN ON THIS PLAN FOR CLARITY.
4. CONTOURS SHOWN ON THIS SURVEY ARE INTERPOLATED FROM SURVEYED "SPOT HEIGHT" POSITIONS. THEREFORE THE LOCATION AND VALUES OF THE CONTOUR MODEL IS DEPENDENT ON THE DENSITY OF THE SURVEYED SPOT HEIGHTS. THIS SURVEY DEPICTS A CONTOUR INTERVAL OF 0.50m WITH AN ACCURACY RELATIVE TO THE HEIGHT DATUM OF +/- 0.25m AT A 95% CONFIDENCE LEVEL.
5. UNLESS SHOWN OTHERWISE, UNDERGROUND SERVICE INFORMATION SHOWN ON THIS PLAN IS DIGITIZED FROM HUTT CITY COUNCIL GIS INFORMATION AND HAS NOT BEEN VERIFIED BY THE SURVEYING COMPANY (WELLINGTON) LTD. THE LOCATION OF UNDERGROUND SERVICES SHOULD BE LOCATED BY THE CONTRACTOR PRIOR TO ANY WORK BEING CARRIED OUT.
6. WHERE INFORMATION SHOWN ON THIS PLAN IS USED FOR SUNLIGHT ACCESS/HEIGHT PLANES WHICH ARE CRITICAL, GROUND LEVELS SHOULD BE CONFIRMED BY ADDITIONAL SURVEY OF THE CRITICAL POINTS ON THE GROUND.
7. ALL SURVEYED TREES SHOWN ON THIS PLAN ARE NIKAU PALMS, SOME NIKAU PALMS MAY NOT HAVE BEEN SURVEYED.

LOCAL AUTHORITY	HUTT CITY COUNCIL
CURRENT ZONING	HIGH DENSITY RESIDENTIAL (WITH FLOOR HAZARD OVERLAY)
TOTAL AREA	1359m² (RT AREA)
COMPRISED IN RT	WN464/170
REGISTERED OWNERS	NEROLE JOCELYN DAVIES

PART LOT 2
DP 6062
#87 LUDLAM CRESCENT

LOT 1
DP 11523
#85 LUDLAM CRESCENT

PART LOT 9
DP 5877
#160 WOBURN ROAD

LOT 2 DP 48214
#81 LUDLAM CRESCENT

LOT 1
DP 48214
#83 LUDLAM CRESCENT

LUDLAM CRESCENT

VEHICLE CROSSING

SITE BENCHMARK
RM I FB 4553 P29
BRASS PLAQUE UNDER CAST
IRON COVER IN FOOTPATH
RL=3.17m

DOWN PIPE DISCHARGES TO GROUND

SEAL DRIVEWAY

FLUSH NIB KERB

KERB AND CHANNEL

CONCRETE FOOTPATH

SHED

CARPORT

SOAK PIT
-0.54

DWELLING
APPROXIMATE GROUND LEVEL FOOTPRINT 179m²
APPROXIMATE UPPER LEVEL FOOTPRINT 113m²

GARAGE

POWER PILLAR

CHORUS CABINETS AND MANHOLES

LL=3.80
IL=NOT OBTAINED

LL=3.54
IL=NOT OBTAINED

SWOUT

VEHICLE CROSSING

259°27'05"
269°00'10"
161°49'55"
5°06'00"

LEGEND:

× 77.80	SPOT HEIGHT	D	DOWN PIPE	77.80	EDGE OF SEAL
MH	MANHOLE	SWOUT77.80	STORMWATER OUTLET		BUILDING
W	TOBY	⊗	VENT	EA77.80	EAVE
	SUMP	G	GULLY TRAP	DK77.80	DECK
		P	POWER PILLAR	SL77.80	SOFFIT
		T	CHORUS PILLAR		
			GATE		
			TREE		
		77.80	FENCE		

SS	SEWER MAIN / LATERAL (SCALED HCC GIS)	-77.80	STORMWATER MAIN / LATERAL (CCTV)
-77.80	SEWER MAIN / LATERAL (CCTV)	W	WATER MAIN / LATERAL (SCALED HCC GIS)
SW	STORMWATER MAIN / LATERAL (SCALED HCC GIS)		

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Cnr. King & Main Streets, PO Box 40083, Upper Hutt
ph: 04 527 9028

TOPOGRAPHICAL SURVEY OF
85 LUDLAM CRESCENT, LOWER HUTT
PREPARED FOR WILL EDMONDS

SCALE:	1:200 @ A3
CHECKED:	
FIELDWORK:	BLS 12 FEB 2025
DRAWN:	BLS 13 FEB 2025
JOB/DRAWING NUMBER	35176
	Sheet 1 of 1

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 EDMONDS TOPO.dwg Tuesday, 18 February 2025 8:01:40 am

85 Ludlam Crescent

William Edmonds

Project No:J1222

Permitted Baseline

Date issued:
29/07/2025



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Permitted Baseline
21 July 2025

Sheet Index

No.	Rev	Name
		Cover sheet
RC01		Index | Site Location Plan
RC02		Site Plan
RC03		3D Views
RC04		3D Views - Sunlight Access Planes
RC05		Sun Study | SImple
RC06		Additional Survey Information

Project Description:

The permitted baseline for this site would incude the construction of three residential dwellings per site, provided they comply with the permitted activity conditions of the District Plan.

In this instance, the permitted baseline would include the construction of three new dwellings, within the 4m + 60 degree recession plane envelope.

30% permeable surface area must be provided and up to 50% of the site can be covered by buildings. Landscaped area of 20% is to be provided.

Legal Description:

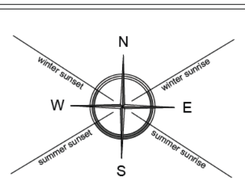
Address:	85 Ludlam Crescent, Woburn, Lower Hutt.
District Plan Zone:	High Density Residential
Lot No.:	1
DP No.:	11523
Legal Description:	ALL DP 11523 WN464/170
Site area:	1359
CT No.:	464/170

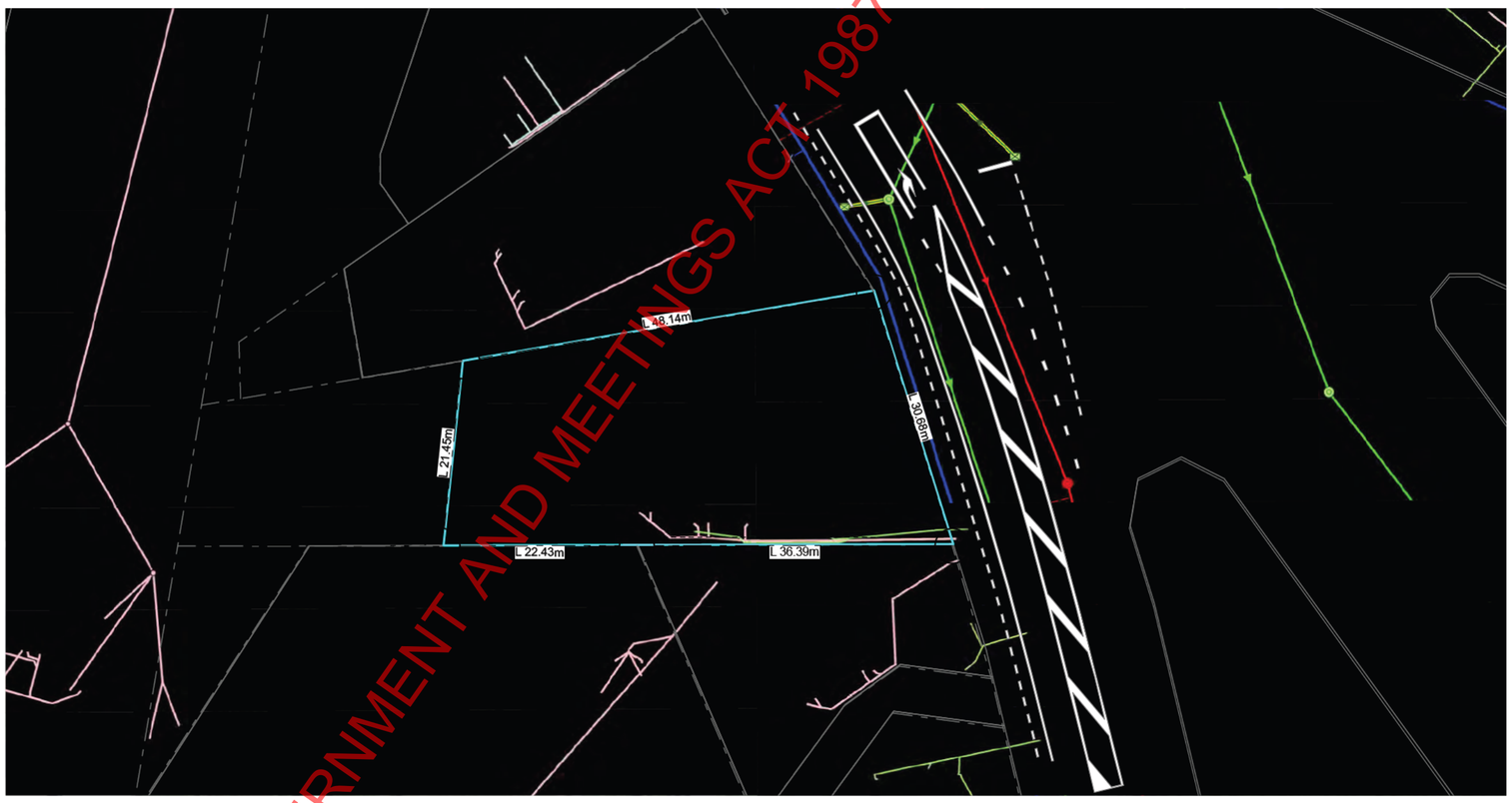
Design Criteria:

Wind zone:	High
Earthquake zone:	Zone 3
Exposure zone:	Zone C
Floor load:	1.5 kPa 2kPa 3kPa
Deck load:	2 kPa
Climate Zone:	3
Altitude:	3.3m
Soil type:	Class D – "Deep Soil"
Risk Group:	SH
Flood Zone:	Flood Hazard

Site Coverage Calculation:

Site gross area:	1359 m²
Block A foot print:	170.36 m²
Block B foot print:	208.12 m²
Block C foot print:	177.03 m²
Total building foot print:	**555.51 m²**
Site coverage:	**40.88 %**
Site coverage allowed:	50%





1 Site Location Plan
1:500

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GRAPHIC SCALE 1:200[m]
0 2 4 6 8 10

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Project: **85 Ludlam Crescent**, Woburn, Lower Hutt	Client: William Edmonds	Contents: Index | Site Location Plan	RevID / ChID / Change Name / Date	Design: CM	A2 Scale:1:500
				Drawn: CP	Date: 29/07/2025
				Checked: GC	Job No: J1222
					SHEET No. **RC01** / REV No.

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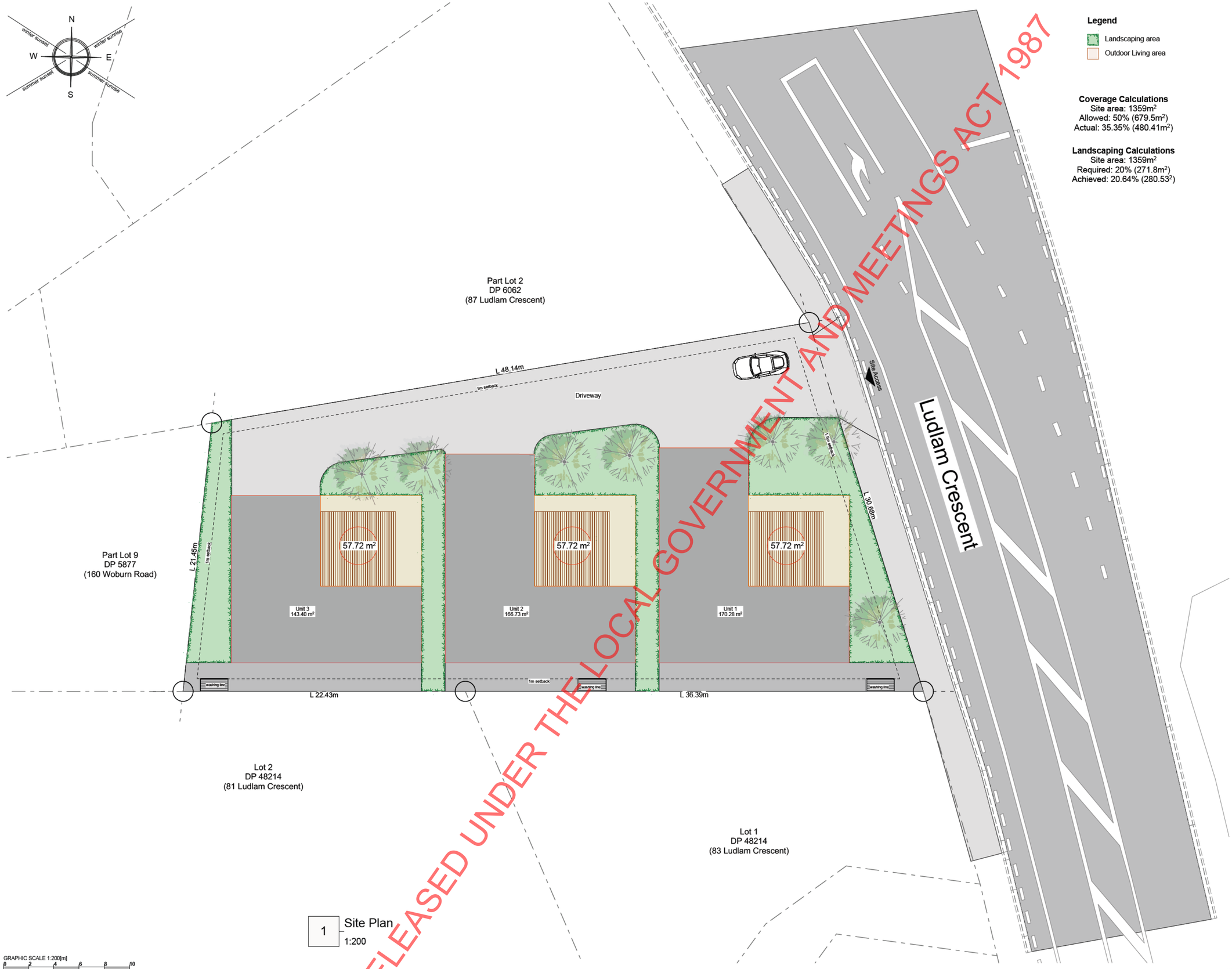

1 Site Plan
1:200

Legend

- Landscaping area
- Outdoor Living area

Coverage Calculations
Site area: 1359m²
Allowed: 50% (679.5m²)
Actual: 35.35% (480.41m²)

Landscaping Calculations
Site area: 1359m²
Required: 20% (271.8m²)
Achieved: 20.64% (280.53²)

Site Coverage	
	Area
Unit 1	170.28
Unit 2	166.73
Unit 3	143.40
	480.41 m²

Areas Schedule

Site area (m²)		**1,359.00**
Coverage	Unit 1	170.28
	Unit 2	166.73
	Unit 3	143.40
		480.41
Floor area	Unit 1	334.00
	Unit 2	327.00
	Unit 3	281.06
		942.06
Coverage	35.4%	
FAR	0.69	

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Project:	Client:	Contents:	RevID	ChID	Change Name	Date
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Site Plan				

MOORE DESIGN

Design: CM	A2 Scale:1:200, 1:1	SHEET No.	REV No.
Drawn: CP	Date: 29/07/2025	RC02	
Checked: GC	Job No: J1222		

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1 South East Perspective



3 South West Perspective



2 North East Perspective



4 North West Perspective

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Project:	Client:	Contents:	RevID	ChID	Change Name	Date				
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	3D Views					MOORE DESIGN	Design: CM Drawn: CP Checked: GC	A2 Scale: N/A Date: 29/07/2025 Job No: J1222	SHEET No. RC03 REV No.

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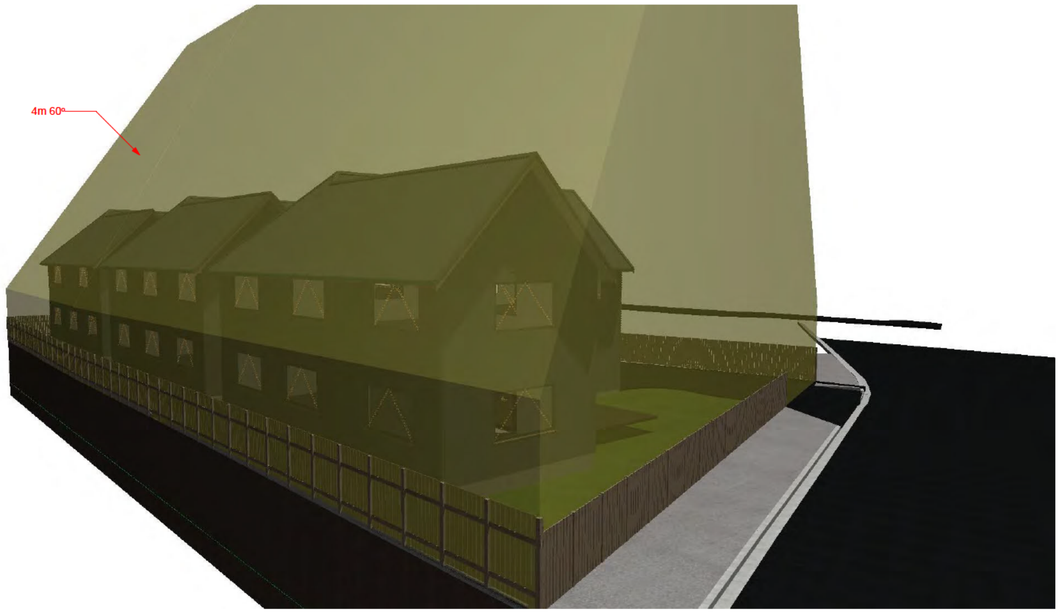
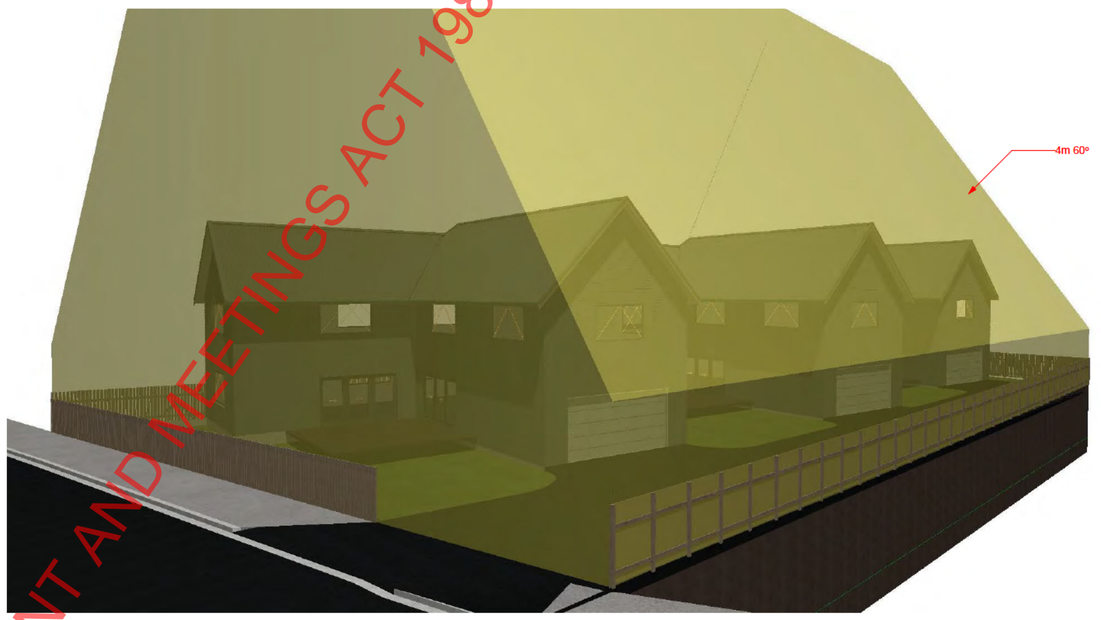
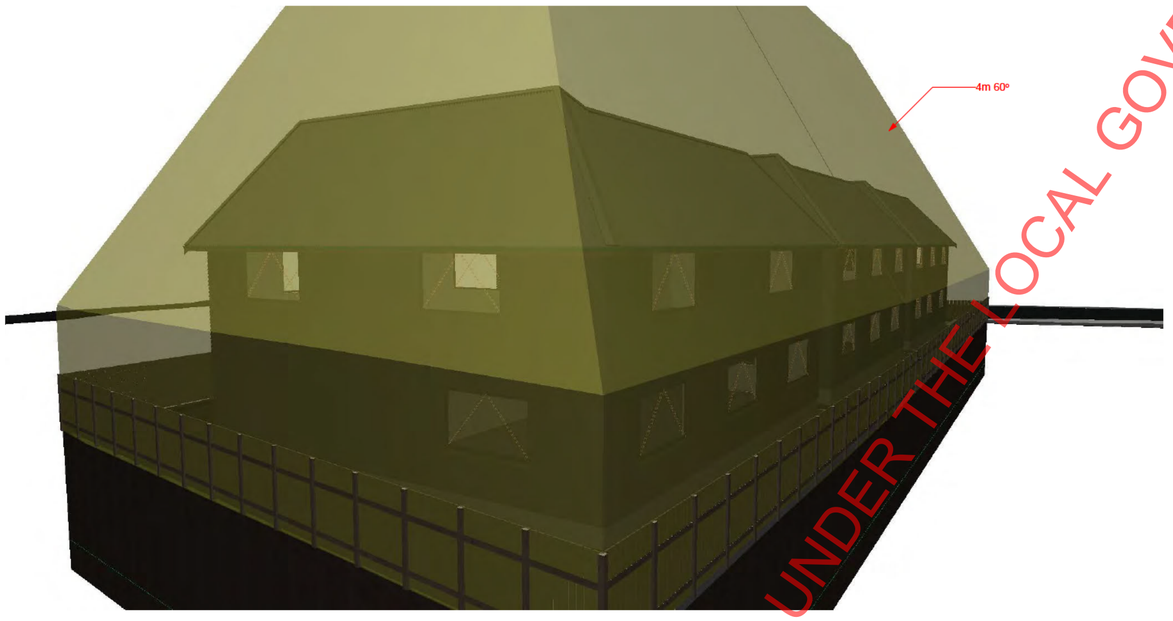


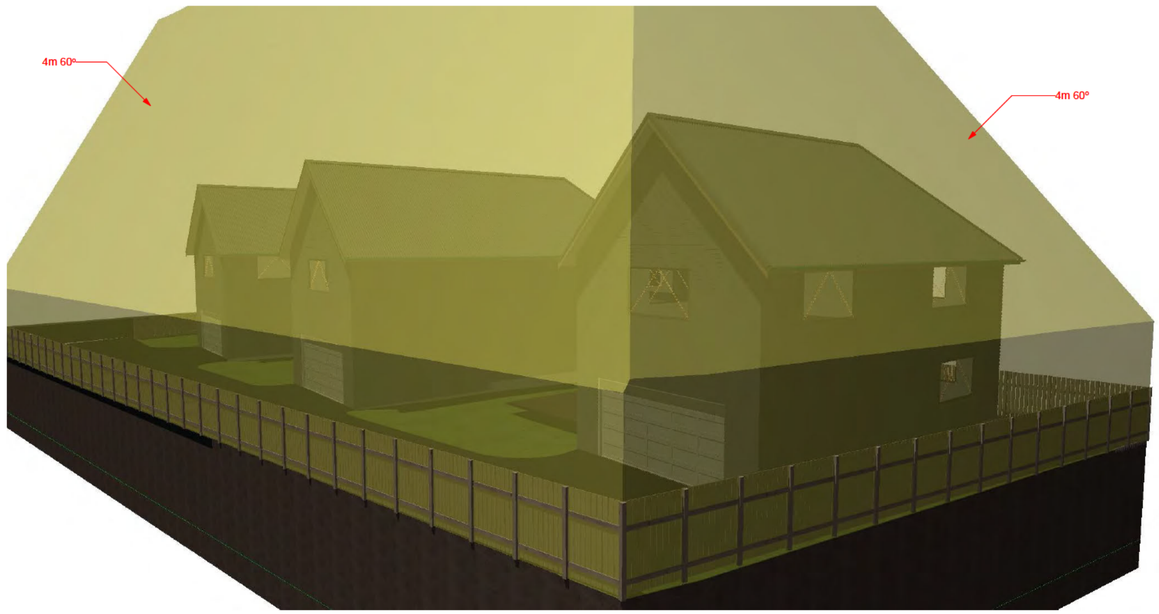
1 South East Perspective



2 North East Perspective



3 South West Perspective



4 North West Perspective

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ARTISTIC IMPRESSION ONLY

Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:	RevID	ChID	Change Name	Date					
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	3D Views - Sunlight Access Planes					MOORE DESIGN	Design: CM Drawn: CP Checked: GC	A2 Scale: N/A Date: 29/07/2025 Job No: J1222	SHEET No. RC04	REV No.

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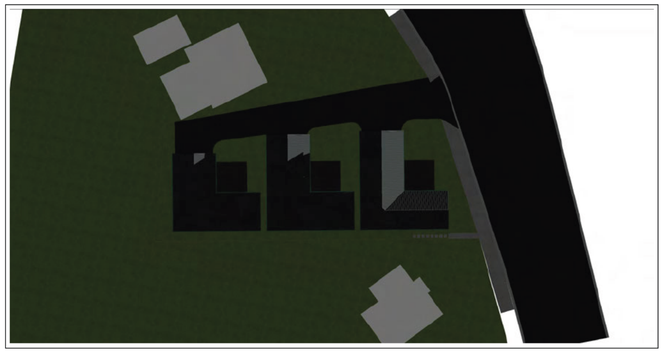
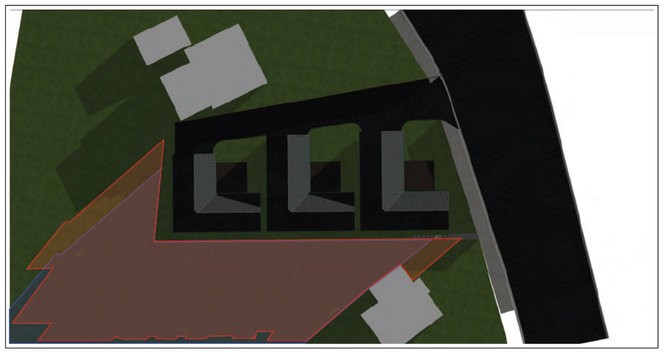
p: 04 5665002 e: cam@mooredesign.nz w: www.mooredesign.nz

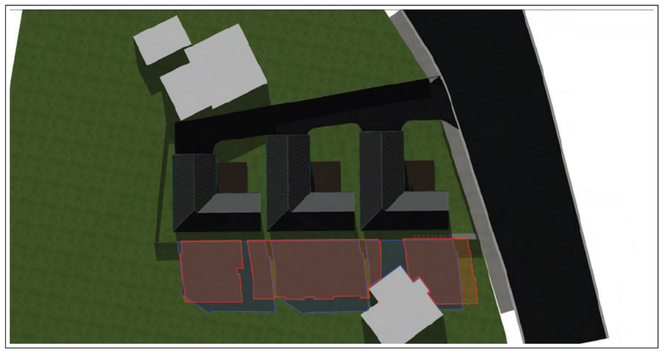
1:50 pm 29/07/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Resource Consent/J1222 - 85 Ludlam Crescent - PB - 21.07.2025



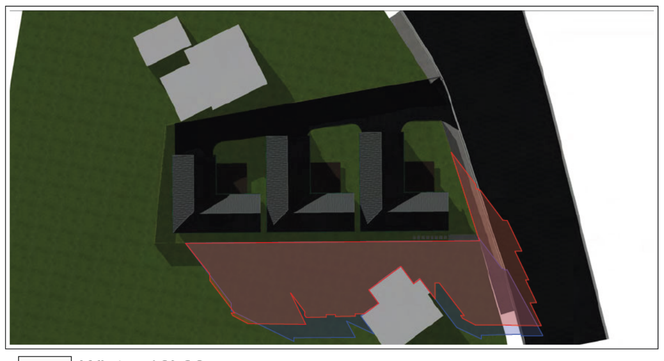
1 Winter 08h00



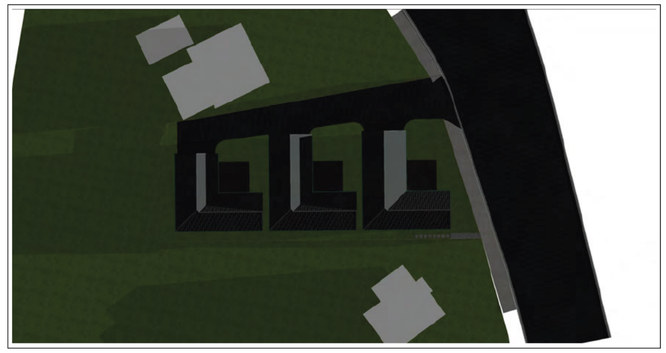
2 Winter 10h00



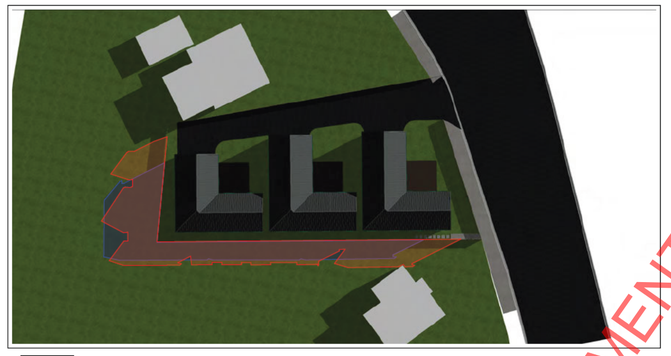
3 Winter 14h00



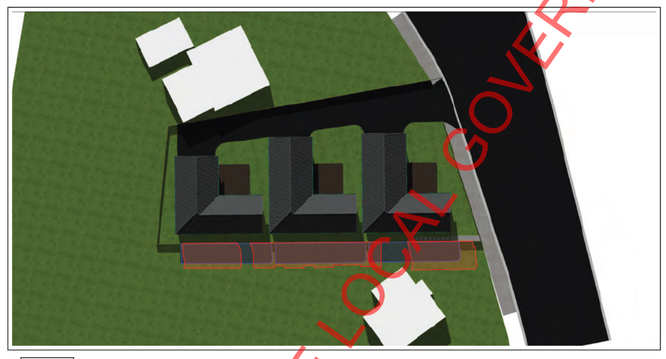
4 Winter 16h00



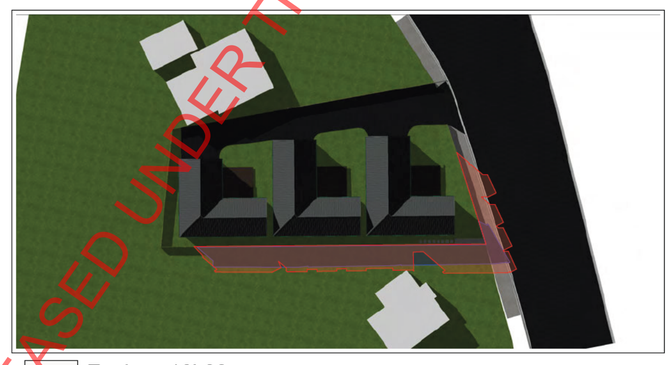
5 Equinox 08h00



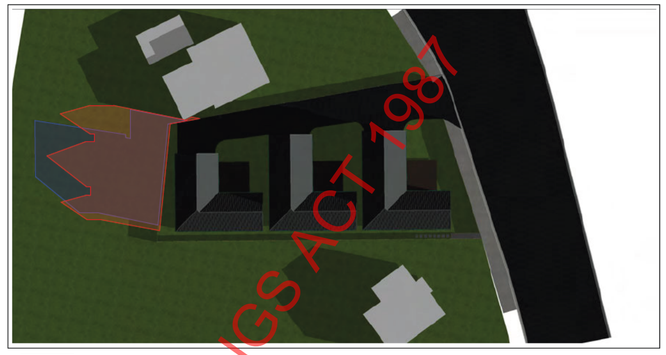
6 Equinox 10h00



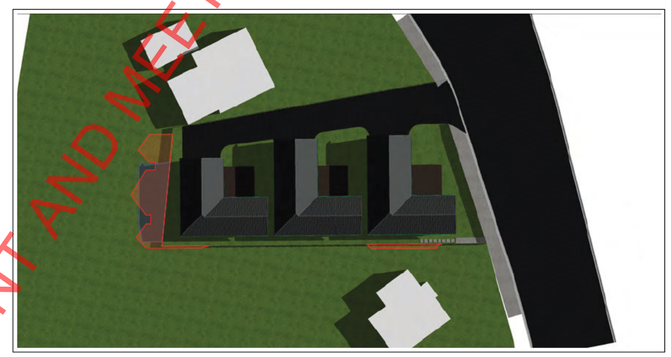
7 Equinox 14h00



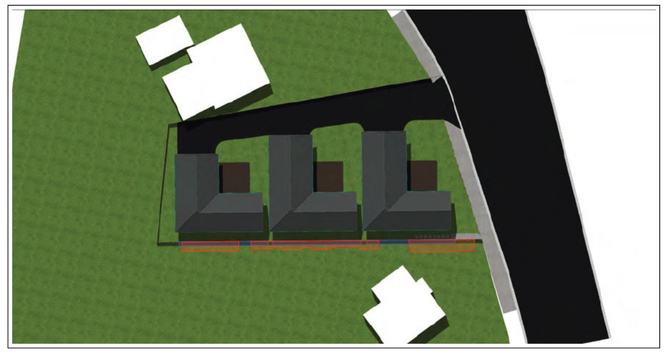
8 Equinox 16h00



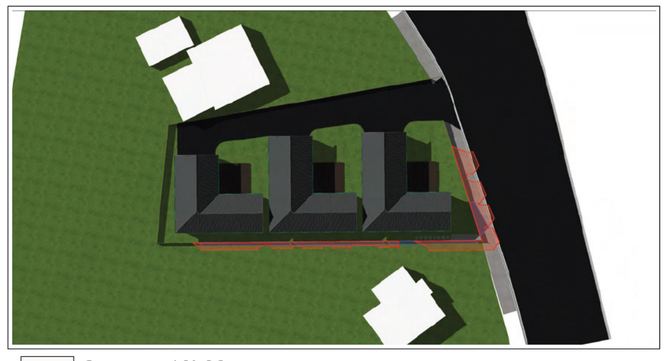
9 Summer 08h00



10 Summer 10h00



11 Summer 14h00



12 Summer 16h00

Proposed development shading

Permitted baseline shading

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ARTISTIC IMPRESSION ONLY

Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Sun Study | SImple

RevID	ChID	Change Name	Date

MOORE DESIGN

Design: CM | A2 Scale: N/A
Drawn: CP | Date: 29/07/2025
Checked: GC | Job No: J1222
SHEET No. RC05 | REV No.

Contractor to check dimensions on site prior to fabrication & construction.

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50 pm 29/07/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Resource Consent/J1222 - 85 Ludlam Crescent - PB - 21.07.2025

NOTES:

1. HEIGHTS ARE IN TERMS OF NEW ZEALAND WELLINGTON VERTICAL DATUM 1953.
   ORIGIN OF HEIGHTS IS: PENROSE STREET (BDNG), RL=3.96m, SOURCED: CONVERTED FROM LINZ GEODETIC DATABASE NEW ZEALAND VERTICAL DATUM 2016 HEIGHT OF RL=3.576m, SOURCED DATE: 11 FEB 2025.
   SITE BENCHMARK IS: RM I FB 4553 P29, BRASS PLAQUE UNDER CAST IRON COVER IN FOOTPATH, RL=3.17m
2. "SPOT HEIGHT" POSITIONS ARE SHOWN IN THE FOLLOWING FORMAT x36.24 AND ARE EXPRESSED IN METRES IN TERMS OF THE SITE DATUM FOR THE SURVEY.
   THE HEIGHTS OF THESE POSITIONS HAVE AN ACCURACY RELATIVE TO THE SITE DATUM AS FOLLOWS:
   - HARD SURFACES EG CONCRETE, ASPHALT +/- 0.030m @ 95% CONFIDENCE LEVEL.
   - SOFT SURFACES EG GRASS +/- 0.050m @ 95% CONFIDENCE LEVEL
3. NOT ALL SPOT HEIGHTS HAVE BEEN SHOWN ON THIS PLAN FOR CLARITY.
4. CONTOURS SHOWN ON THIS SURVEY ARE INTERPOLATED FROM SURVEYED "SPOT HEIGHT" POSITIONS. THEREFORE THE LOCATION AND VALUES OF THE CONTOUR MODEL IS DEPENDENT ON THE DENSITY OF THE SURVEYED SPOT HEIGHTS. THIS SURVEY DEPICTS A CONTOUR INTERVAL OF 0.50m WITH AN ACCURACY RELATIVE TO THE HEIGHT DATUM OF +/- 0.25m AT A 95% CONFIDENCE LEVEL.
5. UNLESS SHOWN OTHERWISE, UNDERGROUND SERVICE INFORMATION SHOWN ON THIS PLAN IS DIGITIZED FROM HUTT CITY COUNCIL GIS INFORMATION AND HAS NOT BEEN VERIFIED BY THE SURVEYING COMPANY (WELLINGTON) LTD. THE LOCATION OF UNDERGROUND SERVICES SHOULD BE LOCATED BY THE CONTRACTOR PRIOR TO ANY WORK BEING CARRIED OUT.
6. WHERE INFORMATION SHOWN ON THIS PLAN IS USED FOR SUNLIGHT ACCESS/HEIGHT PLANES WHICH ARE CRITICAL, GROUND LEVELS SHOULD BE CONFIRMED BY ADDITIONAL SURVEY OF THE CRITICAL POINTS ON THE GROUND.
7. ALL SURVEYED TREES SHOWN ON THIS PLAN ARE NIKAU PALMS, SOME NIKAU PALMS MAY NOT HAVE BEEN SURVEYED.

LOCAL AUTHORITY	HUTT CITY COUNCIL
CURRENT ZONING	HIGH DENSITY RESIDENTIAL (WITH FLOOR HAZARD OVERLAY)
TOTAL AREA	1359m² (RT AREA)
COMPRISED IN RT	WN464/170
REGISTERED OWNERS	NEROLE JOCELYN DAVIES

PART LOT 2
DP 6062
#87 LUDLAM CRESCENT

LOT 1
DP 11523
#85 LUDLAM CRESCENT

PART LOT 9
DP 5877
#160 WOBURN ROAD

LOT 2 DP 48214
#81 LUDLAM CRESCENT

LOT 1
DP 48214
#83 LUDLAM CRESCENT

LUDLAM CRESCENT

VEHICLE CROSSING

SITE BENCHMARK
RM I FB 4553 P29
BRASS PLAQUE UNDER CAST
IRON COVER IN FOOTPATH
RL=3.17m

DOWN PIPE DISCHARGES TO GROUND

SEAL DRIVEWAY

FLUSH NIB KERB

KERB AND CHANNEL

CONCRETE FOOTPATH

SHED

CARPORT

SOAK PIT
-0.54

DWELLING
APPROXIMATE GROUND LEVEL FOOTPRINT 179m²
APPROXIMATE UPPER LEVEL FOOTPRINT 113m²

GARAGE

POWER PILLAR

CHORUS CABINETS AND MANHOLES

LL=3.80
IL=NOT OBTAINED

LL=3.54
IL=NOT OBTAINED

SWOUT

VEHICLE CROSSING

259°27'05"
269°00'10"
161°49'55"
5°06'00"

LEGEND:

× 77.80	SPOT HEIGHT	D	DOWN PIPE	77.80	EDGE OF SEAL
MH	MANHOLE	SWOUT77.80	STORMWATER OUTLET		BUILDING
W	TOBY	⊗	VENT	EA77.80	EAVE
	SUMP	G	GULLY TRAP	DK77.80	DECK
		P	POWER PILLAR	SL77.80	SOFFIT
		T	CHORUS PILLAR		
			GATE		
			TREE		
		77.80	FENCE		

SS	SEWER MAIN / LATERAL (SCALED HCC GIS)	-77.80	STORMWATER MAIN / LATERAL (CCTV)
-77.80	SEWER MAIN / LATERAL (CCTV)	W	WATER MAIN / LATERAL (SCALED HCC GIS)
SW	STORMWATER MAIN / LATERAL (SCALED HCC GIS)		

THIS PLAN HAS BEEN PREPARED FOR THE PURPOSE OF SHOWING TOPOGRAPHICAL INFORMATION TO PLOT SCALE ONLY. UNAUTHORISED USE OR COPYING OF THIS PLAN FOR ANY OTHER PURPOSE IS NOT PERMITTED WITHOUT PRIOR CONSENT OF THE SURVEYING COMPANY (WELLINGTON) LIMITED. AREAS AND DIMENSIONS SHOWN ON THIS PLAN ARE SUBJECT TO CONFIRMATION BY FINAL SURVEY. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK. REFER ANY DISCREPANCIES TO THE SURVEYING COMPANY (WELLINGTON) LIMITED.

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THE SURVEYING COMPANY
YOUR LAND DEVELOPMENT CONSULTANTS
0800 TO SURVEY (0800 86 78 78) e-mail: projects@subdivision.net.nz
Cnr. King & Main Streets, PO Box 40083, Upper Hutt
ph: 04 527 9028

TOPOGRAPHICAL SURVEY OF
85 LUDLAM CRESCENT, LOWER HUTT
PREPARED FOR WILL EDMONDS

SCALE:	1:200 @ A3
CHECKED:	
FIELDWORK:	BLS 12 FEB 2025
DRAWN:	BLS 13 FEB 2025
JOB/DRAWING NUMBER	35176
	Sheet 1 of 1

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 EDMONDS TOPO.dwg Tuesday, 18 February 2025 8:01:40 am

GENERAL NOTES

1. REFER TO SHEET 2 FOR THE SITE DETAILS, EASEMENT TABLES & SITE COVERAGE.
2. STORMWATER NEUTRALITY DESIGN IS BY E2 ENVIROMENTAL LTD, REFER TO PC1 COMPLIANCE LETTER FOR FURTHER DETAILS
3. EACH LOT WILL HAVE A PROPOSED 20mm ID PE100 PN16 WATER LATERAL WITH A 20mm MANIFOLD CONNECTION AT THE LOT BOUNDARY.
4. EACH LOT WILL HAVE A PROPOSED 100mm uPVC (SN16 OR SN6 AS APPROPRIATE) STORMWATER LATERAL, WHICH WILL CONNECT TO A PROPOSED SHARED STORMWATER MAIN & THEN TO THE EXISTING PUBLIC STORMWATER NETWORK WITHIN LUDLAM CRES. EACH LOT WILL HAVE A 500L ABOVE GROUND TANK OR 2 x AQUACOMB 250L UNITS (DETAILS TBC AT BUILDING CONSENT STAGE) IF REQUIRED BY GWRC FOR HYDROLOGICAL CONTROL. IN ADDITION TO THIS, THERE WILL BE A COMBINED BELOW GROUND DETENTION SYSTEM IN THE ACCESSWAY CONSISTING OF CITREX RAINSMART SW MODULES.
5. EACH LOT WILL HAVE A PROPOSED 100mm uPVC (SN16 OR SN6 AS APPROPRIATE) SEWER LATERAL, WHICH WILL CONNECT TO A PROPOSED 150mm uPVC SN16 SHARED SEWER WHICH CONNECTS TO THE EXISTING PUBLIC SEWER MAIN WITHIN LUDLAM CRES.
6. ABANDONED PIPES, DUCTS & LATERALS ARE SHOWN AS GREY, ALL WORKS TO ABANDON EXISTING WATER SUPPLY, SEWER & STORMWATER LATERALS SHALL COMPLY WITH COUNCIL REQUIREMENTS.
7. TREES 1-8 TO BE RETAINED. TPZ=TREE PROTECTION ZONE, SPZ=STRUCTURAL ROOT ZONE. SEE TREE ASSESSMENT & TREE PROTECTION MANAGEMENT PLAN BY TEND TREE CONSULTANTS LTD.
8. SEE LANDSCAPE PLANS FOR PROPOSED FINAL EXTERNAL SITE BOUNDARY FENCING.

Amalgamation condition: That Lot 13 hereon (legal access) to be held as to 12 undivided shares by the owners of Lots 1-12 hereon as tenants in common in the said shares and that individual records of title be issues in accordance herewith. LINZ reference number xxxxxx.

LEGEND

- EXISTING STORMWATER (CCTV/GIS)
- EXISTING SEWER (CCTV/GIS)
- EXISTING WATER (GIS)
- EXISTING CHORUS (B4UDIG)
- EXISTING ONE NZ (B4UDIG)
- EXISTING POWER (B4UDIG)
- EXISTING GAS (B4UDIG)
- EXISTING MANHOLE
- EXISTING TOBY
- EXISTING SUMP
- EXISTING POWER PILLAR
- EXISTING CHORUS PILLAR
- PROPOSED STORMWATER
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED CHORUS
- PROPOSED ELECTRICITY
- PROPOSED SUMP
- PROPOSED MANHOLE
- PROPOSED TOBY
- PROPOSED VALVE

PART LOT 2
DP 6062
#87 LUDLAM CRESCENT

PART LOT 9
DP 5877
#160 WOBURN ROAD

LOT 2
DP 48214
#81 LUDLAM CRESCENT

LOT 1
DP 48214
#83 LUDLAM CRESCENT

LUDLAM CRESCENT

ACCESS LOT 13
TOTAL AREA 408m2

LOT 12
TOTAL AREA 88m2

LOT 11
TOTAL AREA 63m2

LOT 10
TOTAL AREA 66m2

LOT 9
TOTAL AREA 82m2

LOT 8
TOTAL AREA 97m2

LOT 7
TOTAL AREA 70m2

LOT 6
TOTAL AREA 79m2

LOT 5
TOTAL AREA 97m2

LOT 4
TOTAL AREA 86m2

LOT 3
TOTAL AREA 64m2

LOT 2
TOTAL AREA 70m2

LOT 1
TOTAL AREA 90m2

PR. ELECTRICITY & CHORUS DUCTS. CONNECTIONS WITHIN THE ROAD RESERVE TBC BY THE SERVICE PROVIDERS

PR. COMBINED DETENTION SYSTEM CONSISTING OF 240 DOUBLE UNIT CIRTEX RAINSMART SW MODULES (BASED ON SURFACING WITHIN ACCESS LOT 13 BEING FULLY PERMEABLE)

PR. 1050Ø MANHOLES

RUBBISH BIN STORAGE & COLLECTION FOR LOTS 1-12

EX. VEHICLE CROSSING TO BE WIDENED & MADE HEAVY DUTY FOR THE ACCESSWAY

PR. 150mm uPVC SN16 SHARED PRIVATE SEWER WITH 'Y' JUNCTION CONNECTION TO THE PUBLIC MAIN

PR. 150mm uPVC SN16 SHARED PRIVATE STORMWATER WITH CONNECTION TO EX. PUBLIC MAIN

ABANDON & CAP OFF THE EXISTING SW LATERAL CONNECTING TO THE MAIN

PR. 63mm OD PE100 PN16 SDR11 RIDER MAIN WITH GATE VALVE TO VEST WITH HCC

EX. POWER PILLAR TO BE REMOVED

EX. CHORUS CABINETS AND MANHOLES TO BE RELOCATED

PR. 32mm ID PE100 PN16 SDR11 CONNECTION SUPPLIES JUMBO TOBY WITH 2x20mm ID PRIVATE LATERALS FOR LOTS 3 & 4

PR. 32mm ID PE100 PN16 SDR11 CONNECTION SUPPLIES JUMBO TOBY WITH 2x20mm ID PRIVATE LATERALS FOR LOTS 1 & 2

ABANDON & CAP OFF AT THE MAIN THE EXISTING SITE SEWER LATERAL

ABANDON, CAP OFF & SEAL EXISTING SW LATERAL TO KERB

EX. VEHICLE CROSSING

EX. GAS CONNECTION TO BE DECOMMISSIONED

EX. WATER TOBY & LATERAL CONNECTION TO BE REMOVED & CAPPED OFF AT THE MAIN

PR. CLEANING EYES ON 150mm uPVC SN16 SHARED DRAINAGE LINES

PR. CLEANING EYES ON 150mm uPVC SN16 SHARED DRAINAGE LINES

TREE 9 MAGNOLIA TO BE REMOVED

PR. 600Ø MANHOLES

PR. 1050Ø MANHOLES

PR. RIDER MAIN SCOUR VALVE

EX. DN525 RC SANITARY SEWER MAIN (GIS)

EX. DN300 RC STORMWATER MAIN (GIS)

EX. DN150 AC WATER MAIN (GIS)

KERB AND CHANNEL

CONCRETE FOOTPATH

LL=3.80 IL=NOT OBTAINED

LL=3.54 IL=NOT OBTAINED

OUTDOOR LIVING

TURNING

1.5m SETBACK

1.0m SETBACK

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YOUR LAND DEVELOPMENT CONSULTANTS
0800 TO SURVEY (0800 86 78 78) e-mail: projects@subdivision.net.nz
Cnr. King & Main Streets, PO Box 40083, Upper Hutt
ph: 04 527 9028

LOTS 1-13 BEING A SUBDIVISION OF LOT 1 DP 11523
85 LUDLAM CRESCENT, LOWER HUTT
Prepared for Will Edmonds

SCALE:	1:200 @ A3
CHECKED:	KC 14 JUL 2025
FIELDWORK:	BLS 12 FEB 2025
DRAWN:	JWM 31 JUL 2025

JOB/DRAWING NUMBER: 35176

Sheet 1 of 2

DRAFT

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 Edmonds SCHEME.dwg Thursday, 31 July 2025 11:41:10 am

MEMORANDUM OF PROPOSED EASEMENTS

PURPOSE	SHOWN	BURDENED LAND	BENEFITTED LAND
PARTY WALL	A	LOT 1	LOT 2
	B	LOT 2	LOT 1
	C	LOT 2	LOT 3
	D	LOT 3	LOT 2
	E	LOT 3	LOT 4
	F	LOT 4	LOT 3
	G	LOT 5	LOT 6
	H	LOT 6	LOT 5
	I	LOT 6	LOT 7
	J	LOT 7	LOT 6
	K	LOT 7	LOT 8
	L	LOT 8	LOT 7
	M	LOT 9	LOT 10
	N	LOT 10	LOT 9
	O	LOT 10	LOT 11
	P	LOT 11	LOT 10
	Q	LOT 11	LOT 12
	R	LOT 12	LOT 11
RIGHT TO CONVEY WATER, ELECTRICITY, GAS & TELECOMMUNICATIONS	S, U, V, W, X, Y, Z, AA & AB	LOT 13	LOTS 5-12
	AL	LOT 10	LOT 9
	AM	LOT 11	LOTS 9 & 10
RIGHT TO PARK	T	LOT 13	LOT 4
	U		LOT 1
	V		LOT 5
	W		LOT 6
	X		LOT 7
	Y		LOT 8
	Z		LOT 9
	AA		LOT 10
	AB		LOT 11
	AC		LOT 12

MEMORANDUM OF PROPOSED EASEMENTS

PURPOSE	SHOWN	BURDENED LAND	BENEFITTED LAND
RIGHT TO DRAIN WATER & SEWAGE	S & AC	LOT 13	LOTS 1-12
	AD	LOT 1	LOT 2 & 3
	AE	LOT 2	LOT 1
	AF	LOT 3	LOTS 1, 2 & 4
	AG & AH	LOT 5	LOTS 1-4
	AI	LOT 6	LOTS 1-5
	AJ	LOT 7	LOTS 1-6
	AK	LOT 8	LOTS 1-7
	AX	LOT 12	LOTS 9-11
	AY	LOT 11	LOTS 9 & 10
	AZ	LOT 10	LOT 9
	BA	LOT 9	LOTS 9-12
RIGHT TO DRAIN WATER	AA	LOT 13	LOTS 1-8
	AB	LOT 13	LOTS 1-12
RIGHT TO DRAIN SEWAGE	AS	LOT 13	LOTS 1-12
PEDESTRIAN ROW	AL	LOT 10	LOT 9
	AM	LOT 11	LOTS 9, 10 & 12
	AP	LOT 5	LOTS 1 & 2
	AQ, AG & AR	LOT 5	LOTS 1-3
RIGHT TO OVERHANG & ACCESS FOR MAINTENANCE	AO	LOT 1	LOT 5
RIGHT TO ACCESS FOR MAINTENANCE	AL	LOT 10	LOTS 5-8
	AM	LOT 11	LOTS 5-8
	AT	LOT 9	LOTS 5-8
	AU	LOT 8	LOTS 5-7
	AV	LOT 7	LOTS 5 & 6
	AW	LOT 6	LOT 5
RIGHT TO STORE REFUSE	AS	LOT 13	LOTS 1-12

MEMORANDUM OF PROPOSED EASEMENTS IN GROSS

PURPOSE	SHOWN	BURDENED LAND	GRANTEE
RIGHT TO CONVEY WATER	S, U, V, W, X, Y, Z, AA & AB	LOT 13	HCC
	AL	LOT 10	
	AM	LOT 11	
	AN	LOT 12	
RIGHT TO CONVEY TELECOMMUNICATIONS	S, U, V, W, X, Y, Z, AA & AB	LOT 13	CHORUS
	AL	LOT 10	
	AM	LOT 11	

LOCAL AUTHORITY	HUTT CITY COUNCIL
ZONING	HIGH DENSITY RESIDENTIAL (WITH FLOOD HAZARD OVERLAY)
TOTAL AREA	1359m² (RT AREA)
COMPRISED IN RT	WN464/170
REGISTERED OWNERS	14 MALONE ROAD LTD

SITE COVERAGE

	NET SITE AREA	BUILDING AREA	SITE COVERAGE
LOT 1	90m²	44m²	49%
LOT 2	70m²	44m²	63%
LOT 3	64m²	42m²	66%
LOT 4	86m²	41m²	48%
LOT 5	97m²	55m²	57%
LOT 6	79m²	55m²	70%
LOT 7	70m²	47m²	67%
LOT 8	97m²	47m²	48%
LOT 9	82m²	44m²	54%
LOT 10	66m²	44m²	67%
LOT 11	63m²	43m²	68%
LOT 12	88m²	45m²	51%
LOT 13	408m²	N/A	N/A
AGGREGATE	1360m²	551m²	41%

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DRAFT

THIS PLAN HAS BEEN PREPARED FOR THE PURPOSE OF OBTAINING A RESOURCE CONSENT PURSUANT TO THE PROVISIONS OF THE RESOURCE MANAGEMENT ACT 1991. UNAUTHORISED USE OR COPYING OF THIS PLAN FOR ANY OTHER PURPOSE IS NOT PERMITTED WITHOUT PRIOR CONSENT OF THE SURVEYING COMPANY (WELLINGTON) LIMITED. AREAS AND DIMENSIONS SHOWN ON THIS PLAN ARE SUBJECT TO CONFIRMATION BY FINAL SURVEY. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK. REFER ANY DISCREPANCIES TO THE SURVEYING COMPANY (WELLINGTON) LIMITED.

THE SURVEYING COMPANY
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0800 TO SURVEY (0800 86 78 78) e-mail: projects@subdivision.net.nz
Cnr. King & Main Streets, PO Box 40083, Upper Hutt
ph: 04 527 9028

LOTS 1-13 BEING A SUBDIVISION OF LOT 1 DP 11523
85 LUDLAM CRESCENT, LOWER HUTT
Prepared for Will Edmonds

SCALE:	1:200 @ A3
CHECKED:	KC 14 JUL 2025
FIELDWORK:	BLS 12 FEB 2025
DRAWN:	JWM 31 JUL 2025

JOB/DRAWING NUMBER: 35176

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 Edmonds SCHEME.dwg Thursday, 31 July 2025 11:42:17 am

NOTES:

1. HEIGHTS ARE IN TERMS OF NEW ZEALAND WELLINGTON VERTICAL DATUM 1953.
   ORIGIN OF HEIGHTS IS: PENROSE STREET (BDNG), RL=3.96m, SOURCED: CONVERTED FROM LINZ GEODETIC DATABASE NEW ZEALAND VERTICAL DATUM 2016 HEIGHT OF RL=3.576m, SOURCED DATE: 11 FEB 2025.
   SITE BENCHMARK IS: RM I FB 4553 P29, BRASS PLAQUE UNDER CAST IRON COVER IN FOOTPATH, RL=3.17m
2. "SPOT HEIGHT" POSITIONS ARE SHOWN IN THE FOLLOWING FORMAT x36.24 AND ARE EXPRESSED IN METRES IN TERMS OF THE SITE DATUM FOR THE SURVEY.
   THE HEIGHTS OF THESE POSITIONS HAVE AN ACCURACY RELATIVE TO THE SITE DATUM AS FOLLOWS:
   - HARD SURFACES EG CONCRETE, ASPHALT +/- 0.030m @ 95% CONFIDENCE LEVEL.
   - SOFT SURFACES EG GRASS +/- 0.050m @ 95% CONFIDENCE LEVEL
3. NOT ALL SPOT HEIGHTS HAVE BEEN SHOWN ON THIS PLAN FOR CLARITY.
4. CONTOURS SHOWN ON THIS SURVEY ARE INTERPOLATED FROM SURVEYED "SPOT HEIGHT" POSITIONS. THEREFORE THE LOCATION AND VALUES OF THE CONTOUR MODEL IS DEPENDENT ON THE DENSITY OF THE SURVEYED SPOT HEIGHTS. THIS SURVEY DEPICTS A CONTOUR INTERVAL OF 0.50m WITH AN ACCURACY RELATIVE TO THE HEIGHT DATUM OF +/- 0.25m AT A 95% CONFIDENCE LEVEL.
5. UNLESS SHOWN OTHERWISE, UNDERGROUND SERVICE INFORMATION SHOWN ON THIS PLAN IS DIGITIZED FROM HUTT CITY COUNCIL GIS INFORMATION AND HAS NOT BEEN VERIFIED BY THE SURVEYING COMPANY (WELLINGTON) LTD. THE LOCATION OF UNDERGROUND SERVICES SHOULD BE LOCATED BY THE CONTRACTOR PRIOR TO ANY WORK BEING CARRIED OUT.
6. WHERE INFORMATION SHOWN ON THIS PLAN IS USED FOR SUNLIGHT ACCESS/HEIGHT PLANES WHICH ARE CRITICAL, GROUND LEVELS SHOULD BE CONFIRMED BY ADDITIONAL SURVEY OF THE CRITICAL POINTS ON THE GROUND.
7. ALL SURVEYED TREES SHOWN ON THIS PLAN ARE NIKAU PALMS, SOME NIKAU PALMS MAY NOT HAVE BEEN SURVEYED.

LOCAL AUTHORITY	HUTT CITY COUNCIL
CURRENT ZONING	HIGH DENSITY RESIDENTIAL (WITH FLOOR HAZARD OVERLAY)
TOTAL AREA	1359m² (RT AREA)
COMPRISED IN RT	WN464/170
REGISTERED OWNERS	NEROLE JOCELYN DAVIES

PART LOT 2
DP 6062
#87 LUDLAM CRESCENT

LOT 1
DP 11523
#85 LUDLAM CRESCENT

PART LOT 9
DP 5877
#160 WOBURN ROAD

LOT 2 DP 48214
#81 LUDLAM CRESCENT

LOT 1
DP 48214
#83 LUDLAM CRESCENT

LUDLAM CRESCENT

VEHICLE CROSSING

SITE BENCHMARK
RM I FB 4553 P29
BRASS PLAQUE UNDER CAST
IRON COVER IN FOOTPATH
RL=3.17m

DWELLING
APPROXIMATE GROUND LEVEL FOOTPRINT 179m²
APPROXIMATE UPPER LEVEL FOOTPRINT 113m²

GARAGE
CARPORT
SHED
SEAL DRIVEWAY
FLUSH NIB KERB
KERB AND CHANNEL
CONCRETE FOOTPATH
DOWN PIPE DISCHARGES TO GROUND
SOAK PIT
POWER PILLAR
CHORUS CABINETS AND MANHOLES
VEHICLE CROSSING
SWOUT
LL=3.80 IL=NOT OBTAINED
LL=3.54 IL=NOT OBTAINED

259°27'05" 48.16
5°06'00" 21.45
(58.83) 269°00'10" 22.43
161°45'55" 30.88
36.40

LEGEND:

× 77.80	SPOT HEIGHT	D	DOWN PIPE	G	GAS METER
LL=77.80 (MH)	MANHOLE	SWOUT77.80 ×	STORMWATER OUTLET	T	CHORUS PILLAR
W	TOBY	⊗	VENT		GATE
	SUMP	G	GULLY TRAP		TREE
		P	POWER PILLAR	77.80	FENCE

77.80	EDGE OF SEAL	SS	SEWER MAIN / LATERAL (SCALED HCC GIS)
	BUILDING	-77.80	SEWER MAIN / LATERAL (CCTV)
EA77.80	EAVE	-77.80	STORMWATER MAIN / LATERAL (CCTV)
DK77.80	DECK	W	WATER MAIN / LATERAL (SCALED HCC GIS)
SL77.80	SOFFIT	SW	STORMWATER MAIN / LATERAL (SCALED HCC GIS)

THIS PLAN HAS BEEN PREPARED FOR THE PURPOSE OF SHOWING TOPOGRAPHICAL INFORMATION TO PLOT SCALE ONLY. UNAUTHORISED USE OR COPYING OF THIS PLAN FOR ANY OTHER PURPOSE IS NOT PERMITTED WITHOUT PRIOR CONSENT OF THE SURVEYING COMPANY (WELLINGTON) LIMITED. AREAS AND DIMENSIONS SHOWN ON THIS PLAN ARE SUBJECT TO CONFIRMATION BY FINAL SURVEY. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK. REFER ANY DISCREPANCIES TO THE SURVEYING COMPANY (WELLINGTON) LIMITED.

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YOUR LAND DEVELOPMENT CONSULTANTS
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Cnr. King & Main Streets, PO Box 40063, Upper Hutt
ph: 04 527 9028

TOPOGRAPHICAL SURVEY OF 85 LUDLAM CRESCENT, LOWER HUTT PREPARED FOR WILL EDMONDS

SCALE: 1:200 @ A3
CHECKED:
FIELDWORK: BLS 12 FEB 2025
DRAWN: BLS 13 FEB 2025

JOB/DRAWING NUMBER
35176

Sheet 1 of 1

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 EDMONDS TOPO.dwg Tuesday, 18 February 2025 8:01:40 am

LANDSCAPE DESIGN

85 LUDLAM CRESCENT, LOWER HUTT

PREPARED FOR WILL EDMONDS

AUGUST 1 2025

URBANEDGE PLANNING LTD

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URBANEDGE
PLANNING LTD

TABLE OF CONTENTS

TREE RETENTION PLAN	L002
SURFACES AND PLANTING PLAN	L003
FENCING AND ITEMS PLAN	L004
LANDSCAPED AREAS PLAN	L005
PERMEABLE SURFACES PLAN	L006
SITE ANALYSIS	L007
PLANTING SCHEDULE	L011
BOUNDARY TREATMENT DETAILS	L013
SURFACE TREATMENT DETAILS	L014
ITEM DETAILS	L015
LANDSCAPING SPECIFICATION	L016

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VISION STATEMENT

This landscape plan intends to integrate the proposed dwellings comfortably within the site and surrounding neighborhood and enhance the landscape at 85 Ludlam Crescent, Woburn. There are several existing established trees around the site, including seven palms, primarily Nikau Palms, that will be retained. An arborist has been consulted as part of the resource consent application, and a tree retention plan on sheet L002 has been developed in coordination with the advice provided in the Tree Assessment and Protection plan (TPMP) from Tend Tree Consultants Ltd, including Tree Protection Zones (TPZ). It is advised that Tend Tree Consultants Ltd, or other qualified arborists, remain engaged at detailed design to advice on root protection and trimming as part of the building foundation design and throughout construction.

The site is located in the suburb of Woburn, 1km from Central Hutt, approximately 300m from the nearest bus stops in each direction, and only 550m from the nearest train station. The proximity of 85 Ludlam Crescent to public transport and local amenities makes it an ideal site for residential intensification.

The proposal includes the addition of ten, two-bedroom, two-storey, dwellings and two, three-bedroom, two storey dwellings to a site with an existing standalone dwelling. These twelve dwellings will be in an attached townhouse configuration, arranged in three blocks of four.

The front boundary along Ludlam Crescent will not be fenced, and the four street facing dwellings include kitchen windows that provide a better connection to, and passive surveillance over, the street. Proposed planting between the front facades and the public footpath will aid in maintaining internal privacy.

The landscaping of outdoor spaces has been planned from an early design stage and specifies planting to soften hard surfacing along fences and proposes private patios for residents. The landscaping has been designed to connect the development with the street and provide clearly defined accessways to individual dwellings.

TREE RETENTION PLAN

**Existing trees to be retained or transplanted are to be protected throughout the construction process. Only trim trees for retention to the extent identified. All works within TPZ to be discussed with the project arborist prior to commencement and undertaken under their oversight. The size of trees to be retained shown is indicative only, and is based on the Structural Root Zone (SRZ) identified in the arborists drawings.*



Existing vegetation to be cleared, avoid damage to adjacent trees for retention

Tree numbering as assessed in Arboricultural Report*

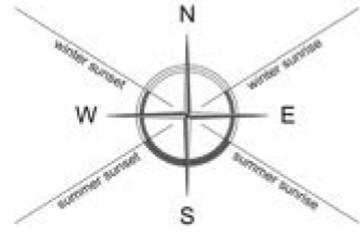
Existing palm trees to retain if possible (Size based on SRZ - Structural Root Zone*)

TPZ for trees to be retained (Tree Protection Zone*), Geo-Cellular Surface Support System to extents.

Indicative extent of trimming to canopy required of trees to be retained

Proposed permeable surfaces extents (Refer to Sheet L003 for typologies)

If possible, proposed feature trees to be transplanted nikaus from locations on the site where existing trees cannot be retained, or otherwise replaced with species listed.



Project Number: 24315 Drawing Name: Tree Retention Plan Sheet Number: L002	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	N Scale: 1:200

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SURFACES AND PLANTING PLAN



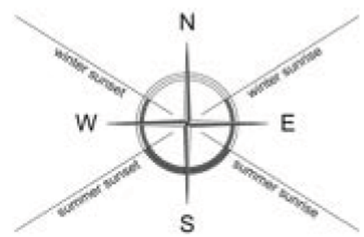
- A1 Surface A1 - Pemeable concrete, colour 1
- A2 Surface A2 - Pemeable concrete, colour 2
- B Surface B - Feature paving
- C Surface C - Loose pavers in groundcovers
- D1 Surface D1 - Permeable pavers, colour 1
- D2 Surface D2 - Permeable pavers, colour 2
- E Surface E - Low timber deck/stairs

- 1 Plant mix 1 - Small shrubs - sun
- 2 Plant mix 2 - Small shrubs - shade
- 3 Plant mix 3 - Mid shrubs
- 4 Plant mix 4 - Hedging
- 5 Plant mix 5 - Groundcovers

Existing palm trees (to retain)

Small trees

Feature trees/transplanted nikau palm from on site.



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Project Number: 24315 Drawing Name: Surfaces and Planting Plan Sheet Number: L003	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	N Scale: 1:200 URBANEDGE PLANNING LTD

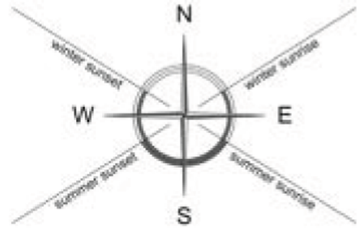
FENCING AND ITEMS PLAN



XF Existing fence - 1.8m closeboard
F1 Fence 1 - 1.8m closeboard
F2 Fence 2 - 1.4m slat (30-50% visibility)
F3 Fence 3 - 1.4m slat (20-30% visibility)
F4 Fence 4 - 1.4m high feature wall
G Gate 1 - Single width pedestrian gate to match adjoining fence height
GG Gate 2 - 1.2m H, double gate bin store

Unit number
Letterbox
Sensor security light
Bollard light
Wheel stop
Refuse bin, shared storage

Clothesline
Vertical bicycle storage hook
Space for bicycle storage
Pergola, refer to architects details



Project Number: 24315 Drawing Name: Fencing and Items Plan Sheet Number: L004	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	N Scale: 1:200 URBANEDGE PLANNING LTD

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LANDSCAPE AREAS PLAN



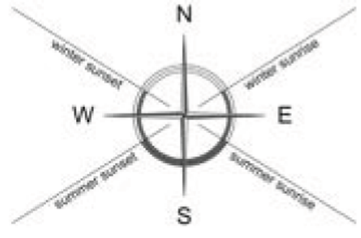
Landscaped area

	Area	Landscaped area	Percentage
Site	1,359m²	221m² *	16% *

**Includes 37m² of existing tree canopy to be retained - extent based on LINZ aerial imagery- that will overhang proposed hardstand areas (approximately 3% of the total site area)*

Lot/Unit	Area	Landscaped area	Percentage
1	90m²	25m²	28%
2	70m²	8m²	11%
3	64m²	9m²	14%
4	86m²	37m²	43%
5	97m²	7m²	7%
6	79m²	2m²	3%
7	70m²	2m²	3%

Lot/Unit	Area	Landscaped area	Percentage
8	97m²	26m²	27%
9	82m²	15m²	18%
10	66m²	12m²	18%
11	63m²	9m²	14%
12	88m²	25m²	28%
13 (ROW)	408m²	45m²	11%



Project Number: 24315
Drawing Name: Landscaped Areas Plan
Sheet Number: L005

Client: Will Edmonds
Project Name: 85 Ludlam Crescent, Lower Hutt
Designer: Eve McLachlan- Urban Edge Planning

Status: For Comment
Stage: Resource Consent
Issue Date: 01/08/2025

N Scale: 1:200

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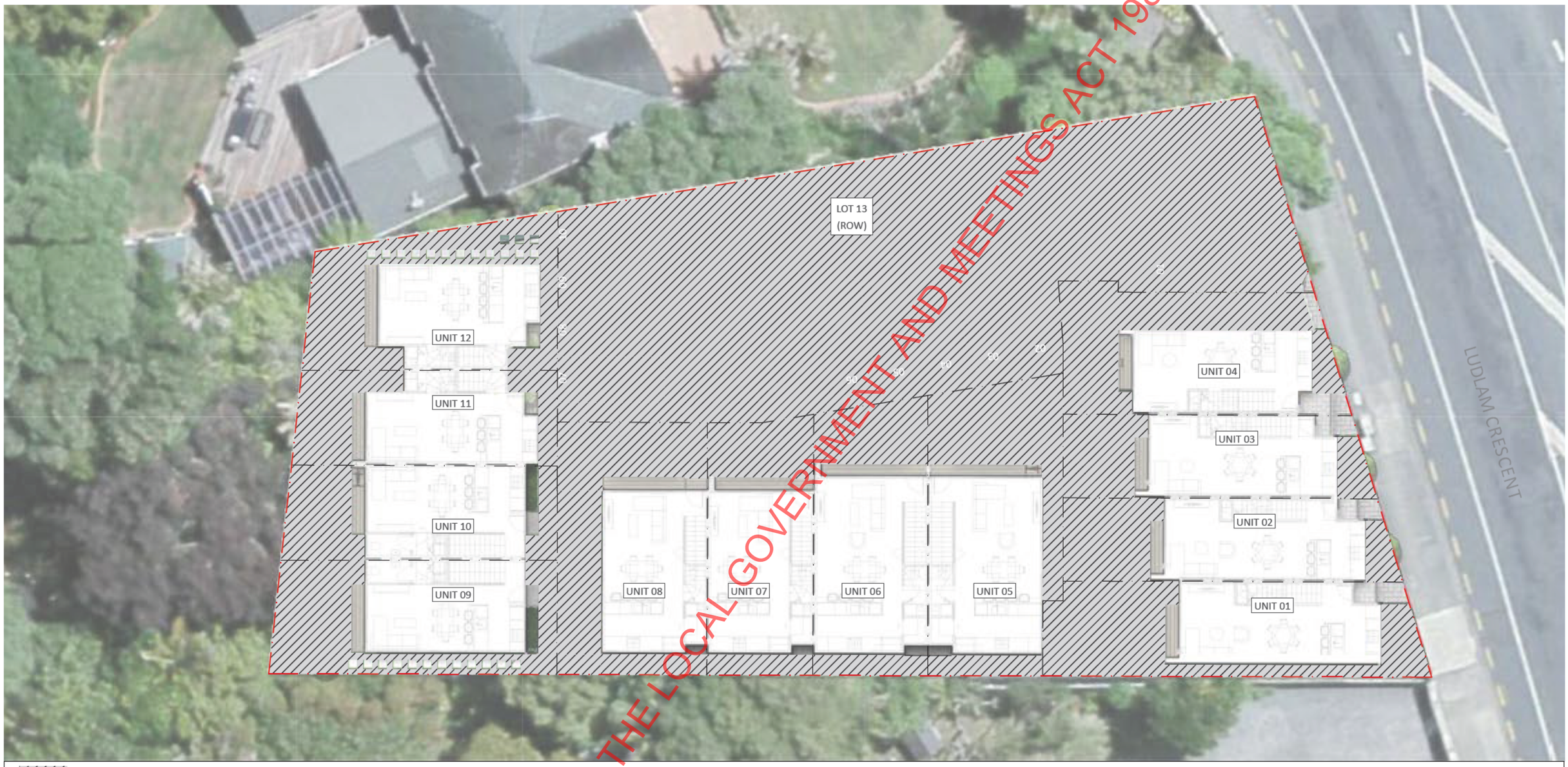
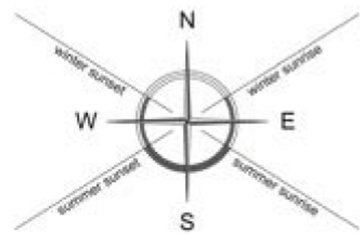
PERMEABLE SURFACES PLAN



	Permeable surfaces		
	Area	Permeable area	Percentage
Site	1,359m²	780m²	57%

Lot/Unit	Area	Permeable area	Percentage
1	90m²	42m²	47%
2	70m²	24m²	34%
3	64m²	21m²	33%
4	86m²	25m²	29%
5	97m²	40m²	41%
6	79m²	23m²	29%
7	70m²	21m²	30%
8	97m²	49m²	51%
9	82m²	35m²	43%
10	66m²	22m²	33%
11	63m²	22m²	35%
12	88m²	40m²	45%
ROW	408m²	408m²	100%



Project Number: 24315
Drawing Name: Permeable Surfaces Plan
Sheet Number: L006

Client: Will Edmonds
Project Name: 85 Ludlam Crescent, Lower Hutt
Designer: Eve McLachlan- Urban Edge Planning

Status: For Comment
Stage: Resource Consent
Issue Date: 01/08/2025

N Scale: 1:200

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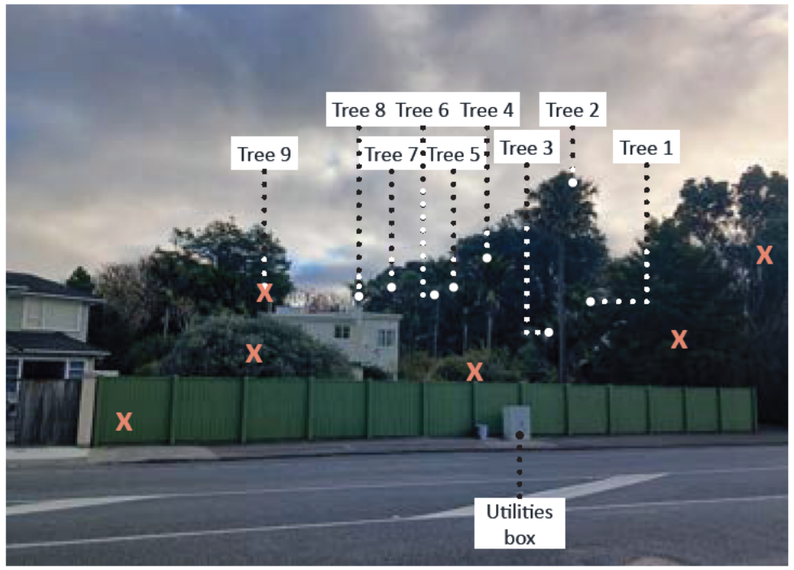
SITE ANALYSIS



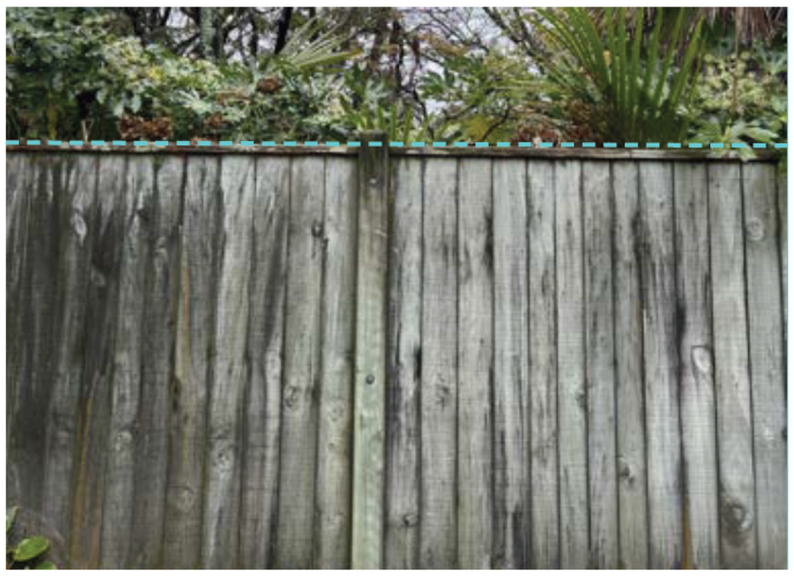
Existing front boundary fence to be removed to allow construction of the front block of proposed dwellings. Existing dwelling to be removed. Existing trees 1-8 to be retained and protected throughout construction, all other vegetation to be removed or transplanted on site. Existing services to be retained and protected throughout construction.



Existing south boundary fence to be removed and replaced with Fence type 1 - closeboard 1.8mH.



Portion of existing south boundary fence to be removed and replaced with Fence type 1 - closeboard 1.8mH to left, portion to be retained, power washed and painted or stained to client preference, right.



Existing west boundary fence to be retained, power washed and painted or stained to client preference, right.



Existing north boundary fence to be removed and replaced to align with correct boundary. Trees behind fence that are within the site boundaries will require removal.



Existing Nikaus, 1, 2, 3, and 4 to be retained, visible from the street frontage. Existing Pohutukawa and Rimu at the street front to be removed.

**Existing trees to be retained are to be protected throughout the construction process, with a Tree Protection Zone (TPZ) defined by a qualified arborist prior to works commencing, with guidance on proposed building offsets and footing typologies to limit damage to tree roots where in close proximity.*

Project Number: 24315 Drawing Name: Site Analysis Sheet Number: L007	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

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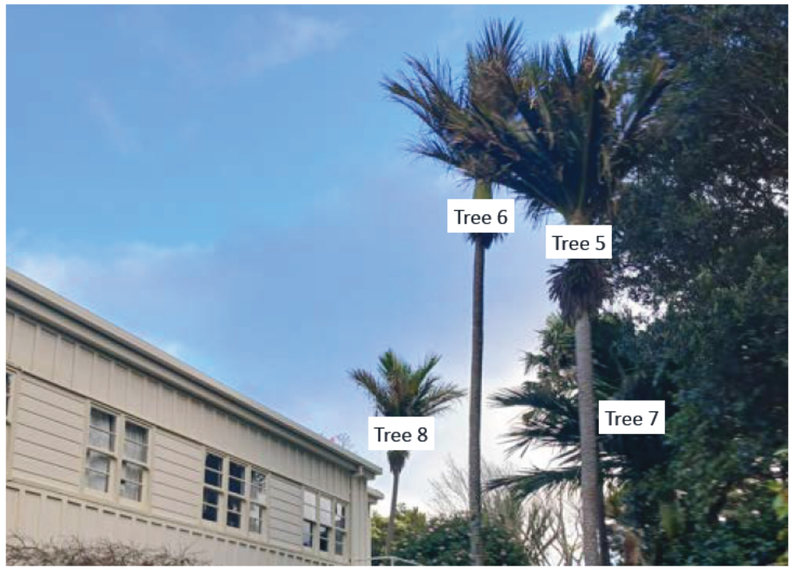
SITE ANALYSIS



Existing trees, 5, and 6 to be retained, adjacent the proposed turning bay, existing tree 8 to be retained between proposed Units 8 and 10 and existing tree 7 to be retained between proposed Units 11 and 12.



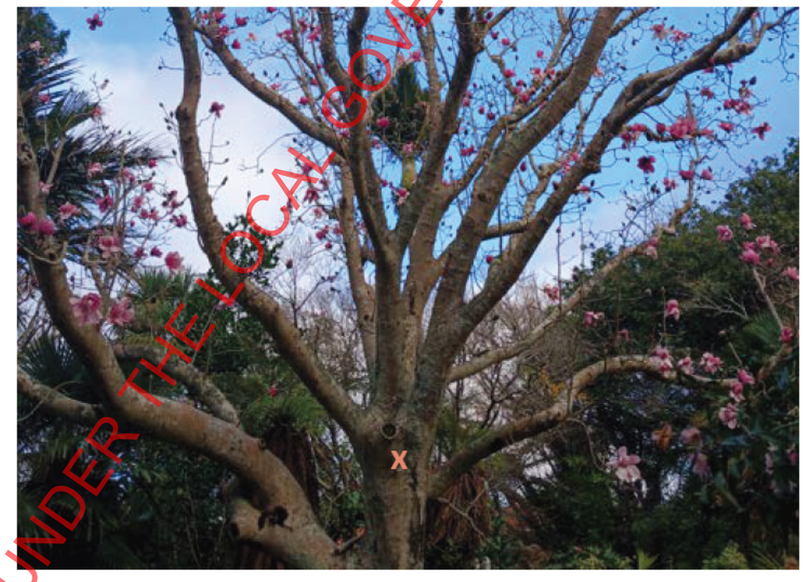
Existing trees, 1-8, visible from the street front, to be retained and protected throughout construction process.



Existing tree 7 to far right to be retained between proposed Units 11 and 12, all other trees in image to be removed.



Existing Nikau 8 to be retained between proposed Units 8 and 10.



Existing tree 9, magnolia tree to be removed and replaced with a feature tree species, if possible with an existing palm transplanted from within the site.



Nikau within proposed driveway area to be removed, along with tree ferns and all other vegetation in this area.

**Existing trees to be retained are to be protected throughout the construction process, with a Tree Protection Zone (TPZ) defined by a qualified arborist prior to works commencing, with guidance on proposed building offsets and footing typologies to limit damage to tree roots where in close proximity.*

Project Number: 24315 Drawing Name: Site Analysis Sheet Number: L008	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

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PLANTING PALETTE

SHADED LOW MIX (<0.8M)



Cremanthodium reniforme
tractor seat



Dianella nigra
tūrutu/inkberry



Fuchsia procumbens
creeping fuchsia



Liriope muscari 'Monroe White'
monroe white lilyturf

SUNNY LOW MIX (<0.8M)



Carex 'Feather Falls'
variegated sedge



Lavendula angustifolia 'Thumbelina Leigh'
dwarf English lavender



Lobelia angulata
pānakenake/lawn lobelia



Veronica 'Emerald Gem'
hebe emerald gem

MEDIUM SHRUBS (0.8-1.4M)



Arthropodium cirratum
rengarenga



Blechnum novae-zealandii
kiokio



Choisya ternata
Mexican orange blossom



Dietes grandiflora
fairy iris



Gardenia radicans
trailling gardenia



Hydrangea macrophylla 'Snowball'
snowball hydrangea



Pittosporum tenuifolium 'Little Kiwi'
dwarf pittosporum



Veronica 'Wiri Mist'
hebe 'Wiri Mist'

HEDGING - SCREENING (>1.2M)



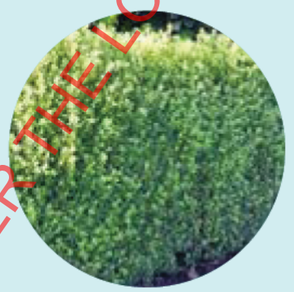
Acca sellowiana
feijoa



Corokia buddleioides
korokio taranga



Corokia 'Geenty's Green'
green corokia



Pittosporum tenuifolium 'Mountain Green'
NZ pittosporum

GROUND COVERS



Fuchsia procumbens
creeping fuchsia



Lobelia angulata
pānakenake/lawn lobelia



Thymus serpyllum
creeping thyme

Project Number: 24315 Drawing Name: Planting Palette Sheet Number: L009	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

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PLANTING PALETTE

SMALL TREES



Acer palmatum
Japanese maple



Amelanchier canadensis
Canadian serviceberry



Magnolia laevifolia
port wine magnolia



Pyrus salicifolia 'Pendula'
weeping silver pear

FEATURE TREES



Hoheria populnea
houhi/lacebark



Plagianthus regius
manatu/ribbonwood



Rhopalostylis sapida 'Chathamica'
Chatham Island nikau



Sophora microphylla
kōwhai

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Project Number: 24315 Drawing Name: Planting Palette Sheet Number: L010	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

PLANTING SCHEDULE

Botanical name	Common name	Mature height (m)	Spacing (m)	Grade (min L)	Notes
SHADED LOW MIX					*Plant individually or in groups of three*
Cremanthodium reniforme syn. *Ligularia reniforme*	tractor seat	0.6	0.8	3	Open rounded shrub. Suited to moist soils. Position in full or partial shade. Winter dormant. Medium growth rate.
Dianella nigra	tūrutu/inkberry	0.5	0.5	2	Small cascading grass. Prefers moist shade, tolerant of dry and sun. Suited to full sun or full shade. Hardy, native. Medium growth rate.
Fuchsia procumbens	creeping fuchsia	0.2	1.5	2	Spreading groundcover. Suited to dry or moist soil. Tolerates full sun and full shade, prefers partial shade. Hardy, native. Medium growth rate. Lawn replacement.
Liriope muscari 'Monroe White'	monroe white lilyturf	0.4	0.4	2	Small cascading grass like plant. Tolerates full sun to full shade positions and suited to most soil types. Extremely hardy. White flowers summer-autumn.
SUNNY LOW MIX					*Plant individually or in groups of three*
Carex 'Feather Falls'	variegated sedge	0.5	0.5	2	Small cascading grass. Tolerates dry periods, coastal conditions, cooler climates and frost. Hardy, native. Position in sun. Fast growing.
Lavandula angustifolia 'Thumbelina Leigh'	dwarf lavender	0.3	0.3	2	A compact lavender, tidy in appearance. Suited to well drained soils. Tolerates frost, wind, and dry spells. Position in full sun. Hardy. Medium-fast growth rate. Evergreen perennial shrub.
Lobelia angulata	pānakenake/lawn lobelia	0.2	1.0	2	Spreading groundcover. Prefers damp, shaded sites, tolerates sun. Hardy, native. Medium growth rate. Can be used as a lawn replacement.
Veronica 'Emerald Gem'	hebe emerald gem	0.5	0.5	2	Compact, rounded shrub. Suited to most soils but prefers well drained soil. Position in full sun or partial shade. Hardy, native. Medium growth rate.
MEDIUM SHRUBS					*Plant individually or in groups of three*
Arthropodium cirratum	rengarenga	1.0	1.0	3	Cascading strappy leaved plant. Suited to dry or moist soils. Prefers full sun or partial shade, tolerant of full shade, coastal conditions and some frost. Hardy, native. Fast growing.
Blechnum novae-zealandii	kiokio	1.2	1.2	3	Spreading fern, useful as revegetation species. Position in moist soils in full or partial shade. Native. Medium growth rate.
Choisya ternata	Mexican orange blossom	1.5	1.5	3	Large bushy shrub. Suited to well drained, rich soils. Tolerates moderate frost, wind and coastal conditions. Position in full sun or part shade. Hardy. Medium growth rate. Evergreen.
Dietes grandiflora	fairy iris	1.2	0.9	3	Cascading grass-like perennial plant. Summer flowers. Suited to dry or moist soils. Position in full sun or partial shade. Hardy. Medium growth rate.
Gardenia radicans	trailing gardenia	0.4	0.7	2	Spreading low plant. Suited to freegraining soils. Toerates light frosts. Position in full sun or part shade. Medium growth rate. Evergreen.
Hydrangea macrophylla 'Snowball'	snowball hydrangea	1.0	0.7	3	Medium shrub with mopheads of white flowers. Suited to rich, well draining soils. Tolerates light to moderate frost and wind. Position in full sun or part shade. Fast growing. Deciduous.
Pittosporum tenuifolium 'Little Kiwi'	dwarf pittosporum	1.0	1.0	3	Rounded, compact shrub. Suited to dry or moist soils. Position in full sun or partial shade. Tolerates dry spells, and moderate frost. Hardy, native. Medium growth rate.
Veronica 'Wiri Mist'	hebe 'Wiri Mist'	1.0	1.0	3	Dense, rounded shrub. Suited to dry or moist soil. Position in full sun or partial shade. Hardy, native. Spring and summer flowering. Medium growth rate.
HEDGING					*Plant individually or in groups of three*
Acca sellowiana	feijoa	3.0	1.0	10	Dense shrub/tree with edible fruits. Keep hedges trimmed. Suited to dry or moist soil. Position in full sun or partial shade. Tolerant of wind, frost and coastal conditions. Hardy. Medium growth rate.
Corokia buddleioides	korokio taranga	2.0	1.0	10	Slender shrub. Keep hedges trimmed. Suited to moist and dry soils. Tolerates coastal conditions and mild frost. Position in full sun, partial shade or full shade. Hardy, native. Medium growth rate.
Corokia 'Geenty's Green'	green corokia	2.0	0.5	10	Dense, bushy shrub. Keep hedges trimmed. Suited to most soil types. Tolerates coastal conditions, wind, drought and frost. Position in full sun or partial shade. Hardy, native. Medium growth rate.
Pittosporum tenuifolium 'Mountain Green'	NZ pittosporum	4.0	1.0	10	Dense shrub. Keep hedges trimmed. Suited to dry or moist (not wet) soil. Tolerates wind, coastal conditions, dry spells and frost. Position in full sun or partial shade. Hardy, native. Medium growth.
GROUND COVERS					
Fuchsia procumbens	creeping fuchsia	0.2	1.5	2	Spreading groundcover. Suited to dry or moist soil. Tolerates full sun and full shade, prefers partial shade. Hardy, native. Medium growth rate. Lawn replacement.
Lobelia angulata	pānakenake/lawn lobelia	0.2	1.0	2	Spreading groundcover. Prefers damp, shaded sites, tolerates sun. Hardy, native. Medium growth rate. Can be used as a lawn replacement.
Thymus serpyllum	creeping thyme	0.1	0.3	2	Spreading/cascading groundcover. Suited to dry or free draining soil. Coastal, frost and drought tolerant. Position in full sun. Hardy, edible herb. Medium growth rate. Lawn replacement.

Planting schedule generated based on availability at date of issue; species and grades may vary depending on availability. Project landscape architect to approve any substitutes. Minimum of five shrub species per mix and three tree species per type from the above list to be used, use only one hedge species per bed planted in a single row and keep trimmed to maintain shape. All species to be planted a minimum distance that equates to their spacing distance from the edge of the planter to avoid trip hazards. Plant grade shown is minimum required, larger grades are considered acceptable. Do not plant species that will exceed 1m in height within vehicle sightlines, and keep trees clear-stemmed to 2m where positioned adjacent vehicle sightlines.

Project Number: 24315 Drawing Name: Planting Schedule Sheet Number: L011	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

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PLANTING SCHEDULE

Botanical name	Common name	Mature height (m)	Spacing (m)	Grade (min L)	Notes
SMALL TREES (3-6M)					
Acer palmatum	Japanese maple	6.0	4.0	35	Rounded head, trim to shape. Prefers moist soils. Needs to be sheltered from wind. Tolerates frost. Position in full sun or partial shade. Slow growing. Deciduous.
Amelanchier canadensis	Canadian serviceberry	6.0	4.0	35	Small tree, becomes shrubby if not trimmed. Suited to most moist, well drained soil types, prefers acidic. Tolerates frost, wind and dry spells. Position in full sun or part shade. Medium growth rate. Deciduous.
Magnolia laevifolia	port wine magnolia	3.0	2.0	25	A sturdy, dense, small tree with a more pyramidal than spreading shape. Suited to well drained soil. Tolerates moderate frost, and wind. Position in full sun or part shade. Medium growth rate. Evergreen.
Pyrus salicifolia 'Pendula'	weeping silver pear	3.0	3.0	35	Weeping head, trim to shape. Suited to dry or moist soils. Tolerates frost, coastal condition, wind and mild drought. Position in full sun or partial shade. Hardy. Medium growth rate. Deciduous.
FEATURE TREES					
Hoheria populnea	houhi/lacebark	8.0	3.0	35	Erect with an oval head. Suited to dry or moist soils. Tolerates dry spells, coastal conditions, frost and some wind. Position in full sun or partial shade. Fast growing. Hardy. Native. Evergreen.
Plagianthus regius	manatu/ribbonwood	12.0	4.0	35	Erect, spready tree. Suited to most soils types. Tolerates wet feet, wind, coastal conditions, dry spells and frost. Position in full sun or partial shade. Hardy. Native. Fast growing. Semi-deciduous.
Rhopalostylis sapida 'Chathamica'	Chatham Island nikau	10.0	2.0	25	Palm, with a clear stemmed. Suited to well drained, moist soils. Tolerates wind once mature, and moderate frosts, prefers some shelter Position in full to part shade. Native. Slow growing. Evergreen.
Sophora microphylla	kōwhai	8.0	4.0	35	Erect with a rounded head. Suited to dry or moist soils. Tolerates coastal conditions, frost and wind. Position in full sun, partial shade or full shade. Hardy. Native. Medium growth rate. Semi-deciduous.

Planting schedule generated based on availability at date of issue; species and grades may vary depending on availability. Project landscape architect to approve any substitutes. Minimum of five shrub species per mix and three tree species per type from the above list to be used, use only one hedge species per bed planted in a single row and keep trimmed to maintain shape. All species to be planted a minimum distance that equates to their spacing distance from the edge of the planter to avoid trip hazards. Plant grade shown is minimum required, larger grades are considered acceptable. Do not plant species that will exceed 1m in height within vehicle sightlines, and keep trees clear-stemmed to 2m where positioned adjacent vehicle sightlines.

Project Number: 24315 Drawing Name: Planting Schedule Sheet Number: L012	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

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BOUNDARY TREATMENT DETAILS



XF Existing fence - 1.8m closeboard. Power-wash and paint or stain to client preference.



F1 Fence 1 - 1.8m closeboard fence, 1.8m height, no gaps between palings. Colour to client preference. (Inset shows indicative transition panel between 1.8m and 1.4m height fence typologies.



F2 Fence 2 - 1.4m slat. 1.4m height fence with 50-70mm slats and 30-50mm gaps between for 50-30% visibility. Colour to client preference.



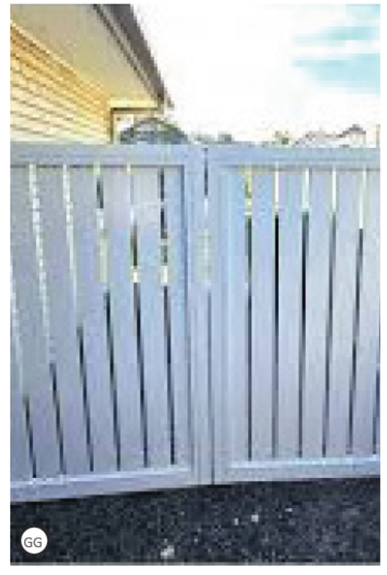
F3 Fence 3 - 1.4m slat. 70-80mm slats with 20-30mm gaps between for 20-30% visibility. Colour to client preference.



F4 Fence 4 - 1.4m tall solid wall, bespoke light coloured rock masonry. Exact product to client preference.



G Gate 1 - Single width pedestrian gate to match adjoining fence height Lockable.



GG Gate 2 - 1.2m H, double gate for bin storage.To match adjoining fence height

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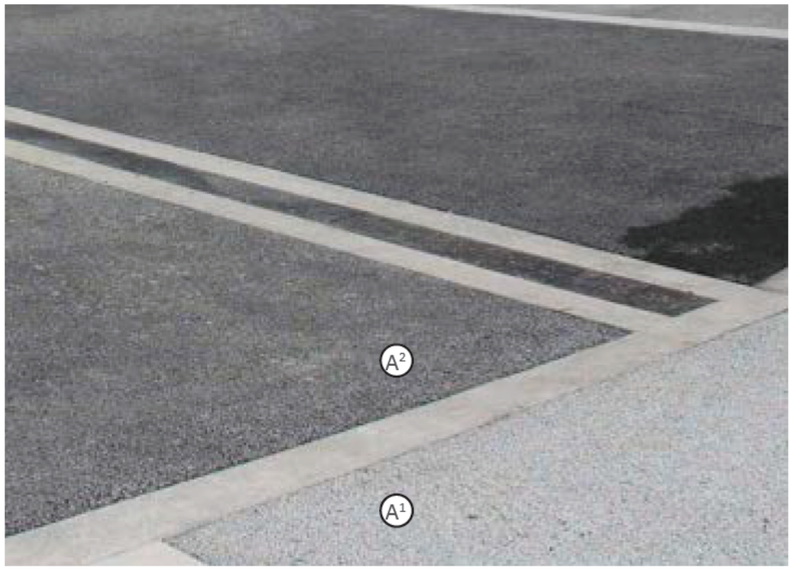
Project Number: 24315 Drawing Name: Boundary Treatment Details Sheet Number: L013	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

SURFACE TREATMENT DETAILS



A1 A2 Surface A - Permeable concrete. 'Permeable Concrete NZ' vehicle strength (or similar vehicle strength permeable concrete)
Colour A1 - Light, suggested - Cappuccino
Colour A2 - Dark, suggested - Black Velvet



B Surface B - Feature paving. Light stone 'Crazy' pavers. Exact product to client preference.



C Surface C - Loose pavers in groundcovers (mix 5). Pavers - Firth Chancery® 50 Pavers (500x500x50mm). Colour: Volcanic Ash



D1 D2 Surface D1 - Permeable pavers colour 1. Firth, Holland® Flowpave pavers, vehicle strength. Colour: Natural. (For use within existing tree driplines)*
Surface D2 - Permeable pavers colour 2. Firth, Holland® Flowpave pavers, vehicle strength. Colour: Black Sands (For use within existing tree driplines)*
Used to define carparks and form a rumble strip at site entrance.



E Surface E - Low timber deck/stairs, to architects details.

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Project Number: 24315 Drawing Name: Surface Treatment Details Sheet Number: L014	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

ITEM DETAILS

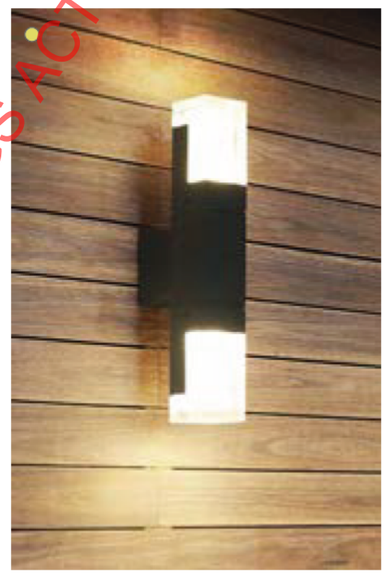


Unit number - Large numerals affixed to the front door or wall of each unit to assist with address identification and way finding.





Letterbox - For Units 1-4, free standing letterboxes in white with large numerals, located at entrance paths. For Units 5-12, grouped at driveway entrance in two rows of four, letterboxes to be set in stone feature wall (fence type F4).



Sensor security light - Waterproof LED motion sensor security light for safety and assisted wayfinding at night. Indicative locations only, subject to lighting design.



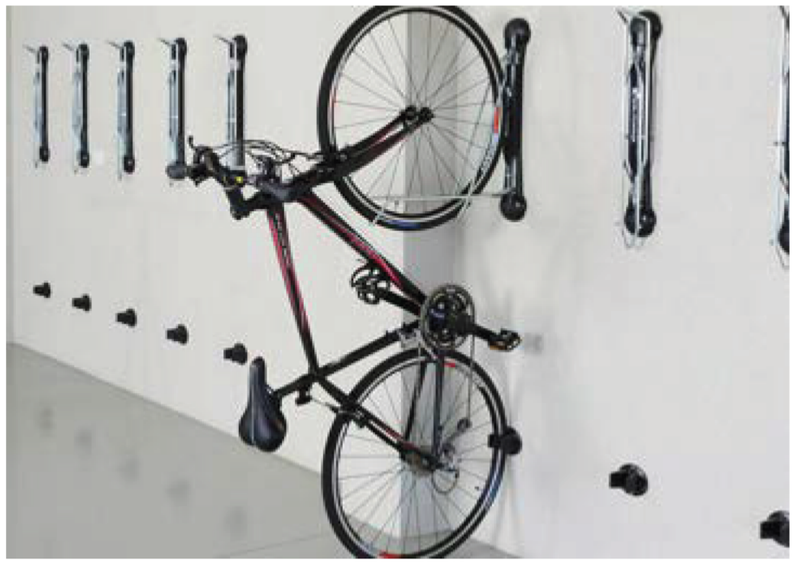
Bollard light - Waterproof, fixed bollard light for safety and assisted wayfinding at night. Indicative locations only, subject to lighting design.



Clothesline - Fence-mounted, fold-down clothesline. Dimensions:



Refuse storage area, fenced with Fence type 3 and double gates.



Vertical bicycle mounts. - Units 2, 3, 5-8, 9 and 10.

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Project Number: 24315 Drawing Name: Item Details Sheet Number: L015	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

LANDSCAPING SPECIFICATION

GENERAL:

- Planting operations shall be carried out between April and August.
- Plant all vegetation as soon as practicably possible from the date of delivery (no later than 3 days after delivery) and ensure the rootball is kept moist.
- Ensure the site is cleared of all debris and construction is complete before planting proceeds.
- Confirm the location of any buried services and cabling prior to digging and maintain the required cover over these services
- On completion clean the area of works; remove all surplus soil, unused materials and plants from the site.
- Ensure all vegetation provided is free from pests and diseases, is true to name as specified on the landscape plans and are minimum PB5 for shrubs and minimum PB40 for specimen trees.
- Plants must be grown under soil and climatic conditions that are not substantially different from that of the site
- All plants that are root bound or those with spiraled root systems must be rejected and replaced.
- All good quality native vegetation to be retained or relocated where possible, confirm with landscape architect on site.
- All proposed finished landscaping levels to conform to NZS 3604, Section 6.14; *Prevention of dampness*, and Section 7.5.2; *Finished floor levels and foundation edge construction*, in relation to any adjoining habitable floor levels.
- All proposed native plants to be ecosourced to the local ecological district where possible.
- Species range may alter based on availability and site constraints, at landscape architect's discretion.

PREPARING THE SITE:

- Replace substandard soil with 200mm layer of plant mix, place in 100mm layers, lightly compacted by heeling or rolling. The soil should be slightly mounded in the centre of the bed.
- Manually clear the site of all weeds, debris, grass and vegetation before commencing planting, with exception to any areas that will be retained with existing vegetation, as per the landscape plans.

LAYOUT AND SITING:

- Position plants in the correct positions with the correct spacing as specified in the planting schedule and/or the landscape plans. Confirm layout and spacing with landscape architect or site engineer prior to commencing planting.
- Avoid undue compaction of soil in the planting areas by other plant on site and recultivate any heavily compacted areas prior to planting.
- If any buried services or concrete footing are discovered while planting that restrict the accurate placement of plants, notify the site engineer for further instruction.

PLANTING:

- Use 300mm (minimum 150mm) depth topsoil, that is free of any foreign matter including pernicious weeds, straw, stones, sticks and clay lumps; solid matter should not exceed 25mm dimension. Ph value 6.5 to 7.5 with a humus content greater than 50%. The topsoil should be a good quality loam of a workable consistency
- The plant mix should contain a thoroughly mixed medium of 60% compost, and 40% bark, pumice and fertilizer by volume.
- Use slow release, non-burning, complete NPK (nitrogen, phosphorus, potassium) ratio 5:5:5:4.1, with added micronutrients including iron, sulfur and magnesium. Add gypsum, blood and bone and potash where required dependent on soil composition and/or plant type.
- Excavate planting holes to twice the diameter and one and a half times the depth of the rootball. Backfill with minimum 400mm Living Earth garden mix or equal approved in evenly consolidated 150mm layers (not compacted) Where depth exceeds the depth of the topsoil, continue down to subsoil up to 150mm; breaking it up and adding in peat.
- Scarify the sides of the holes, especially when digging into clay soils.
- Provide adequate drainage beneath planting, if existing soils are not adequately pervious include 65mm diameter Novacoil to 1.0m length.
- Place plant mix to support the rootball, ensuring the rootball is fully covered in soil, and the base of the plant sits flush with the surrounding ground level. Place the plant so that the healthiest side is facing the prevailing wind.
- Use rod or fingers to evenly firm without compaction to a level that will allow the plant to sit flush with the surrounding ground level, and firm each plant in place by heeling.

LAWN:

- Turf - Thoroughly cultivate the are a to be turfed to a depth of 100-150mm and roughly level. Consolidate by heeling and rake to required levels, finishing 12mm below kerbs and paths. Add re-plant, slow release, non-burning, complete NPK (nitrogen/phosphorus/potassium) - ratio of 20:11:10 with added micro-nutrients iron, sulfur and magnesium fertiliser, raking it in to the top 30-50mm and bring it to a smooth. Level surface and leave to settle for a day and moisten if dry. Use blended local and imported lawn grasses in selected netted topsoil, to finish as a deep, green, weed-free, uniform, close density lawn turf in 1.0m2 rolls. Place turf mats across the slope in straight lines, tightly butted, with joints staggered, and to correct levels. Cut around trees, buildings and borders with a sharp knife. Lightly roll and deep water immediately after laying. Deep water late every day for 3 weeks and continue weekly until the end of the contract.
- Sowing grass - Replace unsatisfactory soil with 150mm layer of topsoil. Rotary hoe in two directions to a depth of 150mm. Rake to a fine tilth, level and smooth with run-off to drainage outlets. Spread pre-plant, slow release, non-burning, complete NPK (nitrogen/phosphorus/potassium) - ratio of 20:11:10 with added micro-nutrients iron, sulfur and magnesium fertiliser at the required rate for lawn. Use a certified mixture of grass seed to suit local site conditions, with a high germination rate, fungicide and bird-repellent treated. Proposed mixture and area of use to be approved by landscape architect on site. Spread grass seed at half the required rate in two directions at right angles, using a pre-approved spreader. Lightly rake in and roll. Water deeply and keep moist without any run-off of water until germination is complete. Continue watering as necessary until the end of the contract. Remove any weeds that establish within the lawn throughout the germination process. First cut only when growth is a minimum of 100mm and only down to 50mm.

AFTER CARE:

- Water in immediately after planting, to saturation level in surrounding soil and thoroughly wet all foliage.
- Apply 100mm (min. 75mm consolidated) depth Living Earth mulch or equal approved. Ensure mulch kept back from trunk to avoid collar rot. Mulch should be course grade, granulated bark with a particle size up to 50mm with no more than 25 percent smaller than 6mm. Mulch to be free from disease, dust, wood slivers and other foreign matter. Alternatively, use a biodegradable weed suppressing mat or woven construction stabilised polypropylene fabric, specifically where slopes exceed 1:3.
- Stake all specimen trees and fruit trees with two 2400mm long x 90mm H4 unilog timber stakes driven into firm ground, stakes to be vertical and of matching height. Allow three stakes for large trees or in heavily exposed conditions. Locate the stakes so that they support the tree in windy weather conditions. Tie the stakes with 50mm hessian webbing firmly fixed with galvanised staples to stakes at 2/3 the height of the main trunk.
- On completion ensure that any drainage material is undisturbed and all buried services are undamaged.

MAINTENANCE:

- Owner of the property is to ensure that landscaping areas are maintained in a manner and duration that complies with Council requirements.
- Maintenance includes any operations necessary to assure good plant growth and attain a tidy, weed-free appearance, including, but not limited to, regular watering as necessary, weeding, cultivating, pruning, control of fungal and other diseases, repair broken stakes and ties.
- Replacement planting of any dead, dying, unhealthy or vandalised plants. Replacement planting shall be (preferably within April to August) of the same species and grades as the original schedule.

DISCLAIMERS:

Drawings and specifications have been prepared on the understanding that the building contractor(s) has sound knowledge and experience for the scope of works. Workmanship and materials should be in accordance with the relevant and most up to date codes, techniques and supplier requirements.

- These plans are to be read in conjunction with the architectural, lighting, civil, infrastructure, resource consent and subdivision drawings.
- This landscape plan is indicative for resource consent landscaping elements to be confirmed and detailed prior to construction.
- Do not scale off drawings, refer to figured dimensions only.
- All hardscape elements to be detailed further in the building consent phase.
- Floor plans and site plans, including vehicle tracking curves and site drainage are sourced from the architect/surveyor, so no liability is taken for the accuracy of this.
- Any significant differing existing site features found on site that could affect the landscape design must be notified to the landscape architect before construction commences.
- Ensure all gardens are 225mm min below finished floor level.
- Ensure permanent paving is 175mm below finished floor level.
- Myrtle rust: Contractor to follow protocols and precautions of NZ Plant Producers Inc. (NZPPI) for plants in the Myrtle family (family Myrtaceae). Immediately report any suspected myrtle rust to the property owner and Ministry for Primary Industries (MPI).
- All walls/fences being used as retaining structures to be specified by an engineer. Refer to the building consent set for further information on loading, structure and finished wall heights.
- Services include refuse and washing area to be screened from public view.
- Retain all quality existing planting where possible (unless designated a pest species) and replant good specimens elsewhere on site if viable.

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Project Number: 24315 Drawing Name: Landscaping Specification Sheet Number: L016	Client: Will Edmonds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 01/08/2025	URBANEDGE PLANNING LTD

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Wellington Water
Pre-Application - Three Waters Assessment

Location	85 Ludlam Crescent, Woburn
Date	14th January 2025
Pre-App ID	PREAPP240175

General

1. All three waters infrastructure must comply with Wellington Water's **Regional Standards for Water Services (Dec 2021)** and the **Regional Specifications for Water Services (Dec 2021)**.
2. Any 3-waters assets to be vested with the Council must meet these standards.
3. Please note the information provided is not static and can change over time with new information being made available. Depending on the time frame before RC application you may need to check if this information remains valid.
4. Abandoned connections will need to be disconnected and capped at the public mains.



Figure 1 - Proposed Development Area

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Figure 2 - Proposed Scheme Plan

Water Supply

There is an existing 150mm AC water supply transmission main along Ludlam Crescent. The existing fire hydrant is located near the proposed site, within the required distance to service the development.

The model shows that minimum pressure at the point of supply on the public main is expected to be about 65-69m head, which meets the level of service criteria for pressure.

The model also indicates that available fire flow capacity from the existing hydrants is expected to be compliant with the NZ Fire Code for residential areas (FW2).

There would be no water supply capacity issue for proposed development containing 12 new Lots. It is recommended to extend a rider main to service the proposed lots 1-12. Each lot will need to be provided with a direct and separate water supply connection from the main.

The existing connection can be retained to service one of the lots if it is in good condition, suitably sized, meets current requirements and does not end up in a vehicle crossing.

Any redundant laterals are to be abandoned and capped at the main.

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Wastewater

There is an existing 525mm ID RCON wastewater main along Ludlam Crescent.

It is recommended to extend a new public wastewater main to service each proposed lot. Each proposed lot will need to be provided with a direct and separate wastewater lateral to the main.

The existing connection can be retained to service one of the lots if it is a resilient material (PE, uPVC, concrete) in good condition as confirmed by CCTV, is suitably sized and suitably located for the new development.

Where existing laterals are to be abandoned or redirected, the end of the existing wastewater laterals are required to be capped at the main.

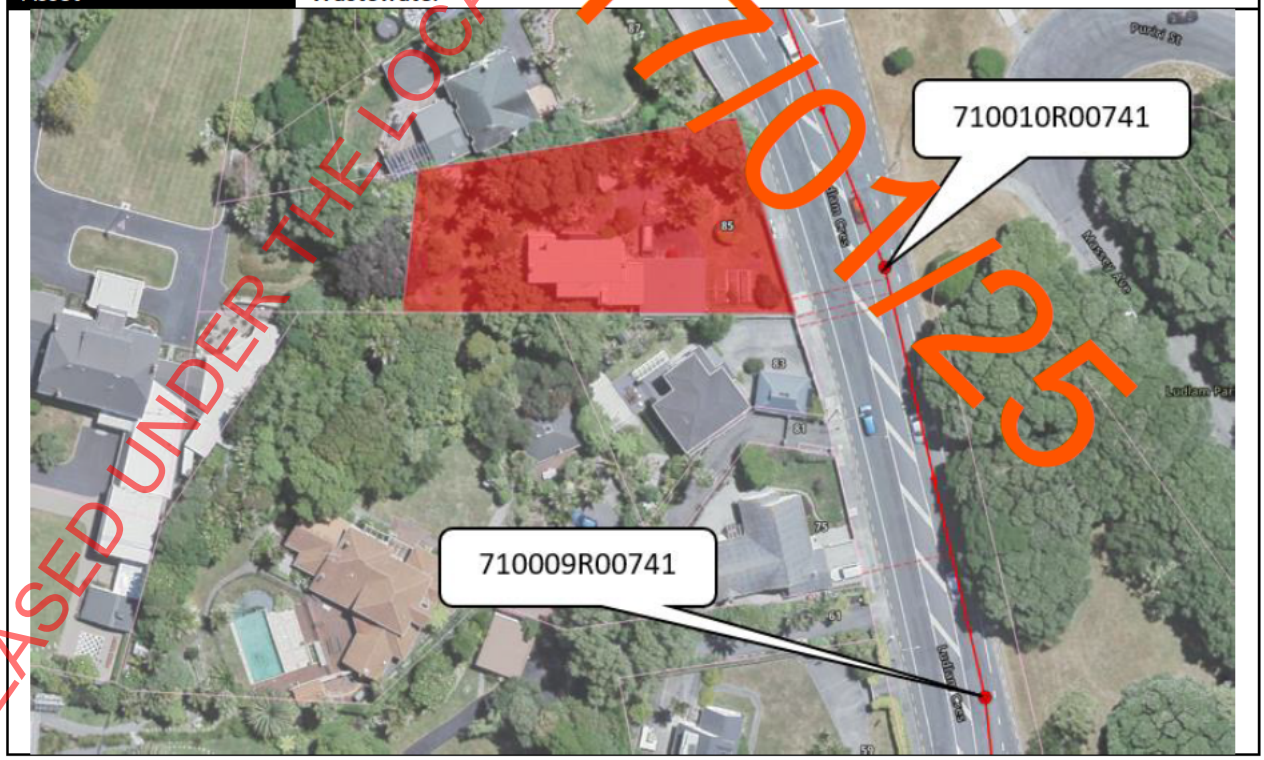
Considering the scale of this development, **wastewater mitigation is required** for the proposed development.

This property is currently connected directly to the network between manholes 710010R00741 and 710009R00741. The network discharges into the Barber Grove pump station. This part of the network appears to have no spare capacity and is surcharged. There is no spare capacity in the network during a 1-year LTS design event and it is possible that overflows to the Hutt River could occur at the downstream Barber Grove pump station.

Please see the detailed wastewater modelling information below.

Asset Impact Assessment

DETAILS	
Address	85 Ludlam Crescent, Woburn, LOWER HUTT
Source	Email dated 14 January 2025
Type	Development Enquiry
Asset	Wastewater



Superseded
17/01/25
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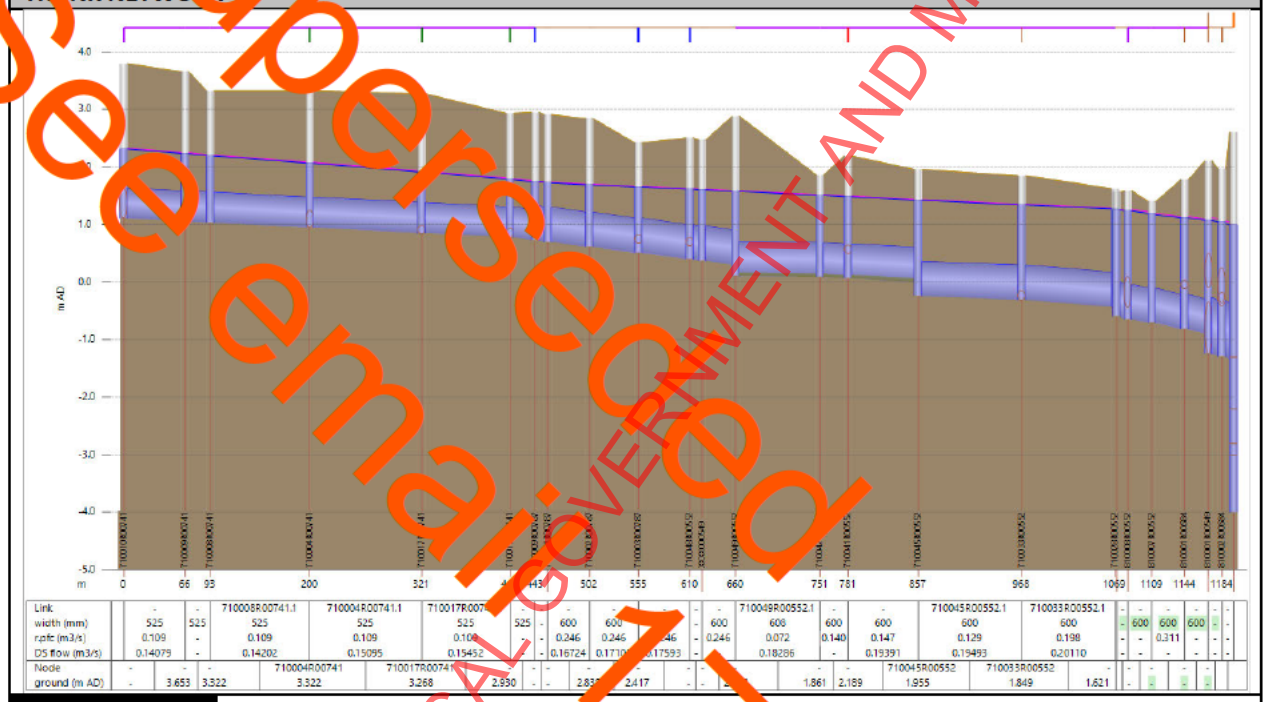
MODEL			
Software	InfoWorks ICM	Version	2024.5
Model Name	HCC Hutt City Valley 2019	Version	1
Base Year	2019 (current)		
Design Event	1-year LTS (Hutt 1Y > Birch Lane with evap)		

LOCAL NETWORK	
Current Capacity	This property is connected directly to the trunk network.

TRUNK NETWORK



Current Capacity	This property is currently connected directly to the trunk network between manholes 710010R00741 and 710009R00741. The trunk network discharges into the Barber Grove pump station. This part of the trunk network appears to have no spare capacity and is surcharged. There are two engineered overflows at the pump station at the incoming main and the rising main. They both discharge to the Hutt River. At present it is not clear from the model results as to whether they operate and the frequency.

SUMMARY
There appears to be no spare capacity in the trunk network during a 1-year LTS design event and it is possible that overflows to the Hutt River could occur at the downstream Barber Grove pump station.
DISCLAIMER
This assessment is based on the results from WWL hydraulic models as defined in this memorandum. It does not take into account the impact on the spare design capacity of other developments that have occurred since then, are currently underway, or possible future developments. Non-hydraulic parameters like pipe age, conditions and likelihood of their failure have not been assessed. Flow monitoring may be required to verify these results. This development may impact on the spare design capacity available for possible future developments along the downstream network.

Superseded
See email 17/01/25
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Stormwater Drainage and Stormwater Neutrality

There is an existing 300mm RCON stormwater main along Ludlam Crescent. Each proposed Lot will need to be provided with a separate and direct connection to a public stormwater network or an approved stormwater outfall.

To mitigate the effect of the development on the receiving environment, **hydraulic neutrality is required** for the proposed development. Acceptable solutions for stormwater neutrality are included in Wellington Water document Managing Stormwater Runoff.

Alternatively, pre- and post-development runoff analysis can be undertaken in accordance with Wellington Water guidelines – Reference Guide for Design Storm Hydrology. Appropriate bespoke stormwater management system (detention or retention systems) can be designed based on this guide but require approval from HCC.

Water Sensitive Urban Design

Please check with Greater Wellington Regional Council for water sensitive urban design requirement. GWRC has recently introduced provisions controlling how stormwater from all development sites interacts with the natural environment such as streams and groundwater. We recommend you review the new Greater Wellington rules, especially Rule WH.R5, to see if it applies to your proposal.

Flooding Information

WWL flood model shows that the proposed site is subjected to potential flood hazard.
We recommend the minimum floor level for this site must be 3.7m above Mean Sea Level (1953 Wellington City Datum) and this floor level is quoted to the underside of the floor construction or joist.

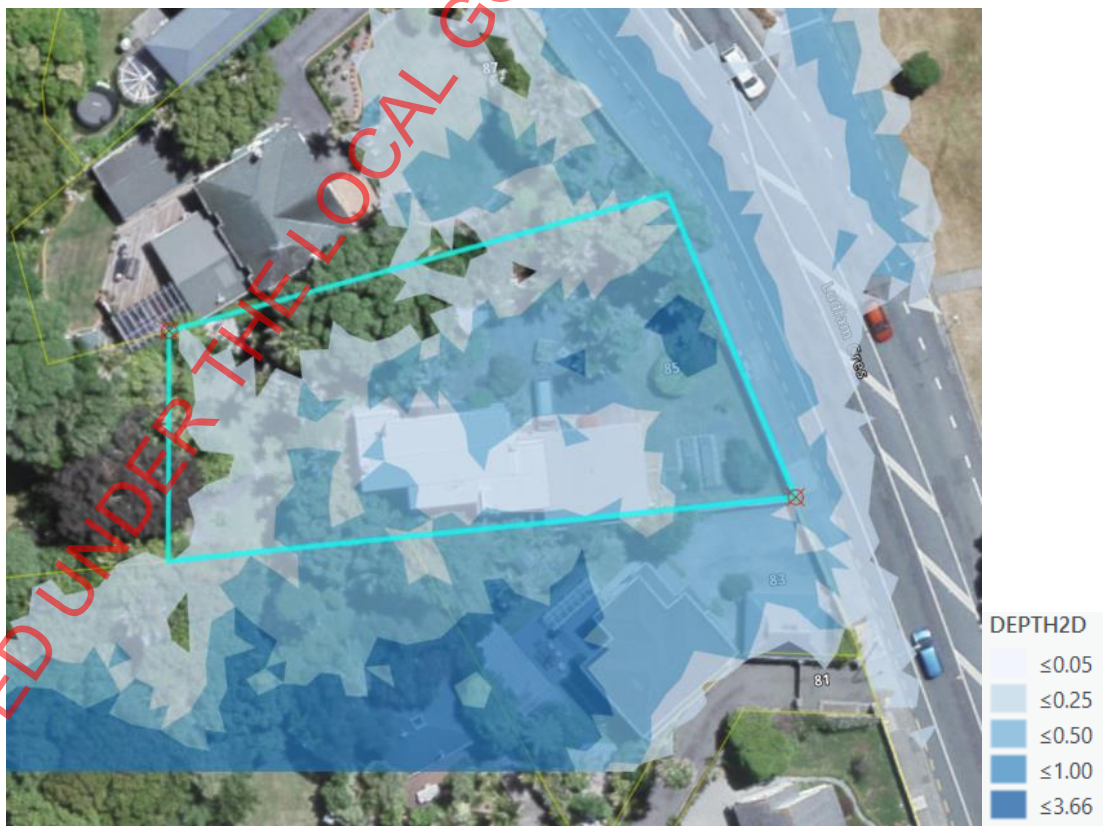

Figure 3 – Flood Map (Based on 2024 HCC District Plan)

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Maximum Flood Depth	0.4 m
Maximum Water Level	3.5 m aD
Recommended MFL	**3.7 m aD**
Overland Flow	0.1 m/s

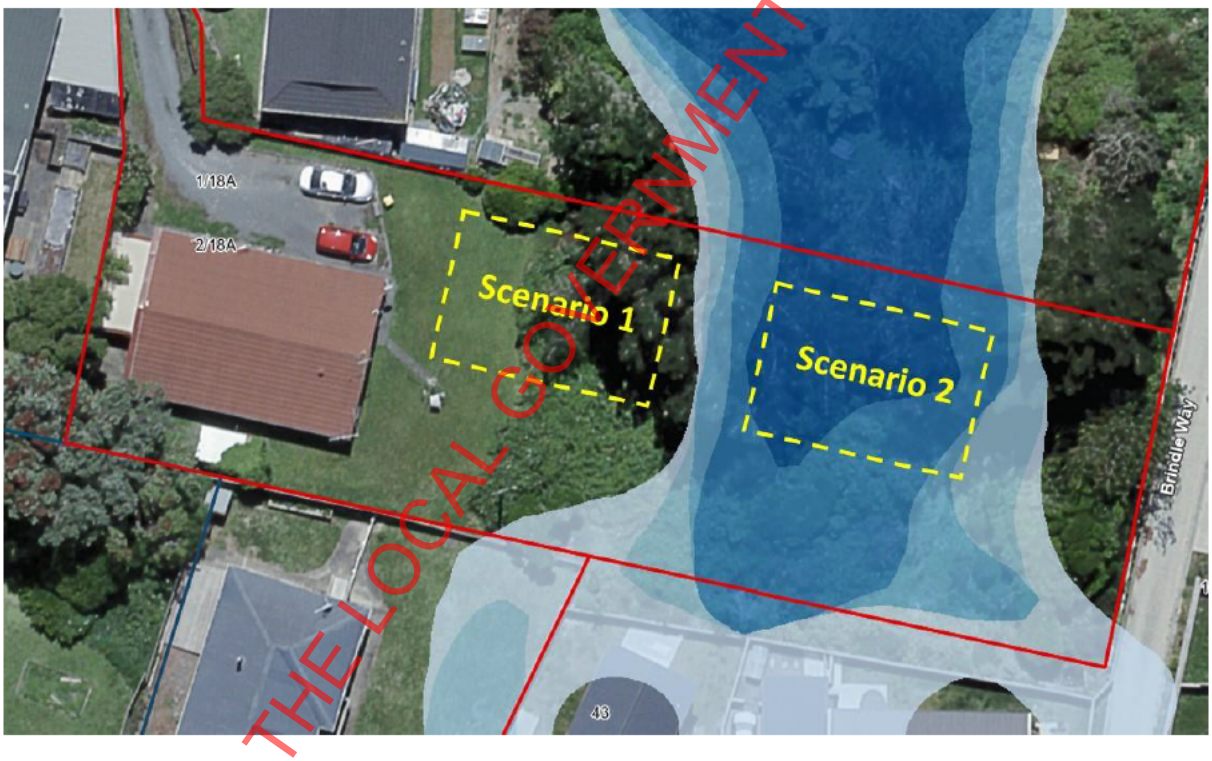
READ THIS FIRST!

If you are considering building a new dwelling, or adding to an existing house, you should use the information provided in this App to minimise flooding risk to the dwelling and ensure that your intended build does not increase flooding risk to the neighbouring properties.

Please follow the steps listed below to get the information you need.

Step 1 – Decide if the intended dwelling is going to be in the flooded part of the parcel.

- **No (Scenario 1 in example below)** – You can apply the building code requirements to set minimum floor level for the dwelling instead of following the advice provided for the parcel.
- **Yes (Scenario 2 in example below)** – Proceed to Step 2.



Step 2 – If you are intending to build in the flooded part of the parcel (Scenario 2)

We recommend that you apply our recommendations to set minimum floor level for the intended dwelling. We provide both minimum floor height (height above highest ground level on the perimeter of intended dwelling footprint) and minimum floor level (in terms of 1953 Wellington City Datum), where you can choose to use whichever is more convenient. This is done for the benefit of customers who are intending to build on a sloping site where water level may vary. If you believe that recommended minimum floor level is exceedingly high you can apply recommended minimum building height instead.

Please note that minimum floor height/level provided is quoted to the underside of the concrete slab or floor timber joist.

Terms used in our advice are defined in the schematic below:

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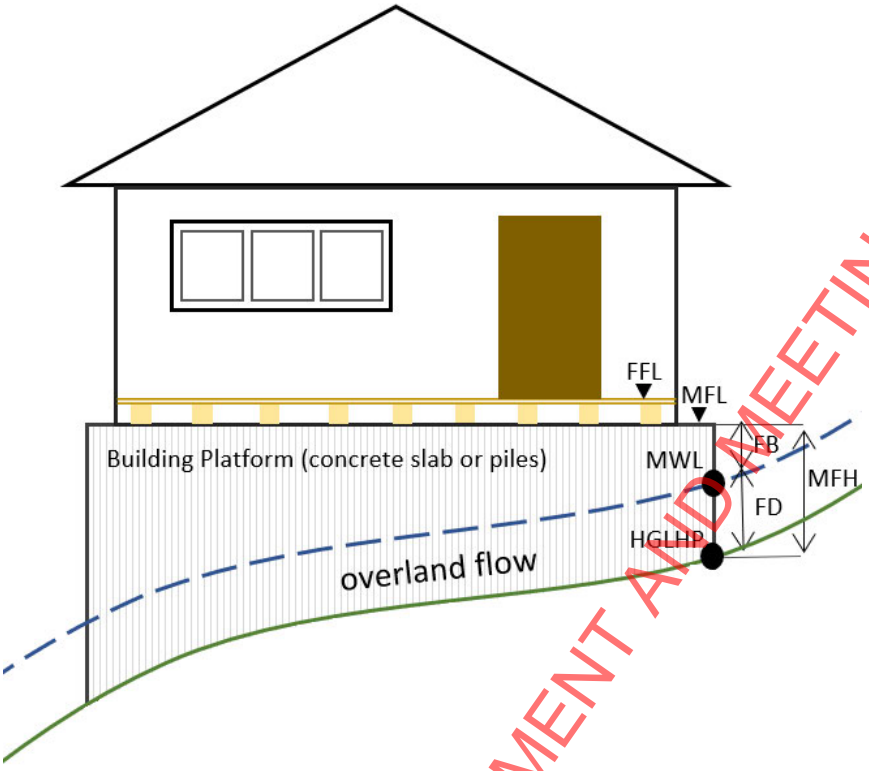

FFL – Finished Floor Level (not provided by Wellington Water)

MFL– Minimum Floor Level stated in terms of 1953 Wellington City Datum (recommended by Wellington Water and quoted to the underside of the concrete slab or floor timber joist)

MFH – Minimum Floor Height (provided by Wellington Water as an alternative to MFL and quoted to the underside of the concrete slab or floor timber joist). MFH must be measured from the highest ground level on the house perimeter of intended dwelling footprint.

HGLHP – Highest Ground Level on House Perimeter must be determined if MFH is used instead of MFL. MFH is measured off this point.

MWL – Maximum Water Level stated in terms of 1953 Wellington City Datum (can be provided on request)

FD – Flood Depth used in determining MFH (can be provided on request)

FB – Free Board used in determining MFL and MFH (may vary depending on site location and nature of flooding)

Step 3 – If you know where you are building

Depending on site location and nature of predicted flooding, you may benefit from detailed assessment.

Please check under "Recommendations" to know whether your parcel qualifies for detailed assessment.

If under "Recommendations" it states: "Would benefit from detailed assessment", you can provide a plan for the proposed dwelling showing where on site it will be located. Wellington Water staff will assess your query taking into consideration location of the proposed dwelling and provide specific minimum floor level recommendation for that location.

Assessed by: Ye Mon Oo
Graduate Engineer - Land Development

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From: YeMon Oo
To: "William Edmonds"
Cc: Eder Lee; Subdivision; Alice Blackwell; Land Development
Subject: RE: 85 Ludlam Crescent – Pre-Application Acknowledgement – PREAPP240175
Date: Friday, 17 January 2025 3:56:40 pm
Attachments: image001.png
image002.png
image003.jpg
image004.png

Hi William,

Thank you for your questions.

Wastewater Mitigation

After reviewing the wastewater main along Ludlam Crescent and reassessing the estimated flow could generate from the proposed development, wastewater mitigation is considered not required for the proposed development.

- The estimated wastewater flow from your site is less than 0.4 L/s. Given this flow and the capacity of the existing main, the effects of your development on the network are considered less than minor. Therefore, **wastewater mitigation is not required for this development.**
- While larger mains (225mm and above) are assumed to be trunk mains in modelling, their classification can vary based on their function. In this case, the Ludlam Crescent main also serves conveyance directly from local households/dwellings and therefore, aligns more closely with a local network as per the Regional Standards and interim wastewater policy. Our GIS map/record also identifies it as a local main.
- Your point about engineered overflows at Barber Grove pump station is correct; these are managed under future upgrade programmes and do not directly affect mitigation requirements. However, it is important to note that the network upstream of the Barber Grove pump station is surcharged and operating beyond its designed capacity.

Flooding – Minimum Floor Levels

- Flood depths vary across the site. While the flood map indicates an MFL of 3.7m for the whole site, a detailed flood assessment could confirm whether lower MFLs are viable for some lots.
- The sketch you provided was georeferenced with GIS flood layers, but detailed assessment is not possible at this stage due to the lack of correct scale in the sketch. Please provide a scheme plan with correct scale and site layout for a more accurate assessment.

Ngā mihi,

Ye Mon Oo Graduate Engineer – Land Development
Network Strategy and Planning

Private Bag 39804, Wellington Mail Centre 5045
Level 4, 25 Victoria Street, Petone, Lower Hutt
www.wellingtonwater.co.nz

From: William Edmonds s7(2)(a)
Sent: Tuesday, January 14, 2025 6:45 PM
To: YeMon Oo <YeMon.Oo@wellingtonwater.co.nz>

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Cc: Eder Lee <Eder.Lee@huttcity.govt.nz>; Subdivision <Subdivision@huttcity.govt.nz>; alice@uep.co.nz; Land Development <Land.Development@wellingtonwater.co.nz>
Subject: Re: 85 Ludlam Crescent – Pre-Application Acknowledgement – PREAPP240175

Caution: This is an external email. Please take care when clicking links or opening attachments.

Good evening Ye Mon

Happy New Year and hope you had a relaxing break.

I have some questions if that's ok. As follows:

Wastewater mitigation

As per your attached modelling, I understand that "the property is connected directly to the trunk network" and as "there appears to be no spare capacity in the trunk network", wastewater mitigation is required.
My understanding of Wellington Water's wastewater mitigation policy is that wastewater mitigation is not required to mitigate the effect of the development on overflows on the trunk network. As the property connects directly to the trunk network, shouldn't that mean that no wastewater mitigation is required for this development?

I also note from your policy that "*increased volume or frequency of overflows at constructed overflows is not considered, as management of overflows at these locations will be subject to programmes under future resource consent conditions.*"
My understanding therefore is that the engineered overflows at the Barber Gr pump station that you refer to would also not factor into whether mitigation is required.

Very keen to get clarity here as this would easily add over $100k to my costs.

Flooding – minimum floor levels
The flood map (figure 3) that you have included in your advice shows only a small portion of the property as dark blue (<3.66). My assumption is that because of these areas, you have recommended that the minimum floor level is set at 3.7 for the whole site (presumably to be on the safe side).
I note from the last page of your advice that you do allow detailed assessments where there is greater certainty as to where the dwelling will be located.

I anticipate that most of the units would be in less flooded areas of the site (I think only unit 2, possibly unit 3 would be in that area).

My question therefore is whether I can obtain different minimum floor levels for each block of units once I have more certainty on the design, as I imagine this would save significantly on foundation costs.

Thank you for your consideration.

Kind regards
Will

On Tue, Jan 14, 2025 at 3:55 PM YeMon Oo <YeMon.Oo@wellingtonwater.co.nz> wrote:

> Kia Ora Eder,
>
> Happy New Year!
>
> Please find attached WWL Pre-app advice for 85 Ludlam Crescent.
>
> Let me know if there are any further questions regarding three waters information.
>
> Ngā mihi,
> **Ye Mon Oo** **Graduate Engineer – Land Development**
> **Network Strategy and Planning**

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Private Bag 39804, Wellington Mail Centre 5045
Level 4, 25 Victoria Street, Petone, Lower Hutt
www.wellingtonwater.co.nz

From: Land Development <Land.Development@wellingtonwater.co.nz>
Sent: Monday, December 9, 2024 10:31 AM
To: YeMon Oo <YeMon.Oo@wellingtonwater.co.nz>
Cc: Eder Lee <Eder.Lee@huttcity.govt.nz>; Subdivision <Subdivision@huttcity.govt.nz>; s7(2)(a) [redacted]
alice@uep.co.nz
Subject: RE: 85 Ludlam Crescent – Pre-Application Acknowledgement – PREAPP240175

Hi YeMon,

Please kindly assist the pre app query from HCC.

Loaded and thanks.

Kind regards,

Toi - Land Development Team

Network Strategy & Planning

From: Eder Lee <Eder.Lee@huttcity.govt.nz>
Sent: Thursday, December 5, 2024 1:12 PM
To: alice@uep.co.nz; s7(2)(a) [redacted]
Cc: Land Development <Land.Development@wellingtonwater.co.nz>; Subdivision <Subdivision@huttcity.govt.nz>
Subject: 85 Ludlam Crescent – Pre-Application Acknowledgement – PREAPP240175

Caution: This is an external email. Please take care when clicking links or opening attachments.

Kia ora,

Thank you for your interest in a pre-application lodgement. We have registered your request as **PREAPP240175** for the following proposal: **WWL COMMENTS ONLY - 12 Unit multi-unit development.**

Your pre-application request for the following items have been noted:

- **Wellington Water Advice**
  Wellington Water will contact you directly regarding their comments on your proposed activity.

Any fees and charges will be issued after the pre-application is closed, during the next monthly billing cycle.

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If you have additional concerns or questions that you need to discuss, please feel free contact us via:
Resource.Consents@huttcity.govt.nz
Ngā mihi,

Eder Lee
Planning Technician

Hutt City Council, 30 Laings Road, Hutt Central, Lower Hutt 5010
P: s7(2)(a) M: W: www.huttcity.govt.nz

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---

From: Jotform <noreply@jotform.com>
Sent: Thursday, December 5, 2024 12:27 PM
To: RC_Preapps <RC_Preapps@huttcity.govt.nz>
Subject: [EXTERNAL] Re: Resource Consent Pre-Application Meeting Request Form

Resource Consent Pre-Application Meeting Request Form

Name of Agent:	Alice Blackwell
Who is the applicant for the property?	William Edmonds
Who should we contact for the pre-application stage?	Alice Blackwell
Contact email:	alice@uep.co.nz
Contact mobile:	s7(2)(a)
Site address(es):	85 Ludlam Crescent

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Known title restrictions:	None
Name	William Edmonds
Email	s7(2)(a)
Phone Number	s7(2)(a)
Billing Address:	c/- UEP 5 Bouverie Street, Petone, Lower Hutt, 5045
Proposal summary:	12 Unit multi-unit development
Have you had professional advice obtained to date?	No
Do you require specialist advice?	Wellington Water advice (please specify servicing, three waters and infrastructure capacity, flood risk, and minimum floor levels)
Can you specify what parts of the proposal you'd like advice on?	Minimum floor levels Waste water mitigation requirements
Preferred type of meeting:	Email (only recommended for proposals of a limited scale)
Names of expected attendees:	Via email
	IMG_1701.jpeg

You can edit this submission and view all your submissions easily.

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URBAN DESIGN ASSESSMENT

85 LUDLAM STREET, WOBURN, LOWER HUTT

PREPARED FOR WILLIAM EDMONDS

AUGUST 1 2025

URBANEDGE PLANNING LTD

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CONTENTS

Site Analysis	3
Design Response	4
4G 3.9 High Density Residential Activity Area	5
Policy I	5
Policy II	6
Policy III	7
Policy IV	8
Policy V	9
Policy VI	10
Policy VII	11
Policy VIII	12
Policy IX	13
Conclusion	14

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SITE ANALYSIS

Key observations about the site are summarised in the analysis below:

- The site has a total area of 1,359m², is centrally located in the High-Density Residential Activity Area, within 300m of the nearest bus stops in two directions and 800m of Woburn train station.
- The nearest on-street carparking is located across the road, on Ludlam Crescent, which is a busy, arterial route. These carparks have a limit of 180mins stay time.
- The site is typically flat and heavily vegetated with established trees, including native and exotic species. Though none of these are protected under the district plan.
- There are several existing, established palms on the site, twelve of which have been surveyed and documented as part of the Tree Protection Management Plan (TPMP) - Appendix I of the AEE, prepared by Tend Tree Consultancy. Eight of these will be retained as part of the development, with an aim to transplant two more elsewhere on the site. The palms are typically between 10 and 20m tall and likely to be approximately 100 years old. All other vegetation existing on site will be removed.
- The frontage is currently fully fenced, with limited passive surveillance to the street.
- There are utility boxes located at the street front, on the public footpath, which will be relocated.

Local amenities within walking distance of the site include:

- Queensgate Shopping Centre and Hutt Central, 1.1km (15 min walk).
- Hutt Recreation Ground, 240m (3 min walk).
- Woburn Train Station, 500m (7 min walk).
- Moera Village and shops, 950m (13min walk).
- Hutt Intermediate School, 850m (13 min walk)
- Hutt Valley High School, 550m (8 min walk)
- Randwick Primary School, 1.2km (17min walk)



Context plan showing the sites location in proximity to local amenity and within the planning framework.



View from the site to the south showing the nearest on street parking (circled in light blue dash), located opposite the site on Ludlam Crescent, which is a busy arterial street, and has a time limit of 180mins maximum.



View from the site to the north, along Ludlam Crescent. The existing utilities on the public footpath (circled dark blue dash) are proposed to be relocated.



3d image showing the site in the existing context, base image sourced from

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DESIGN RESPONSE

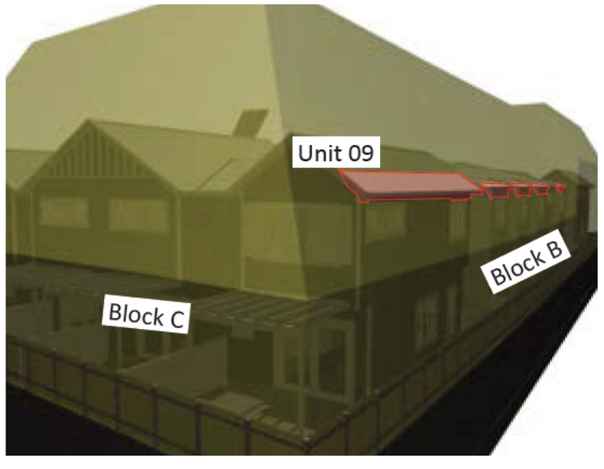
Compliant	Not Compliant	Not Relevant	Multi-Unit standards compliance		
●			*Building Coverage*	**4G 4.2.2**	*Maximum 50%*
●			*Building Height*	**4G 4.2.3**	*Max 22m (unless specified otherwise in online maps)*
	●		*Height in relation to boundary*	**4G 4.2.4**	*8m and 60 degrees for first 21.5m of the side boundary and 4m and 60 degrees for the remainder*
	●		*Setbacks*	**4G 4.2.5**	*Minimum 1.5m front yard setback and 1m for all other boundaries. One accessory building up to 6m can be located in the side or rear yard*
●			*Permeable surfaces*	**4G 4.2.7**	*Minimum 30% of the site*
	●		*Outdoor Living Space*	**4G 4.2.8**	*Minimum 20m² and 3m at ground level, or balcony with minimum area of 8m² and dimension of 1.8m. Can be grouped communally.*
	●		*Outlook space*	**4G 4.2.13**	*4m x 4m from the centre point of the main living room window and 1m x 1m for all other windows of habitable rooms*
●			*Windows to street*	**4G 4.2.14**	*Minimum 20% of the front elevation*
	●		*Landscape area*	**4G 4.2.15**	*Minimum 20% of the whole site, including tree canopy*

Key points about the design are summarised below:

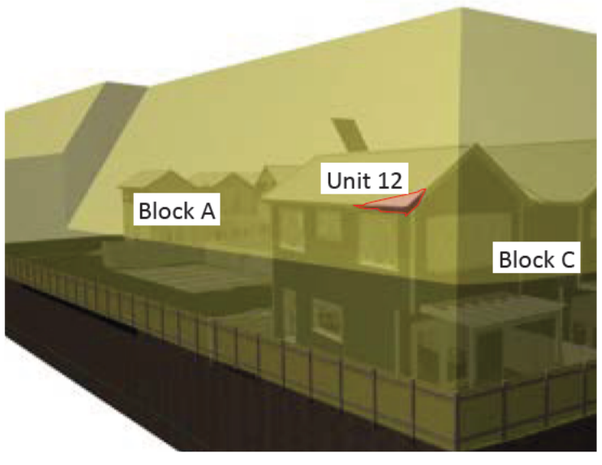
- Twelve new dwellings are proposed, arranged in three, two-storey blocks of four townhouses.
- Two three-bedroom and two two-and-a-half-bedroom dwellings are proposed to Block B, and four two-bedroom dwellings are proposed to each of Blocks A and C.
- Every dwelling will have ground-level living areas, oriented to either the north or west.
- Ten carparks are proposed, in a shared, central area.
- All units will utilise private waste collection, from a shared, screened refuse bin storage and collection location, near the street front.
- All units will have access to the shared access and carparking area, and the western pedestrian path that primarily provides access to the main entrances of Units 09 and 10.
- Only units in Block B will have access to the southern maintenance access path that runs behind these properties and must notify other units in this block before accessing.
- Only Units in Block A will have access to the rear service path that connects the rear of Unit 01 with the carparking area.
- An underground stormwater detention system is proposed, below the driveway, to service all proposed dwellings.
- Eight of the existing mature trees on site (including nikau palms and washingtonia palms) will be retained and integrated into the proposed site layout, with the aim of transplanting a further two within the site, in coordination with arborist advice.
- There will be one minor recession plane breach to the northern boundary and several to the southern boundary, though these façades will be articulated to reduce shading impacts to neighbouring properties, and will not include windows, so result in no added privacy impacts to the neighbouring properties.
- All units in Block A will breach the front yard setback, and Unit 1 in Block A will also breach the southern side yard setback. Despite these breaches, the frontage will have sufficient space for planting, including trees, and the southern facade of Unit 1 will retain visual interest, without breaching the recession plane or creating privacy impacts on the neighbouring property.
- Several units do not meet the minimum outdoor living area or primary outlook requirements. Sufficient space for outdoor furnishings will be provided to all units, and the outdoor living areas will all receive direct sunlight amenity and include space for planting.
- Only 16% landscaped area will be achieved across the site, though it is considered that the retention of the existing trees will aid in integrating the development into the receiving context and providing green amenity.



Landscape plan showing recession plane breach locations, Block A setback breaches,units with undersized outdoor living areas and 16% landscaped areas across the site. Refer to Appendix D.



non-compliance, recession plane breaches to southern boundary. Refer to Appendix B.



non-compliance, recession plane breach to northern boundary. Refer to Appendix B.

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Policy I

Ensure the building location, form, and appearance is comprehensively designed with the landscape and is compatible with the planned urban built character of the High Density Residential Activity Area

- There are twelve nikau palms on the site. Eight will be retained within the final development, with a further two to be transplanted within the site if possible. All other existing vegetation will be removed.
- New planting is proposed throughout the development to compliment the existing trees for retention, and the proposed built form.
- The proposed dwellings will all be two-storeys in height, with two- or three-bedrooms. They will each have a gable roof and a covered main entrance that will aid in providing a sense of address to each dwelling.
- Recession plane breaches will occur to the northern and southern boundaries. The northern breach will occur to a length of 0.6m of Unit 12 only at the western corner, and the southern breaches will occur to the southern protrusions of Units 5-9 at lengths not exceeding 3.77m. The largest breach will not exceed 0.75m in height.
- Every Unit in Block A will include a small front setback breach, at the north-east corners, not exceeding 2.4m² for any unit. The arrangement allows for frontage planting, including trees, and articulated entrances, so that an open and welcoming frontage will still be achieved, despite the breach. Additionally, Unit 1 will extend 300mm into its southern side-yard setback along its entire length. Fire-rated windows will be installed on the southern façade of Unit 1 to maintain visual interest. The upper window is to a bathroom and will be frosted glass, maintaining privacy for the neighbouring property to the south. Despite the setback breach, this unit will not breach the southern recession plane.
- Shading and building bulk impacts created by the recession plane breaches to the southern neighbour will be limited by the gabled roof forms and modulation of the southern façades of Block B. Block C has been oriented so that only one unit (Unit 9) will create a recession plane breach at the south boundary, limiting impacts to the southern neighbour. The breach will not include any portions of windows, to limit privacy impacts on neighbouring properties. The northern breach will only occur to a small portion of the roofline of proposed Unit 12, so will have limited building bulk and shading impacts to the northern neighbour.



Render indicating the proposed street frontage, with Units 1-4, Block A, shown in the foreground, and Units 11 and 12 of Block C, visible to the rear. Provided by Moore Design, refer to Appendix B for original architectural plans.



Image shows the recession plane breach to northern facade of Unit 12, Block C. Provided by Moore Design, refer to Appendix B for original architectural plans.



Image shows the recession plane beaches to the southern façades of Units 5-8, Block B. Provided by Moore Design, refer to Appendix B for original architectural plans.

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Policy II

Achieve a positive frontage that engages and interacts with the street with a focus on human activity and scale

- Four of the twelve new dwellings will front to the street and will provide improved passive surveillance over the street front, from kitchen windows positioned above the sinks.
- New planting is proposed between the public footpaths and the front facade, with trees, to create a setback from the windows and limit views into dwellings, while still allowing views out to the street. Three mature palms will be retained to the northern side of Unit 4 that will be visible from the street front, and will aid in integrating the development into the receiving context.
- The proposed planting will also add amenity and softening to the streetscape, again improving the existing condition which is occupied by a solid 1.8m high fence and gate.
- The existing vehicle access location will be retained, and widened to allow a two-way entrance and exit. A carpark (Carpark 1) is proposed to the south side of the access, which will be the only carpark visible from the street.
- While there is no dedicated pedestrian-only path from the street to the rear dwellings, a flush path will be defined with surface treatment variation to indicate pedestrian priority access without obstructing vehicle manoeuvring space.
- Planting will be provided to both sides of the vehicle access for softening and amenity, including species that do not exceed 1m in mature height, so that vehicle sightlines will not be obscured.



Render showing frontage treatment, provided by Moore Designs, edited to include a small tree and individual letterboxes, refer to Appendix B for original architectural plans.



Photo showing the existing frontage treatment.



Landscape plan showing frontage treatment, refer to Appendix D.

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Policy III

Achieve visual interest and aesthetic coherence using architectural and landscape design techniques

- Every elevation will include fenestration and articulation, so that blank façades will be avoided throughout the development.
- Block A will create a yard setback breach of 300mm. Therefore, the cladding and windows to the south façade of Unit 1 will be fire-rated.
- Visual interest will be created with gable rooflines to each unit, and further architectural detailing will be added to the gables for further interest.
- Every outdoor living area will include a pergola, integrated into the building form. As Units 3-8 will have outdoor living areas oriented toward the central carparking area, these pergolas will be visible from the shared space and add a secondary form to further visually break up the built form.
- Eight of the existing palms on the site will be retained. They are well established, reaching approximately 20m in height, and will aid in integrating the development into the receiving environment. Two others will be transplanted on site if possible. The existing trees to be retained are located in or around the shared spaces, so will be a shared amenity for residents.

Policy IV

Minimise the effects of driveways, manoeuvring, and parking areas on the quality of the site and street, while ensuring safety

- The carparks will be located centrally within the site, to limit visibility from the street.
- A total of ten carparks are proposed to service the twelve unit development.
- The parking area will be lined with planting where possible. for visual softening. Carparks and pedestrian priority paths will be delineated with surface treatment variation, that will also aid in encouraging slower vehicle speeds.
- The use of permeable concrete and paving will allow rainwater to reach the root systems of the existing trees for retention, for ongoing tree health.
- Wheel stops are proposed between the proposed carparks and pedestrian priority paths to prevent parking over accesses.
- Where fences are proposed against shared areas, these will be of a slat typology, that will allow some visibility to the planting behind, while maintaining a degree of privacy.



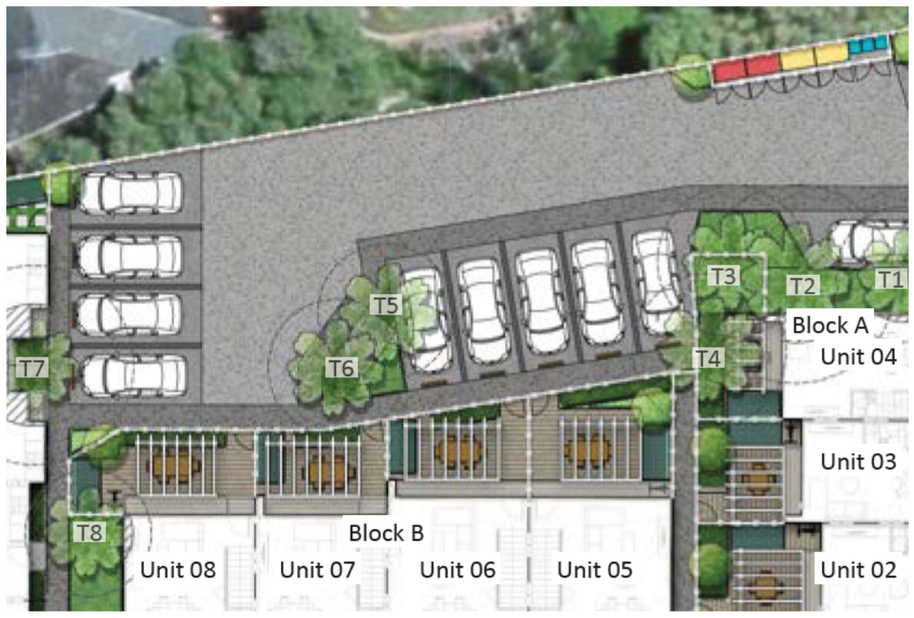
Render showing the outdoor living areas of Units 5-7, as perceived from the shared parking area. Provided by Moore Designs, refer to Appendix B for original architectural plans.



Render showing the outdoor living areas of Unit 8 and main entrances to Units 10 and 11 as perceived from the shared parking area. Provided by Moore Designs, refer to Appendix B for original architectural plans.



Render showing trees 1-3 and 5-6 for retention, in the context of the proposed development. Provided by Moore Designs, refer to Appendix B for original architectural plans.



Landscape plan showing existing trees for retention and landscape treatments to the shared parking area and interface with the outdoor living areas for Units 5-8, refer to Appendix D.

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Policy V

Integrate building form and open space design to achieve high amenity, safe and functional outcomes for residents in both private and communal spaces, while respectful of neighbouring sites

- Every Unit will be provided with a private outdoor living area that will be directly accessible from the main internal living area, via glazed doors. For Units 1-4 and 9-12, these will be oriented to the west, for Units 5-8, these will be north facing.
- The outdoor living areas of Units 3, 6, 7, 10 and 11 will not meet the minimum 20m² area. However, they will all meet the minimum 3m minimum dimension, and provide sufficient space for the placement of outdoor furnishings, planting and services, in addition to circulation and access.
- The only communal spaces within the site will be associated with shared accesses, either pedestrian of vehicular. These will all receive passive surveillance, either from the kitchen windows of Units 09-12, or the internal and external living areas of Units 1-8, via 1.4m slat fencing. Secondary surveillance of shared areas will also occur from the upper-level bedrooms of all the proposed dwellings.
- The shared areas will include planting where possible, and existing trees 1-2, 5-6 and 8 are located within proposed shared areas. Trees 3 and 4 will be located with proposed Lot 4 and tree 7 will be located within proposed lots 11 and 12. The existing trees will aid in integrating the development into the receiving landscape and neighbourhood.
- Unit 1 in Block A will extend into the side yard setback by 300mm, though will not breach the southern recession plane. The design places fire-rated windows to both levels of this elevation, so that visual interest will still be achieved. This will not impact on privacy for the neighbouring property as the lower-level window will be screened by boundary fencing and the upper-level window is to a bathroom and will be frosted.
- The units in Block B will each protrude slightly into the southern recession plane.
- Unit 9 will extend into the southern recession plane and Unit 12 will extend into the northern recession plane in Block C.
- All other proposed units will sit within the statutory recession planes, ensuring they are within the planned urban context for the site. The two storey building forms are comparable in scale to buildings in the surrounding neighbourhood.

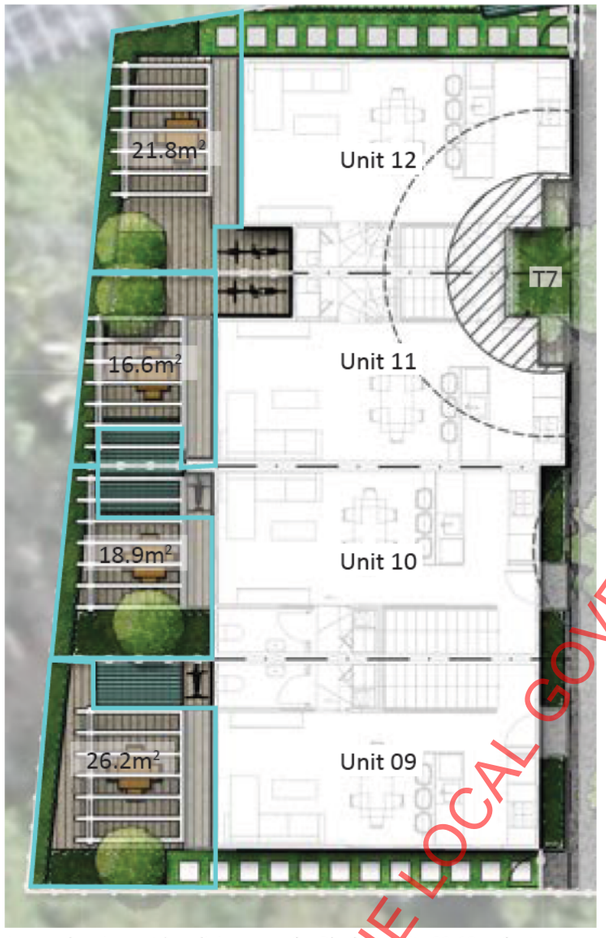

Image showing outdoor living areas for Block C, Units 09-12, refer to Appendix D.



Image showing outdoor living areas for Block A, Units 01-04, refer to Appendix D.



Render showing the outdoor living areas of Units 10-12. Provided by Moore Designs, refer to Appendix B for original architectural plans.

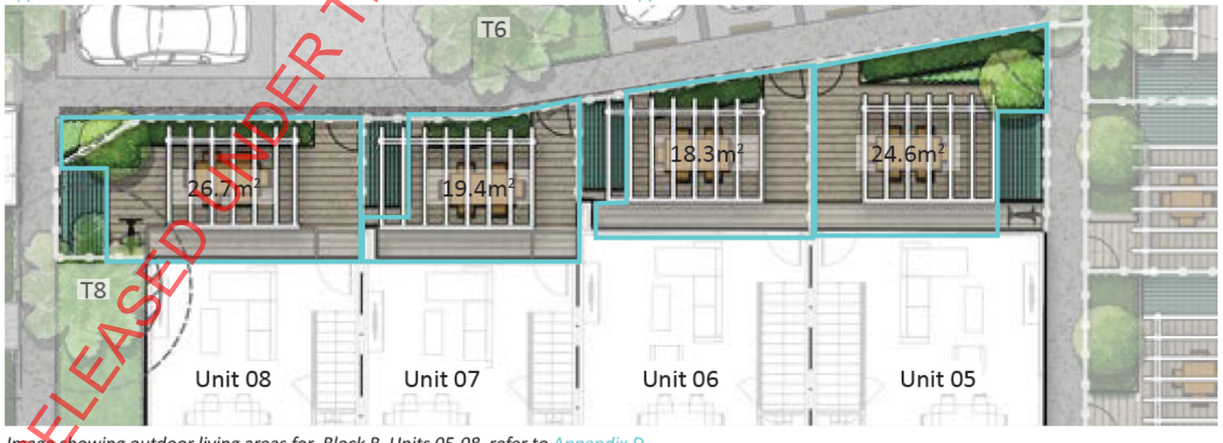

Image showing outdoor living areas for Block B, Units 05-08, refer to Appendix D.



Render showing the outdoor living areas of Units 5-6. Provided by Moore Designs, refer to Appendix B for original architectural plans.

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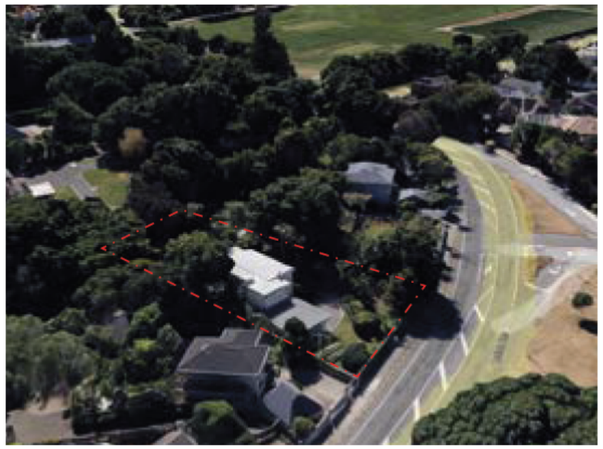
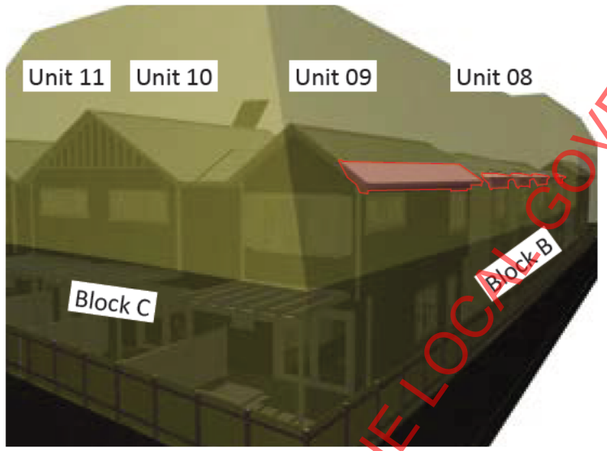
Policy VI

Achieve reasonable sunlight, daylight, and outlook for all residential units and associated outdoor spaces where possible, while minimising overlooking of neighbouring living and private outdoor spaces

- The outdoor living areas will be located in private patios, oriented to either the north or the west, to maximise passive solar gain.
- The internal living areas will all have direct access to associated outdoor living areas via large, sliding glazed doors, that will aid in providing internal sunlight access throughout the day for all dwellings.
- Units 11 and 12 will not meet the minimum 4x4m outlook space, however, all other units will meet the outlook requirements. The outdoor living area for Unit 12 exceeds 20m² and has access to additional outdoor space along the northern side yard which ensures outdoor amenity is still achieved. The outdoor living area for Unit 11 is undersized but still achieves a minimum dimension of 3m and provides a reasonable outdoor space to accommodate outdoor furniture and landscaping for a two-bedroom dwelling. Both of these dwellings have expansive outlook to the east from their kitchen windows, so will not feel too enclosed. As such, while not technically meeting minimum outlook standards, both dwellings still have access to reasonable outdoor amenity.
- The pergolas proposed to each of the outdoor living areas will aid in providing privacy to the outdoor living areas, by screening views from the bedrooms into private areas of the adjacent lots.
- Bulk and dominance impacts created by the recession plane breaches to roofs along the southern and northern boundaries will be limited through building modulation and hipped roof forms. This will also aid in reducing shading impacts to the southern neighbour created by the southern recession plane breaches.
- No windows will occur within any recession plane breaches, to ensure loss of privacy is not created through these breaches.



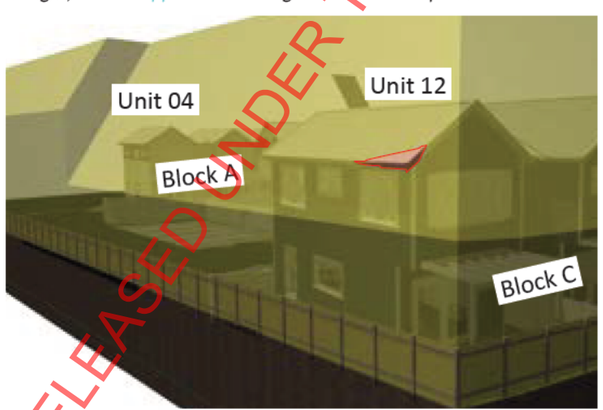
Existing site extents and neighbouring properties



Recession plane breaches to southern boundary. Provided by Moore Designs, refer to Appendix B for original architectural plans.



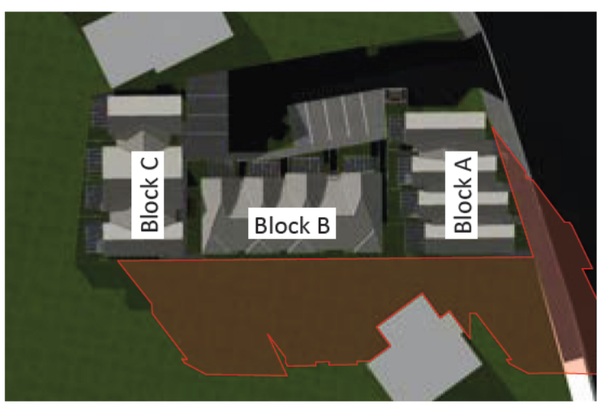
Landscape plan showing outlook and location of existing trees (T1-T9) to be retained, refer to Appendix D.



Recession plane breach to northern boundary. Provided by Moore Designs, refer to Appendix B for original architectural plans.



Mid-winter shading diagram, 10am. Provided by Moore Designs, refer to Appendix B for original architectural plans.



Mid-winter shading diagram, 4pm. Provided by Moore Designs, refer to Appendix B for original architectural plans.

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Policy VII

Provide reasonable internal visual privacy for all units through well-considered location of elements, rather than relying on window coverings

- The indoor and outdoor living areas of all proposed units will be located at ground-level which will minimise the loss of privacy for living areas within the development and to neighbouring properties.
- The proposed dwellings will all include ground-level indoor and outdoor living areas, which have been designed to ensure privacy is maintained without preventing passive surveillance of shared and public spaces.
- Units 5-8 will be located centrally, with outdoor living areas positioned to the front yards, with access to the main entrance passing through from the central carparking area. 1.8m high privacy fencing will be utilised to screen the proposed clotheslines and to provide privacy between the attached dwellings. All other boundary fences for the central block will be 1.4m high slat, to ensure that a degree of passive surveillance will be achieved over the shared area.
- Hedging is proposed to aid privacy to the living areas of the units in Block B, this will be visible between the slat fencing, adding a degree of greening amenity to the shared areas.
- Units in Block A include street fronting windows. These will sit above the kitchen bench or hob, at eye-level, encouraging views out to the street, while limiting visibility to more privacy sensitive living areas of the houses.
- A shared service path is proposed to the rear of Block A, which will only be accessed by Block A residents. Fences between Block A and this path will be 1.4m high slat, to ensure passive surveillance is achieved.
- Units in Block C will have rear, west, oriented outdoor living areas that will be fully surrounded by 1.8m high fencing for privacy.
- Units in Block C will include windows that will front to the shared paths and carparking area. These will sit above the kitchen bench or hob, at eye-level, encouraging views out to the shared spaces, while limiting visibility to more privacy sensitive living areas.



Render showing indicative locations of existing trees 4-6 to be retained and outdoor living areas for Units 03-08 (Blocks A and B) in relation to the shared access areas to the centre of the site. Fencing to include 1.4m high slat portions contrasting with 1.8m high privacy fencing shown, indicative fence heights shown by light blue line, refer to the landscape plan, Appendix D for fencing details. Render provided by Moore Designs, refer to Appendix B for original architectural plans.



Render showing indicative location of existing tree 7 to be retained and frontage windows of Units in Block C in relation to the shared access areas. Render provided by Moore Designs, refer to Appendix B.



Image shows Fence type 1, 1.8m high privacy fencing. Refer to the landscape plan, Appendix D for further detail.



Image shows Fence type 2, 1.4m high slat fencing. Refer to the landscape plan, Appendix D for further detail.

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Policy VIII

Achieve quality, legible, safe, and efficient circulation

- Every unit will front to either the street, or a shared internal pedestrian path.
- Units 1-4 front directly to the street with direct access from the street. Units 5-12 will be accessed from the central, shared access area. There will be no raised pedestrian path to access the rear units from the street, however, a flush pedestrian priority path will be demarcated with variation in surface treatment to act as a pedestrian priority path or vehicle manoeuvring space as needed.
- The shared bin storage area will sit along the northern site boundary, adjacent the shared entrance, allowing access to this screened service space.
- Units 09 and 10 will be located to the rear of Block B, at the south-western corner of the site. To ensure access to these units are safe, the front boundary fencing to Unit 08 is limited to the corner only, to keep the accessway open and reduce entrapment areas. Landscaping and lighting will be utilised to create an attractive and well-lit entry and access. This will also help with a sense of address to front doors as they will not be directly visible from the wider shared area.
- The rear area behind Block B will be used for maintenance access to Units 05-08 only. These dwellings do not have access from within the dwelling to this rear space to maximise internal living area layouts, recognising the rear southern space will have little outdoor amenity. Instead, residents will have gated access to the rear of these properties as needed. Passive surveillance from ground-level kitchen windows and gated access will assist with deterring access from anyone who should not be there.



Image shows Surface type C, Permeable concrete, to be used for pedestrian priority paths. Vehicular strength.

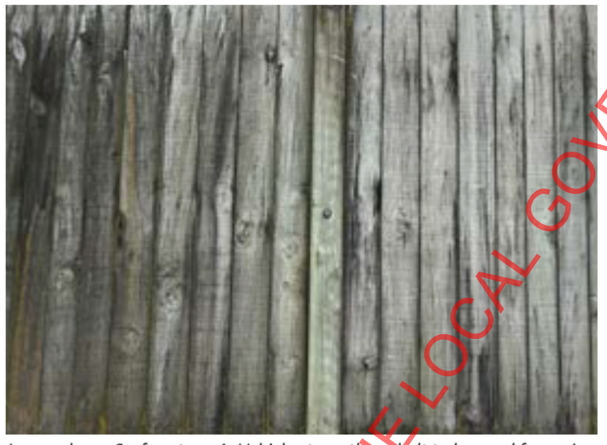
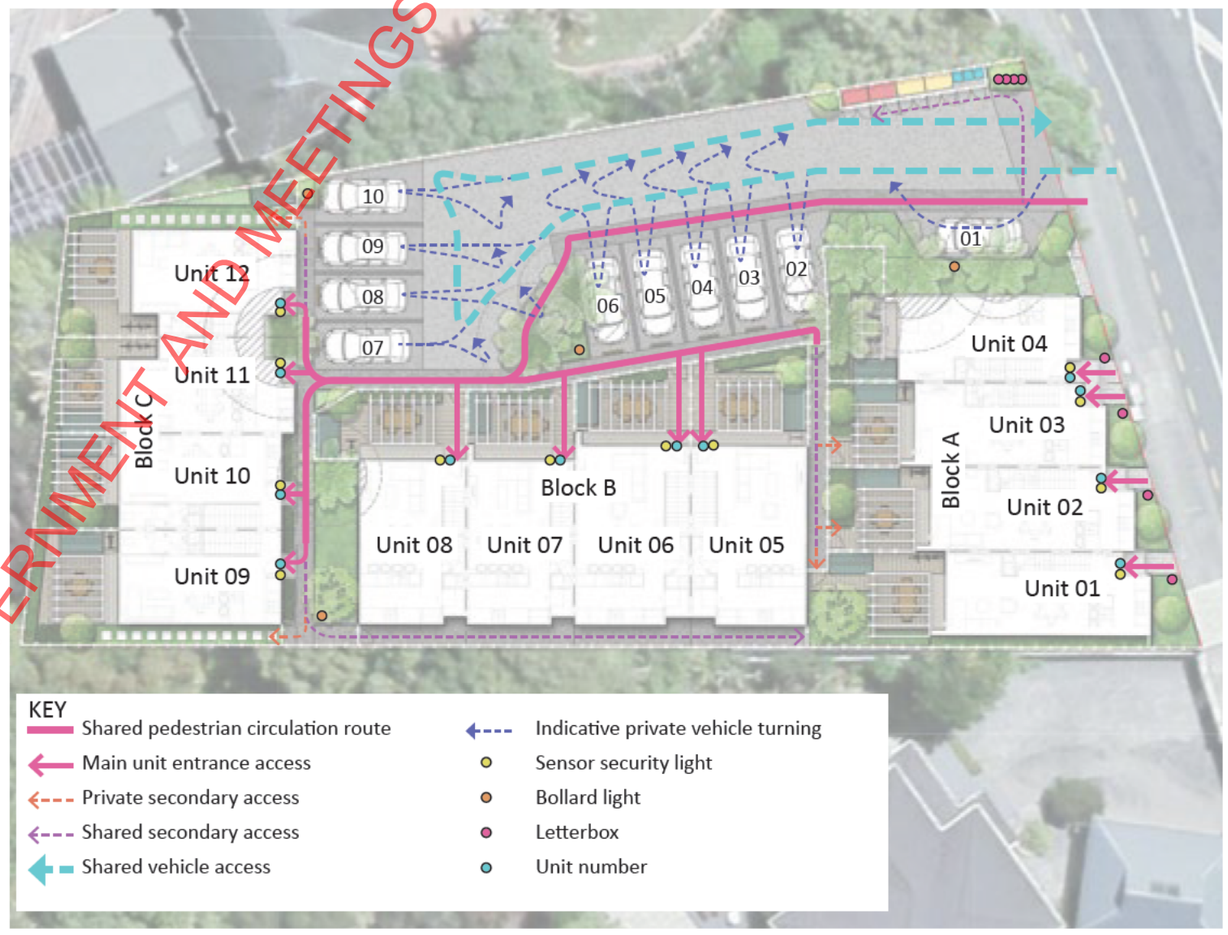


Image shows Surface type A, Vehicle strength asphalt to be used for main vehicle access areas.



Landscape plan showing vehicle and pedestrian circulation across the site, refer to Appendix D.



Image shows Surface types D1 and D2, permeable pavers, colours 1 and 2, to be used for carparks and entrance rumble strips. Vehicle strength.

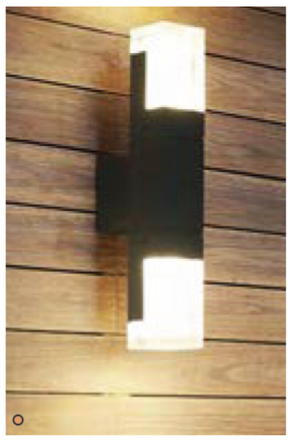


Image shows sensor security light, for each main entrance.



Image shows bollard light, for shared areas.



Image shows grouped letterboxes, for Units 5-12.



Image shows individual letterboxes, for Units 1-4.

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Policy IX

Provide for servicing that is suitably generous, convenient, and visually discreet

- All units are intended to utilise a shared bin storage and collection area near the entrance to the site, where the bins will be screened from view with a 1.2m tall fence. These will be serviced by a private collection truck, which will be able to back into the site from the street and exit in a forwards facing direction, as detailed in the traffic report in Appendix H.
- There will be sufficient space in the shared bin storage area to accommodate two 660L recycling bins (yellow), two 660L waste bins (red) and three 240L glass bins (two for green, and one each for clear and brown, all shown blue) to service the associated units, consistent with the numbers required according to the HCC MUD waste storage calculator (for 8x 2-bedroom dwellings and 4x 3-bedroom dwellings).
- Every unit will be provided with a fold-down clothesline, sized to service the two- and three-bedroom dwellings. They will be fence mounted within the outdoor living areas, where they can be discreetly folded down when not in use.
- Units 4-8 will include outdoor living areas that are north facing and oriented toward the shared parking area. The clotheslines for these dwellings will be screened from shared spaces within the development by 1.8m high fencing, while the remaining front fences to these patios will be 1.4m high slat fencing. All other dwellings will have rear back yards, that will be fully screened with 1.8m high solid fencing.
- Units 1-3 will have external access to the rear outdoor living areas via a shared secondary access path, allowing for bicycles to be wheeled into the outdoor living areas for storage. Units 2,3 and 4 have vertical bicycle storage hooks, while Unit 1 has sufficient space in the rear yard for bicycle storage as needed. Units 5-8 include vertical bicycle storage within the front yards. Units 9-12 include rear or side yard bicycle storage space with access to the outdoor living area via the internal spaces for Units 10 and 11.
- 10 carparks are proposed to the twelve unit development, and the site is located within 300m of the nearest bus stops and 800m of Woburn Train Station, aiding in providing for the transport needs of future residents.
- A stormwater detention system will be located below the shared driveway, so will not be visible within the development.



Image shows a typical fold-down clothesline.



Image shows a typical vertical bicycle rack.



Image shows an example of a shared bin area, inset shows proposed fencing typology.



Landscape plan showing proposed services around the site, refer to Appendix D.



Image shows an example of a Cirtex Rainsmart SW Module system under construction, the proposal includes 358 Double Units, to be located below the driveway.

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Render showing the proposed frontage treatment. Render provided by Moore Designs, refer to Appendix B.

CONCLUSION

The proposed development is considered to meet the outcomes sought by the Hutt City Council Urban Design Policies. The proposal takes measures to ensure privacy and amenity are maintained both within the site and to neighbouring properties. The development is considered to provide a higher density of living that will be well integrated into the neighbourhood with familiar building materials, a modest form and an open, welcoming frontage.

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e2 Environmental Ltd
PO Box 31159, Christchurch
www.e2environmental.com

31 July 2025

William Edmonds
C/O Alice Blackwell
Urban Edge Planning
5 Bouverie St,
Lower Hutt
5012

Dear William,

Re: **Compliance with GWRC Proposed Change 1**

The letter below assesses the compliance of the proposed residential development at 85 Ludlam Crescent, Woburn, Lower Hutt (Lot 1 DP 11523) against the Greater Wellington Regional Council Regional Policy Statement and Natural Resources Plan, Proposed Change 1 (PC1).

The existing house on the lot is proposed to be removed and 12 new residential dwellings will be constructed.

A breakdown of the approximate areas for the development is provided in Table 1 below. The proposed site layout, landscape plan, permeable areas and landscaped areas are included in **Attachment A**.

Table 1: Developed site areas

Impervious Areas		
Roof Area	553 m²	**583 m²**
Impervious Hardstand Area	30 m²	
Pervious Areas		**776 m²**
Permeable Hardstand	601 m²	
Landscaped Area	175 m²	

Compliance has been assessed as being a permitted activity under Rule WH.R5 – Stormwater (discharge) from new and redeveloped surfaces.

WH.R5(a) – Complies – The total new impervious area is 583 m² (as outlined in Table 1 above). Therefore, the proposed impermeable surfaces (new buildings, driveway, hardstand and landscaping areas) are < 1,000 m2 achieving compliance with WH.R5(a).

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WH.R5(b) – Complies **-** Building materials will be controlled to avoid exposed zinc (including galvanised steel) or copper, roof, cladding and spouting materials achieving compliance with WH.R5(b).

WH.R5(c) – Complies **-** Hydrological Control (retention for the average annual event) compliance with WH.R5 (c) will be achieved by collecting for re-use the first 16 mm of rainfall in every storm event (equivalent to retaining all events up to the 2-year, 60 min event on site). Based on this each new lot will require a retention volume of 0.5 m³ to be retained on site.

It is proposed to achieve this through 2 x 250 litre aquacomb pods beneath the deck / house. The house downpipe will connect directly to the retention system. There will be a pump connected to the system, which will be plumbed into the house so that the retention volume can be used for minimum laundry and toilet water usage. A potable water supply top up will be required for these fixtures to cater for extra ordinary use of drought periods.

Once the retention volume is full additional stormwater runoff will flow to a shared private drainage stormwater system with 56 m³ of detention storage within the driveway and a discharge to the public stormwater network. The design assumes that as a result of flooding the below ground tank will not have a free outfall during a storm event. The stormwater detention volume proposed is based on storing the entire increase in stormwater volume for a 1% AEP event with a 20% allowance for climate change. The size of the detention storage system will be confirmed at detailed design through detailed modelling to confirm site hydraulic neutrality.

Stormwater detention is a Hutt City Council requirement and the associated calculations / tank layout etc are covered separately in the HCC consent documentation.

Usage calculations estimate the retention volume will take between 1 and 1.3 days to empty.

Full retention calculations are included in **Attachment B**.

WH.R5(d) – Complies – The discharge is not from, onto or into a SLUR Category III land.

WH.R5(e) – Complies – The discharge will not contain wastewater.

WH.R5(f) – Complies – The discharge is via an existing local authority stormwater network that discharges to an open channel at the end of Nikau Grove before ultimately discharging to Te Awa Kairangi / Hutt River near to where it enters Wellington Harbour. Te Awa Kairangi / Hutt River is identified as a Schedule F1 watercourse.

The Total Suspended Solids within the site runoff has been assessed using average TSS contaminant loading rates for residential land use from TP10, and the NZ Statistics average annual rainfall for Wellington.

The assessment identifies a total TSS generation of between 8.2 and 74.3 kg/year, which equates to between 4.5 and 40.6 g / m3 within the rainfall runoff. This is below the specified target set for the Schedule F1 water course of 50 g/m3. Full calculations are in **Attachment C**.

Leaf divertors or similar will be installed upstream of the stormwater systems and sumps will be included within the car park drainage to collect and treat site stormwater runoff. With the incorporation of these measures it is considered that the proposal will exceed the requirements of WH.R5(f).

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WH.R5(g) – Not applicable – The discharge is via an existing local authority stormwater network.

WH.R5(h) – Not applicable – The discharge is via an existing local authority stormwater network.

Yours sincerely,



Zeean Brydon
Associate Engineer

Ph 022 639 2212
zeean.brydon@e2environmental.com

Attachment A – Proposed Development Plan
Attachment B – Stormwater Retention Calculations
Attachment C – TSS Calculation

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Attachment A – Proposed Site Plan

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1 Site Plan
1:200

GRAPHIC SCALE 1:200[m]
0 2 4 6 8 10

Coverage Calculations
Site area: 1359m²
Allowed: 50% (679.5m²)
Actual: 40.73% (553.65m²)

Site Coverage	
	Area
Block A	172.01
Block B	204.61
Block C	177.03
	553.65 m²

Landscaping Calculations
Site area: 1359m²
Required: 20% (271.8m²)
Achieved: 18.76% (254.99²)

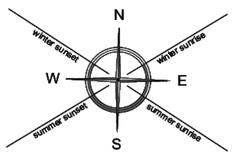
Landscaping Area	
	Area
Landscaping - Along side of unit 9	4.53
Landscaping - between block B & C	26.03
Landscaping - Bewteen unit 12 and parking	2.57
Landscaping - Block A outdoor living planted areas	35.00
Landscaping - Block B outdoor living planted areas	23.01
Landscaping - Block C outdoor living planted areas	32.28
Landscaping - Driveway / Bin storage	2.07
Landscaping - end of parking bay 6	6.20
Landscaping - Next to Unit 12	4.96
Landscaping - Street Frontage	47.68
Landscaping - Tree canopy	70.66
	254.99 m²

Legend

- Tree canopy area
- Landscaping area
- Outdoor Living area

Areas Schedule

Site area (m²)		1,359.00
Coverage	Block A	172.01
	Block B	204.61
	Block C	177.03
		553.65
Floor area	Block A	306.61
	Block B	363.64
	Block C	307.26
		977.51
Coverage		40.7%
FAR		0.72



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as at
2/07/2025
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Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:	RevID	ChID	Change Name	Date
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Site Plan				

MOORE DESIGN

Design: CM	A2 Scale:1:200	SHEET No.	REV No.
Drawn: CP	Date: 2/07/2025	RC02	
Checked: GC	Job No: J1222		

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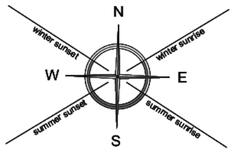

Floor Area Schedule - Block A		
		Area
Ground Floor		
	Unit 1	41.66
	Unit 2	40.80
	Unit 3	38.47
	Unit 4	38.90
		159.83 m²
First Floor		
	Unit 1	38.46
	Unit 2	37.48
	Unit 3	35.08
	Unit 4	35.76
		146.78 m²
		306.61 m²

Floor Area Schedule - Block B		
		Area
Ground Floor		
	Unit 5	50.78
	Unit 6	51.13
	Unit 7	43.35
	Unit 8	42.98
		188.24 m²
First Floor		
	Unit 5	47.14
	Unit 6	47.49
	Unit 7	40.56
	Unit 8	40.21
		175.40 m²
		363.64 m²

Floor Area Schedule - Block C		
		Area
Ground Floor		
	Unit 9	38.27
	Unit 10	38.60
	Unit 11	37.47
	Unit 12	39.66
		154.00 m²
First Floor		
	Unit 9	37.16
	Unit 10	37.56
	Unit 11	38.16
	Unit 12	40.38
		153.26 m²
		307.26 m²

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1 Ground Floor | Floor Plan

1:125

GRAPHIC SCALE 1:125[m]

0 1 2 3 4 5 6 7

This document contains amendments subsequent to the last revision. Further amendments will be made prior to the next issue of document. Not for Construction

Contractor to check dimensions on site prior to fabrication & construction.

Project: **85 Ludlam Crescent** Woburn, Lower Hutt	Client: William Edmonds	Contents: Overall Ground floor plan	RevID	ChID	Change Name / Date

MOORE DESIGN

Design: CM	A2 Scale:1:125	SHEET No.	REV No.
Drawn: CP	Date: 2/07/2025	**RC04**	
Checked: GC	Job No: J1222		

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2:34 pm 2/07/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Resource Consents/J1222 - 85 Ludlam Crescent - RC - 29.05.2025

SURFACES AND PLANTING PLAN



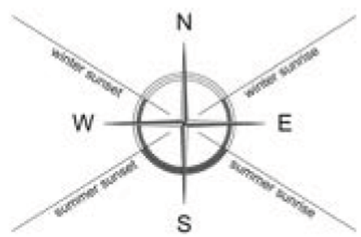
- A1 Surface A1 - Pemeable concrete, colour 1
- A2 Surface A2 - Pemeable concrete, colour 2
- B Surface B - Feature paving
- C Surface C - Loose pavers in groundcovers
- D1 Surface D1 - Permeable pavers, colour 1
- D2 Surface D2 - Permeable pavers, colour 2
- E Surface E - Low timber deck/stairs

- 1 Plant mix 1 - Small shrubs - sun
- 2 Plant mix 2 - Small shrubs - shade
- 3 Plant mix 3 - Mid shrubs
- 4 Plant mix 4 - Hedging
- 5 Plant mix 5 - Groundcovers

Existing palm trees (to retain)

Small trees

Feature trees/transplanted nikau palm from on site.



Project Number: 24315 Drawing Name: Surfaces and Planting Plan Sheet Number: L003	Client: Will Edmunds Project Name: 85 Ludlam Crescent, Lower Hutt Designer: Eve McLachlan- Urban Edge Planning	Status: For Comment Stage: Resource Consent Issue Date: 21/07/2025	N Scale: 1:200 URBANEDGE PLANNING LTD

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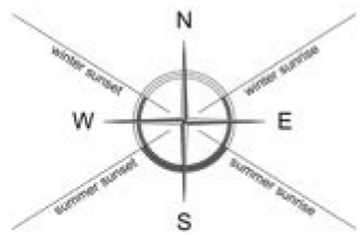
LANDSCAPE AREAS PLAN



	Landscaped area		
	Area	Landscaped area	Percentage
Site	1,359m²	175m²	13%

Lot	Area	Landscaped area	Percentage
1	99m²	27m²	30%
2	69m²	8m²	12%
3	64m²	8m²	13%
4	79m²	15m²	18%
5	80m²	6m²	8%
6	73m²	2m²	3%
7	64m²	2m²	3%

Lot	Area	Landscaped area	Percentage
8	71m²	6m²	8%
9	77m²	9m²	14%
10	61m²	10m²	16%
11	59m²	6m²	10%
12	81m²	11m²	20%
ROW	483m²	51m²	11%



Project Number: 24315
Drawing Name: Landscaped Areas Plan
Sheet Number: L005

Client: Will Edmunds
Project Name: 85 Ludlam Crescent, Lower Hutt
Designer: Eve McLachlan- Urban Edge Planning

Status: For Comment
Stage: Resource Consent
Issue Date: 21/07/2025

N Scale: 1:200

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PERMEABLE SURFACES PLAN



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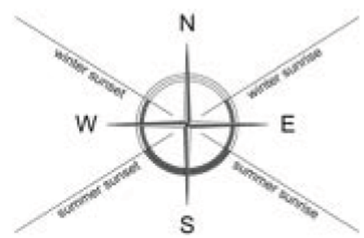
	Permeable surfaces		
	Area	Permeable area	Percentage
Site	1,359m²	776m²	60%

Lot	Area	Permeable area	Percentage
1	99m²	45m²	45%
2	69m²	23m²	33%
3	64m²	21m²	33%
4	79m²	24m²	30%
5	80m²	23m²	30%
6	73m²	17m²	23%
7	64m²	15m²	23%

Lot	Area	Permeable area	Percentage
8	71m²	23m²	32%
9	77m²	31m²	40%
10	61m²	18m²	30%
11	59m²	18m²	30%
12	81m²	33m²	41%
ROW	483m²	483m²	100%



Project Number: 24315
Drawing Name: Permeable Surfaces Plan
Sheet Number: L006

Client: Will Edmunds
Project Name: 85 Ludlam Crescent, Lower Hutt
Designer: Eve McLachlan- Urban Edge Planning

Status: For Comment
Stage: Resource Consent
Issue Date: 21/07/2025

N Scale: 1:200

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Attachment B – Stormwater Retention Calculations

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Retention Volume Calculator

For design of appropriate hydrological controls to achieve permitted activity outcomes under GWRC PC1 stormwater discharge rules.

PROJECT DETAILS

Description:	GWRC PC1	**Project Number:**	25018
Client:	William Edmonds	**Assessed by:**	A Brown
Site:	85 Ludlam Cres	**Reviewed by:**	
Coordinates:		**Date:**	21/07/2025

Site Parameters

Total site area	1359	m^2	Total Site Area
Number of proposed lots	12		12 Lots / Units

Pre-construction site areas

Existing Roof Area	0	m^2	*If existing buildings / impervious areas are demolished in site development, then the pre-development scneario must be assumed to be Greenfield under PC1*
Existing Hardstand Area	0	m^2	
Existing Green / Pervious Area	1359	m^2	

Post-construction site areas

Developed Roof Area	553	m^2	Lots 1 to 12
Developed Hardstand Area	30	m^2	
Developed Green / Pervious Area	776	m^2	Includes pervious hardstand areas
Developed Impervious Area	583	m^2	*PC1 PA requires less than 1,000 m^2* — Complies <1000m^2

Control Data

Rainfall depth	16	mm	*50% AEP, 1 hour storm for current climate*
Soil Drainage	Imperfectly Drained		
Pervious Area Runoff Coefficient	0.3		

Weighted Volumentric Runoff Coefficients

Pre-construction Runoff Coefficent	0.30	
Post-construction Runoff Coefficient	0.58	

Retention Volume Calculation

Pre-construction Runoff Volume	6.5	m^3	
Post-construction Runoff Volume	12.6	m^3	
Total Retention Volume Required	6.0	m^3	Volume if retention is put on 1 lot
Retention Volume Required Per Lot	**0.5**	m^3	*Split over 12 lots* — Volume if split over 12 Lots

Time to Empty

Time to Empty in Summer	1.0	days
Time to Empty in Winter	1.3	days

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Household Water Re-use

For design of appropriate hydrological controls to achieve permitted activity outcomes under GWRC stormwater discharge rules. Estimates the approximate volume of water able to be re-used in a 24-hour period for the development.

PROJECT DETAILS

Description:	GWRC PC1	**Project Number:**	25018
Client:	William Edmonds	**Assessed by:**	A Brown
Site:	85 Ludlam Crescent	**Reviewed by:**	
Coordinates:		**Date:**	23/07/2025

Site Parameters

Development Occupancy Using Table 5-1 of WWL RSWS

Council	HCC
Population per dwelling	3.5
Number of dwellings	12
Estimated Occupancy	**42**

Estimated Household Water Use Per Person Per Day

	Winter	Summer
Laundry	57	56
Toilet	44	44
Outdoor	14	42
TOTAL	**115**	**142**

Development Re-Use Capacity Per Day (m^3)

	Winter	Summer
WWL RSWS	4.83	5.96

Development Re-Use Capacity Per Day Per Lot (m^3)

	Winter	Summer
WWL RSWS	0.40	0.50

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Attachment C – TSS Calculation

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TSS Generation

PROJECT DETAILS

Description:	GWRC PC1	**Project Number:**	25018
Client:	William Edmonds	**Assessed by:**	Z Brydon
Site:	85 Ludlam Crescent	**Reviewed by:**	
Coordinates:		**Date:**	23/07/2025

TP10	kg/ha/yr	Range		
residential (low)	60-340	60	lower	kg/ha/yr
residential (high)	97 - 547	547	higher	kg/ha/yr

site area	1359	m^2		
area (ha)	0.1359	ha		
Range	8.2	kg/yr	8154	g/year
	74.3	kg/yr	74337	g/year
Yearly	1346	mm/year	1.346	m/year
Runoff volume	1829.2	m^3/year		
Range	4.5	to	40.6	g/m^3

Complies with NRP PC1 Rule WH.R5 (f) (i) of 50g/m^3 max

Table 4-4
Contaminant loading ranges for various land uses
Figures are in kg/ha/yr except for FC (no./ha/yr)

Land use	TSS	TP	TN	Pb (median)	Zn	Cu	FC	COD
Road	281-723	.59-1.5	1.3-3.5	.49-1.1	.18-.45	.03-.09	1.8E+08	112-289
Commercial	242-1369	.69-.91	1.6-8.8	1.6-4.7	1.7-4.9	1.1-3.2	5.6E+09	306-1728
Residential (low)	60-340	.46-.64	3.3-4.7	.03-.09	.07-.20	.09-.27	9.3E+09	NA
Residential (high)	97-547	.54-.76	4.0-5.6	.05-.15	.11-.33	.15-.45	1.5E+10	NA
Terraced	133-755	.59-.81	4.7-6.6	.35-1.05	.17-.51	.17-.34	2.1E+10	100-566
Bush	26-146	.10-.13	1.1-2.8	.01-.03	.01-.03	.02-.03	4.0E+09	NA
Grass	80-588	.01-.25	1.2-7.1	.03-.10	.02-.17	.02-.04	1.6E+10	NA
Pasture	103-588	.01-.25	1.2-7.1	.004-.015	.02-.17	.02-.04	1.6E+10	NA

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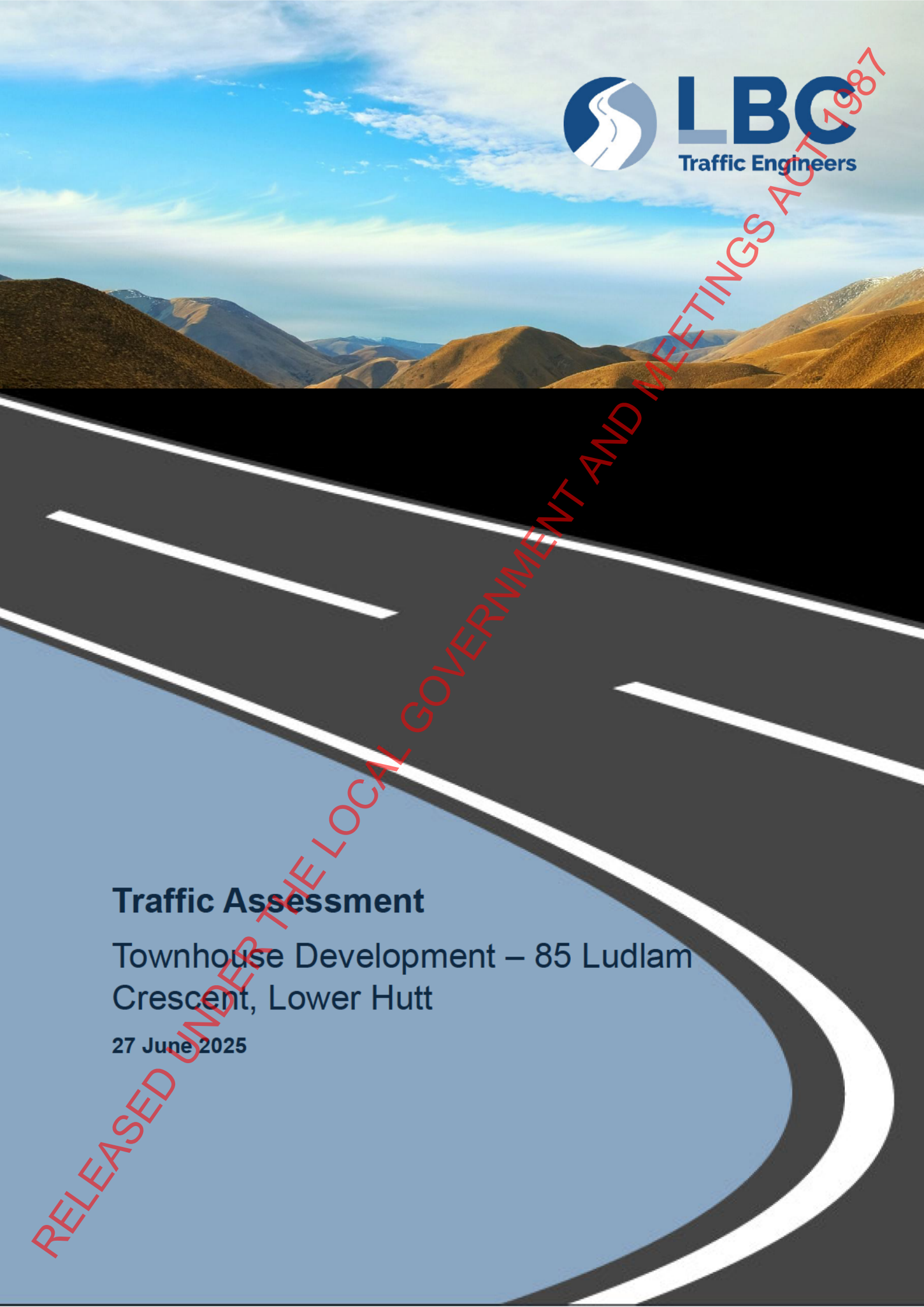

LBC Traffic Engineers

Traffic Assessment

Townhouse Development – 85 Ludlam Crescent, Lower Hutt

27 June 2025

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Document Control

Report Name	Traffic Assessment
Project Name	Proposed Townhouse Development – 85 Ludlam Crescent, Lower Hutt
Document Status	Final For Issue

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Revision No.	Date	Prepared By	Reviewed By	Approved for Issue By
1.0	27/06/2025	Luke Benner	N/A	Luke Benner

Issue Register

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Alice Blackwell – Urban Edge Planning Ltd	27/06/25	1

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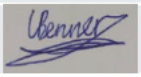
Signature	Luke Benner, NZDE (Civil) 

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Table of Contents

1 Introduction 1
2 Site Location 1
3 Existing Road Network 1
3.1 Ludlam Crescent 2
3.2 Penrose Street 2
3.3 Traffic Volumes 3
4 Road Safety 3
4.1 Walking and Cycling Provision 4
4.2 Public Transport Provision 4
5 Development Proposal 4
6 District Plan Compliance 5
7 Assessment of Effects 8
7.1 Traffic Generation and Distribution Effects 8
7.2 Non-Compliance Effects (Standards 2B & 2C) 9
8 Conclusion 10

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1 Introduction

This Traffic Assessment has been prepared to consider and assess the transportation effects of a proposed townhouse development at 85 Ludlam Crescent in Lower Hutt.

This report considers the existing transport environment, including nearby roads and intersections as well as traffic volumes, road safety and sustainable transport options. The report then goes on to consider the proposed townhouse development including its internal access and parking layout, followed by a review of the development against the relevant transport provisions of the operative district plan. An assessment of traffic effects has also

By way of summary, it is concluded that the traffic activity of the proposed development fits in well with the local transportation and roading environment and can be developed to provide logical access and connectivity for a range of travel modes, from cars to pedestrians.

2 Site Location

The development site is located at 85 Ludlam Crescent in Lower Hutt and is rectangular in shape with a wide frontage to the street. The site contains a single vehicle crossing adjacent to the northern boundary with a single residential dwelling which will be removed. .



Figure 1: Site Location (85 Ludlam Crescent).

3 Existing Road Network

The function of roads in the vicinity of the site is covered by the Lower Hutt City District Plan: Appendix Transport 3 – Transport Network Hierarchy. Roads in the immediate vicinity of the site are identified below, along with the relevant district plan roading hierarchy classification:

- Ludlam Crescent, to which the site has primary connections – Arterial Road.
- Penrose Street, Primary Collector Road.

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3.1 Ludlam Crescent

Ludlam Crescent is classified as an arterial road and provides an access and through route function north-south between the Lower Hutt CBD and the suburbs to the south including Moera and onwards to Seaview.

Ludlam Crescent provides for two lanes of traffic with intermittent areas of kerbside parking provided along its length. The carriageway has a width of 15m which is sufficient for traffic lanes, turning bays in the median and wide shoulders. Footpaths are present along the sides of the road, typically around 2.5m wide, catering to pedestrian movement and ensuring connectivity to the surrounding area. The road's design accommodates higher traffic volumes compared to nearby local or collector streets.



Figure 2: Typical Cross Section of Ludlam Street facing southeast.

3.2 Penrose Street

Penrose Street is classified as a primary collector road and carries moderate traffic volumes and facilitates access to local streets and nearby amenities. The typical layout of the road is shown in figure 3.

Penrose Street provides for two-lanes of traffic road with parking available on both sides. The carriageway has a width of approximately 10m, ensuring sufficient space for vehicle movement and parking. Footpaths run along both sides of the road, typically around 1.8m wide, promoting pedestrian safety and connectivity.



Figure 3: Typical Cross Section of Penrose Street facing north.

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3.3 Traffic Volumes

Hutt City Council regularly monitors traffic volumes across its transport network. The volumes from Mobile Roads of nearby roads are listed below:

- Ludlam Crescent within the vicinity of the development site has an annual daily traffic volume (ADT) of 8,885 vehicles per day (vpd) with around 4% estimated to be HCVs.
- Penrose Street - 4,098vpd with 4% HCVs.

4 Road Safety

The New Zealand Transport Agency's Crash Analysis System (CAS) has been used to review road safety performance near the development site, for the latest full five-year period. Figure 4 shows the reported crashes within the search area (i.e. within 100m of the proposed site).

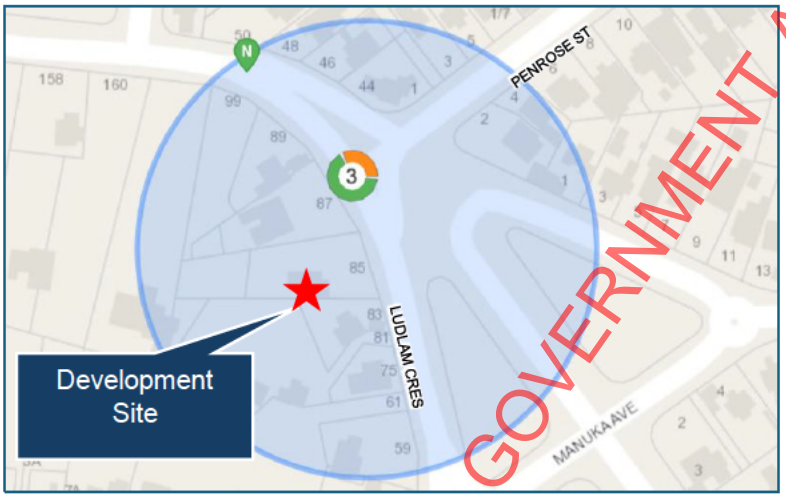

Figure 4: Reported crashes near the development site.

Error! Reference source not found. below details there have been 4 reported crashes within t he search area, including one causing serious injuries, and the remaining three resulting in no injuries. Of the four crashes, two were attributed to drivers failing to give way while the other two were rear end type crashes. In reviewing the crash reports, it appears that each of the crashes were caused at least in part by human factors as opposed to any deficiencies within the road environment itself.

Crash Year	Severity	Description
2021	Serious-Injury	Car turning right from Ludlam Cres to Penrose St failed to give way to an unregistered motorcyclist travelling southbound along Ludlam Cres. The motorcycle did not have any headlights which meant it was not easily visible. The motorcyclist tested over the alcohol limit.
2024	Non-Injury	Van eastbound on Ludlam Cres rear ended an SUV which was stopped or moving slowly. Lack of following distance was noted as a factor.
2020	Non-injury	Vehicle 1 was turning right in to Penrose St after it was waved through by Vehicle 2 stopped to let Vehicle 1 through. Vehicle 2 was undertaken by a motorcyclist who was hit by Vehicle 1 as they turned right. Vehicle 1 failed to give way.

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2021	Non-Injury	A vehicle rear ended another vehicle waiting to turn onto Ludlam Crescent. Inattention was noted as a factor.

Table 1 – Reported crashes over the past 5 years.

4.1 Walking and Cycling Provision

There is an established pedestrian network within the immediate vicinity of the site, with public footpaths available along all existing roads in the area. There is no dedicated provision for cyclists on the immediate road network, with these road users required to share with vehicle traffic. There is however some wide shoulders where parking is not permitted that cyclists can utilise.

4.2 Public Transport Provision

Public transport options near the site offer convenient connections for residents. Metlink bus services provide regular and reliable access to key destinations. Bus route 83 connects Eastbourne to Courtenay Place, operating at intervals of 15 to 30 minutes, while the bus route 130 links Petone and Naenae with similar frequency. Bus stops for these routes are conveniently located approximately 300 meters west and south of the site along Ludlam Crescent.

For regional connectivity, Woburn Railway Station is situated just 500 meters north of the site. This station is part of the Hutt Valley Line, which serves Lower Hutt and connects Wairarapa to Wellington. Train services operate at 30-minute intervals, with increased frequency during peak hours.

5 Development Proposal

The proposed development will comprise 12 new townhouse units and 10 off street parking spaces which have been designed in general alignment with what the district plan requires. Vehicle access to the site is proposed via a new double width vehicle crossing positioned adjacent to the site's northern boundary with this designed to facilitate two-way movement for light vehicles as well as provide sufficient width for a rubbish truck to reverse into the site.

Pedestrian access will be provided from Ludlam Crescent through site, with footpaths to be flush with the vehicle parking and circulation areas but of a contrasting colour or material such that they can be driven over by vehicles as and when required while also serving their purpose as a space for pedestrian use.

The site will contain on onsite communal bin storage area located next to the onsite parallel parking space. As the smallest waste collection available locally is an 8m truck, it is not possible for this sized vehicle to turn around within the site, therefore it is proposed that reversing into the site is facilitated with the truck to sit within the site for loading.

Vehicle tracking for the site layout including rubbish truck tracking in from the street is provided as attachment 1.

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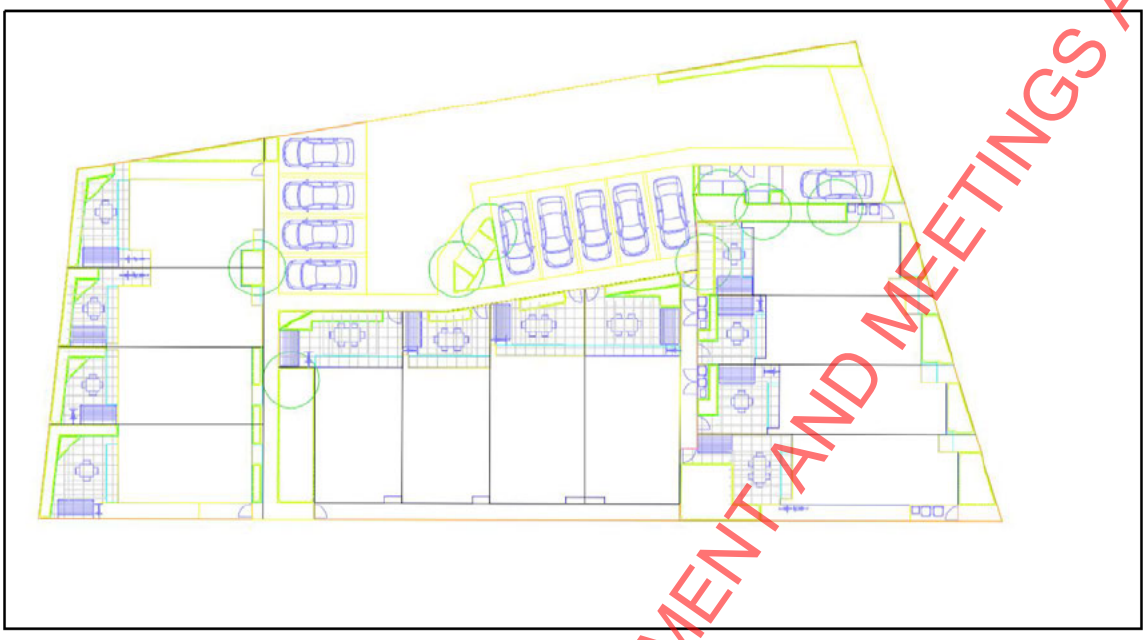

Figure 5 – Proposed Site Layout.

6 District Plan Compliance

The proposed development is located within Lower Hutt City, therefore it is required to comply with the transport provisions the District Plan. This section confirms areas of compliance or non-compliance.

Standard 1 – Standards for New Roads	Proposed	Compliance
1b. Engineering Standards All roads must be designed and constructed in accordance with NZS 4404:2010 Land Development and Subdivision Infrastructure.	A private way is proposed as part of this development and has been designed accordingly.	Complies
1c. Service Lanes, Private Ways, Pedestrian Accessways and Walkways Service lanes, private ways, pedestrian accessways and walkways must be designed and constructed in accordance with Section 3 of NZS 4404:2010 Land Development and Subdivision Engineering, except that Table 2-1 replaces the formation requirements for private ways detailed in NZS 4404.	A private way is proposed as part of this development however; 12 dwellings are proposed which does not allow assessment against Table 2-1 as this only caters to developments with up to 10 dwellings. On this basis, the assessment has been completed against NZS 4404. All the requirements for a suburban lane serving up to 20 dwellings are met.	Complies

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Standard 2 – Site Access and Manoeuvring Area	Proposed	Compliance
2a. Vehicle Access (excluding separation distances from intersections).		
- No more than two separate crossings for any front site.	One vehicle crossing is proposed along the frontage.	Complies
- The width of such crossings must not exceed 50% of the road frontage.	The width of this crossing (total 5.5m) does not exceed 50% of the site frontage (30.7m).	Complies
- There must be a separation distance of at least 1 metre between crossings measured at the kerb/carriageway edge.	There is at least 1m between crossings.	Complies
- Site access must be designed and constructed in accordance with section 3 of AS/NZS2890.1:2004 Parking Facilities: Off-streetcar parking.	Design requirements of AS/NZS2890.1: **3.2.1 - Access driveway widths** As per Table 3.1, Class of parking facility is 1, arterial frontage road means this is access facility category 1. Access category 1 is permitted an entry width of 3m to 5.5m. Proposed entry width of 5.5m meets the requirement.	Complies
	3.2.2 - Width requirements at low volume (Category 1) access driveways and connecting roadways The proposed access driveway and the circulation roadway have a minimum width of 5.5m for the first 6m from the property boundary.	Complies
	3.2.3 - Access driveway location The proposed driveway is in the permitted area.	Complies
	3.2.4 Sight distance at access driveway exits A minimum SSD of 45m is required as this is a 50km/h road. The driveway meets this requirement.	Complies

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	The minimum sight line for pedestrian safety is met in both directions.	
	3.3 Gradients of driveways All gradient requirements would be met given the area is generally flat.	Complies
	3.4 Queuing Areas Space for two vehicles to queue is required and this will be met by the proposed layout.	Complies
Where vehicle access serves three or more dwellings, it must have a minimum width of 4 metres to allow for fire service vehicles.	The vehicle access proposed has a width of 5.5m +	Complies
2b. Separation Distances from Intersections and Rail Level Crossings The distance between new vehicle accesses and all intersections must be at least: Arterial or Primary Collector: 20m These distances are to be measured between the intersecting points of the site boundaries as shown in Diagram 2-1, and also apply to new vehicle accesses on the opposite side of the road from an intersection.	The proposed access driveway is within 20m of Penrose St intersection.	Does not Comply (See section 7.1)
2c. Manoeuvring Area. - Sufficient area must be provided for vehicles to stand, queue and make all necessary manoeuvres without using the public road reserve, and without using the area provided for parking, servicing, loading or storage purposes. Sufficient area must be provided to allow vehicles to enter and exit the site in a forward direction except where the access is to a single dwelling and accesses an Access, Secondary Collector or Primary Collector Road.	All vehicles will be able to enter the site and undertake all manoeuvres within the site and be able to exit in a forward direction. This is demonstrated by the vehicle tracking completed (Appendix 2) in/out of each parking space and through the drive through area. Loading is proposed outside of peak periods. A refuse collection truck will need to reverse into the site from the road such that it can exit in a forward direction.	Does Not Comply (See section 7.2)

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Standard 4 –Car & Cycle parking and End of Trip Facilities	Proposed	Compliance
4b. Off-street car parking for people with disabilities. Off street parking for people with disabilities must be provided in accordance with section 5 of NZS 4121:2004 Design for Access and Mobility – Buildings and Associated Facilities.	**5.2 Location** No off street accessible parking space is proposed given this is a residential development.	N/A
4d. Car Parking Design Standards - Car parking spaces and facilities must comply with the requirements of AS/NZS 2890.1: 2004 Parking facilities Part 1: Off-street car parking.	10 off street parking spaces are proposed onsite. These have been designed to meet the requirements for user class 1A 90 degree angle parking spaces i.e. 2.4m width, 5m length and 5.8m aisle width. The parallel parking space has also been designed in accordance with AS/NZS2890.1 designed as per the requirement	Complies
4e. Cycle Parking and End of Trip Facility Requirements - For all activities in new buildings and developments (including the redevelopment of existing buildings), cycle parking and showers must be provided in accordance with the minimums stated in Tables 4-2.	No cycle parking or showers are required as there are no staff on site.	Complies

Table 2 – District Plan Compliance Table.

7 Assessment of Effects

This section of the report provides an assessment of transport effects with regard to the proposed townhouse development, covering expected traffic generation and trip distribution as well as addressing the areas of identified district plan non-compliance.

7.1 Traffic Generation and Distribution Effects

The trip rates of NZTA's Research Report 453 have been utilised in assessing the likely traffic generation rates of the proposed development. Table 8.10 of this research report states that medium density residential flats can generate up to 6.8 vehicle movements per day and 0.8 vehicle movements in the peak hours. On this basis the proposed 12-unit townhouse development can be expected to generate a daily total of 82 vehicle movements and 10 vehicle movements during peak hours. To put this into context this would represent an increase in traffic volumes of less than 1% onto Ludlam Crescent and during peak hours 1 vehicle entering or exiting the site around every 6 minutes.

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Given the location of the development to public transport options (bus and rail within 500m), it is reasonable to expect that some trips will not be made by vehicle, particularly for those future residents who are commuting into Wellington City for example.

In terms of trip distribution, it can be expected that most trips will be to and from Lower Hutt central, where the CBD is within closer proximity of the site than driving to Petone for example for things like shopping etc. For those residents commuting by vehicle into Wellington City it is reasonable to expect that some people will travel south towards Seaview and then use The Esplanade while others will travel towards central Lower Hutt and onwards to Railway Ave etc.

It is evident that the proposed development will generate relatively few traffic movements within the context of the existing transport environment, where the effects of additional vehicle trips are likely to be un-noticeable. It is therefore assessed that any resultant effects will be less than minor.

7.2 Non-Compliance Effects (Standards 2B & 2C)

Under the district plan, standard 2B requires that 20 metres of separation distance is achieved between new vehicle accesses and intersections on arterial roads. The vehicle crossing will be located within this distance of the Penrose Street intersection and will therefore result in a non-compliance being triggered.

Under standard 2C there is a requirement that sufficient space is provided on site for vehicles to stand, queue and make all movements without using the public road reserve and that enough space is provided to ensure that vehicles can enter and exit the site in a forward's direction at all times. A non-compliance is triggered under this rule where rubbish trucks will need to reverse into the site for the loading of bins.

While these non-compliances are noted, any resultant effects are assessed as being acceptable for the following reasons.

1. While the vehicle crossing to the site will be upgraded it will remain in the same position as the existing vehicle crossing with there being no evidence of any resultant road safety concerns.
2. Turning movements to and from the upgraded vehicle crossing will be sufficiently offset from the Penrose St intersection, such that there will be no conflict in turning movements.
3. Kerbside parking is prohibited along the kerb line fronting the development site, ensuring excellent visibility is achieved in each direction for vehicles exiting the site.
4. Rubbish trucks will be able to pull over into the road shoulder before commencing the reversing manoeuvre (as demonstrated in attachment 1) into the site and be visible to other vehicles approaching from the south for at least ~100m providing sufficient time for a driver to react.
5. The presence of rubbish trucks within the road shoulder is already a common occurrence on Ludlam Crescent due to existing kerbside rubbish collection.
6. Rubbish collection will occur outside of peak periods
7. Rubbish truck reversing in off the street has been accepted for other higher yielding developments on High Street and Waterloo Road with similar operational characteristics.

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8 Conclusion

This Traffic Assessment has assessed the transportation effects of the proposed Townhouse development at 85 Ludlam Crescent.

The report has considered the existing transport environment near the site as well as the proposed townhouse development including alignment to the relevant provisions of the district plan, followed by an assessment of transport effects covering traffic generation, trip distribution and addressing two areas of district plan non-compliance.

Based on the assessment undertaken it has been concluded that the traffic effects resulting from the development will not be less than minor. As such it is considered there are no transportation reasons as to why the resource consent cannot be granted, and no mitigations of effects is required.

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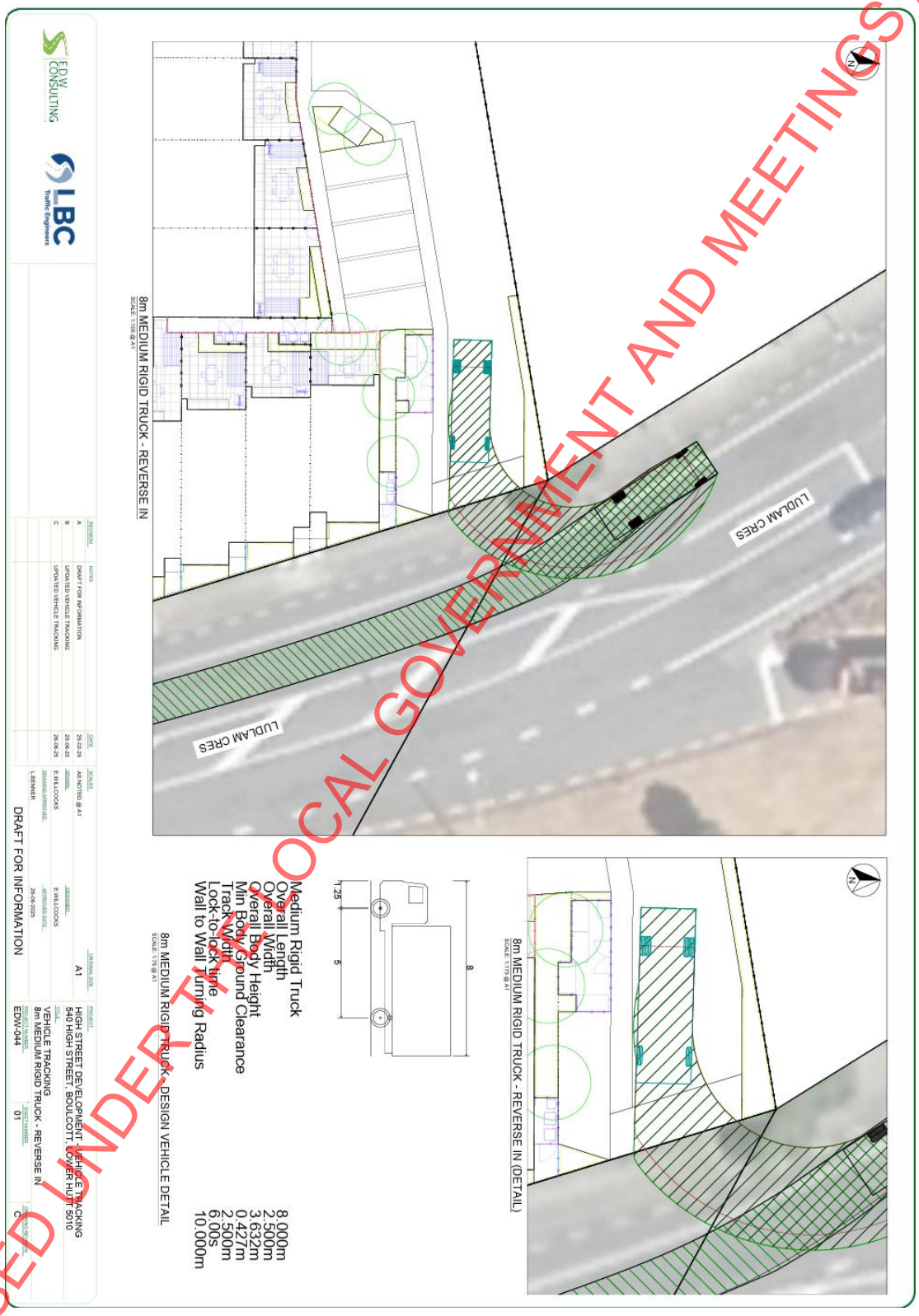
Attachment 1 – Vehicle Tracking Drawings



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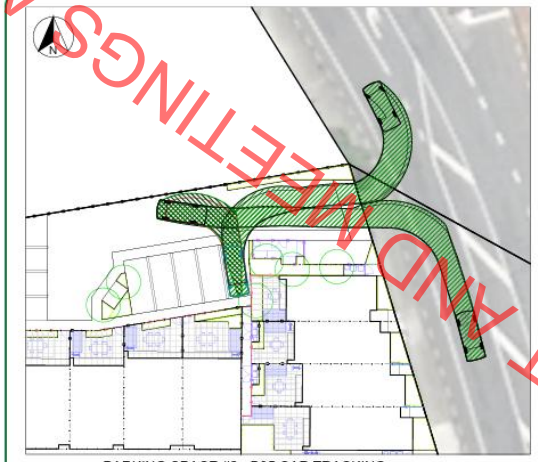
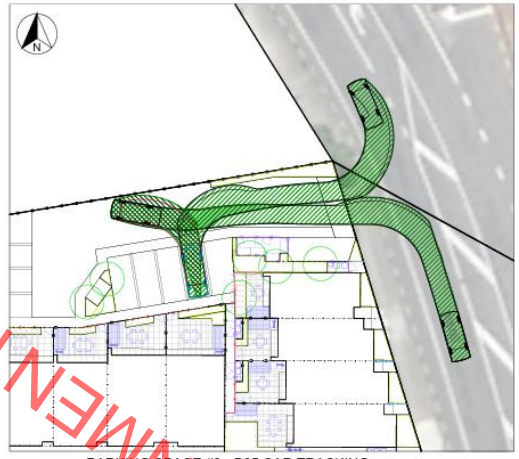


PARKING SPACE #2 - B85 CAR TRACKING
SCALE: 1:200 @ A1



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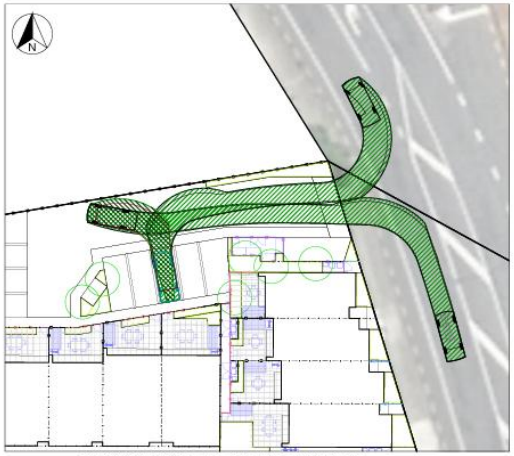

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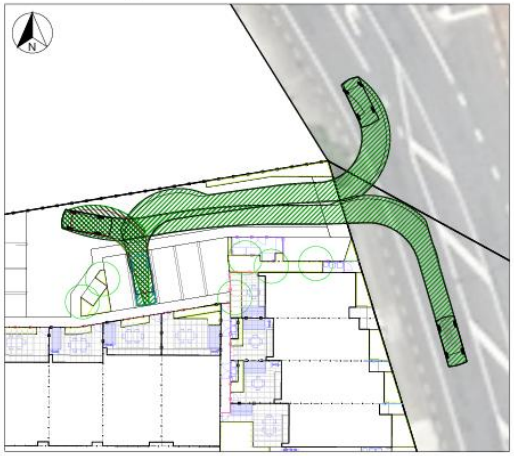

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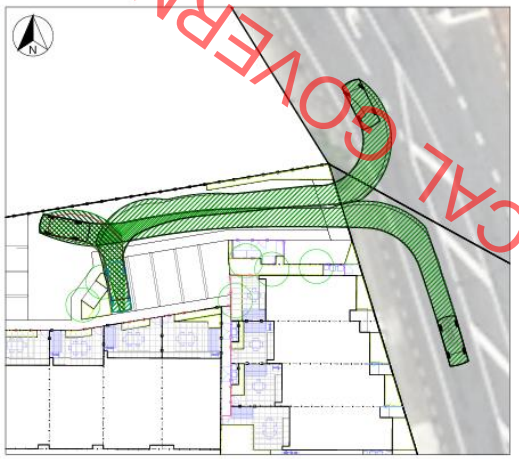

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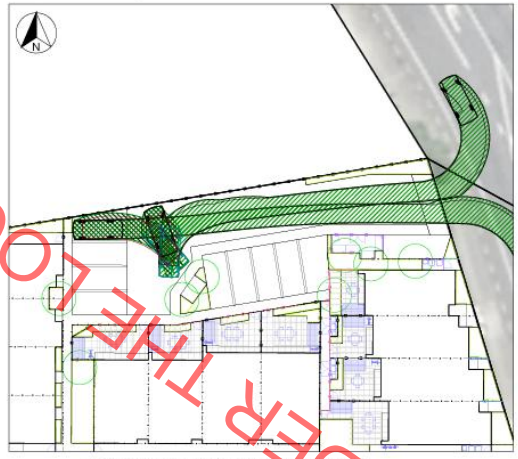

PARKING SPACE #7 - B85 CAR TRACKING
SCALE: 1:200 @ A1

E.D.W CONSULTING

LBC Traffic Engineers

REVISION	NOTES	DATE
A	DRAFT FOR INFORMATION	25-02-25
B	UPDATED VEHICLE TRACKING	25-06-25
C	UPDATED VEHICLE TRACKING	26-06-25

SCALES: 1:200 @ A1
ORIGINAL SIZE: A1
DRAWN: E.WILLCOCKS
DESIGNED: E.WILLCOCKS
DRAWING APPROVED: L.BENNER
APPROVED DATE: 26-06-2025

DRAFT FOR INFORMATION

PROJECT: HIGH STREET DEVELOPMENT - VEHICLE TRACKING
540 HIGH STREET, BOULCOTT, LOWER HUTT 5010

TITLE: VEHICLE TRACKING
PARKING SPACES 2-7 - B85 TRACKING

PROJECT NUMBER	SHEET NUMBER	DRAWING REVISION
EDW-044	02	C

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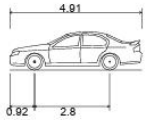
PARKING SPACE #8 - B85 CAR TRACKING
SCALE: 1:200 @ A1



PARKING SPACE #9 - B85 CAR TRACKING
SCALE: 1:200 @ A1



PARKING SPACE #10 - B85 CAR TRACKING
SCALE: 1:200 @ A1



B85 Vehicle (Realistic min radius) (2004)	
Overall Length	4.910m
Overall Width	1.870m
Overall Body Height	1.421m
Min Body Ground Clearance	0.159m
Track Width	1.770m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.750m

B85 CAR - DESIGN VEHICLE DETAIL
SCALE: 1:75 @ A1

EDW CONSULTING

LBC Traffic Engineers

REVISION	NOTES	DATE
A	DRAFT FOR INFORMATION	25-02-25
B	UPDATED VEHICLE TRACKING	25-06-25
C	UPDATED VEHICLE TRACKING	26-06-25

SCALES: 1:200 @ A1 — ORIGINAL SIZE: A1
DRAWN: E.WILLCOCKS — DESIGNED: E.WILLCOCKS
DRAWING APPROVED: L.BENNER — APPROVED DATE: 26-06-2025

DRAFT FOR INFORMATION

PROJECT: HIGH STREET DEVELOPMENT - VEHICLE TRACKING
540 HIGH STREET, BOULCOTT, LOWER HUTT 5010

TITLE: VEHICLE TRACKING
PARKING SPACES 8-10 - B85 TRACKING

PROJECT NUMBER: EDW-044 — SHEET NUMBER: 03 — DRAWING REVISION: C

Tree Assessment and Tree Protection Management Plan, 85 Ludlum Crescent, Lower Hutt

Date: 27 June 2025

Prepared by: Joshua Symes
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s7(2)(a)

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s7(2)(a)

Client Contact: William Edmonds
s7(2)(a)

Brief: Carry out a site visit and inspect the trees identified for possible retention within the construction site. Determine the condition of the trees and provide a methodology for their retention and protection where possible.

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Table of Contents

1. Introduction 3
2. Qualifications and Experience 3
3. Methodology and Limitations 3
4. Site Detail 3
5. Proposal 4
6. Arboricultural Concepts 6
7. Tree Information 7
8. Tree Information 8
9. Arboricultural Assessment 9
10. Conclusion 10
11. Recommendations 10
12. Tree Protection Management Plan 14
13. Tree Protection Measures 16
14. Appendices 18

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1. Introduction

1.1. Tend Tree Consultancy Limited has been engaged by William Edmonds to inspect nine trees at 85 Ludlum Crescent, Lower Hutt. The site is to be redeveloped and as part of the project the client has identified nine trees that are desirable to retain as part of the redevelopment works where possible. The inspection assessed the condition of the trees and calculated their root zones in preparation for the provision of a Tree Protection Management Plan for proposed construction activities. Recommendations are provided on how to protect trees that can be retained from construction activities.

2. Qualifications and Experience

2.1. I have been an arborist for 12 years, two years as Tree Manager for Wellington City Council and two years as a consulting arborist, and hold the following qualifications:

- NZQA Level 4 Advanced Arboriculture
- Quantified Tree Risk Assessment (QTRA – Advanced User)
- VALID Tree Risk Assessment
- ISA's Tree Risk Assessment Qualification (TRAQ)
- BSc in Geography and Environmental Science.

3. Methodology and Limitations

3.1. The trees were inspected using the Visual Tree Assessment (VTA) method from ground level only.

3.2. Tree height and canopy spread was estimated using the surveyor's experience. Trunk girth and other measurements were made using conventional measuring tapes.

3.3. The root zone calculations and tree protection methodology are based on the Australian Standard (AS 4970 - 2009 Protection of Trees on Development Sites).

3.4. The assessment is based on the plans and information provided. Any changes or updates may require further investigation and assessment.

3.5. This report and Tree Protection Management Plan (TPMP) pertains only to the trees assessed at the site.

4. Site Detail

4.1. The trees are all located in within the residential premises of 85 Ludlum Crescent, Lower Hutt. The site comprises of a residential dwelling, a number of outbuildings and a large garden area to the north, east and west of the dwelling.

4.2. The site where the trees are located has a mix of different rooting environments. Some of the trees are situated next to existing hard surfacing including brick footpaths and concrete foundations whilst some are located in open lawn areas.

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4.3. The site is flat in nature and is located in a residential zone of the Woburn suburb in Lower Hutt. The property is bounded to the north, west and south by residential properties and to the east by Ludlum Crescent roadway and associated pedestrian footpath.

4.4. A review of the Lower Hutt City Council (LHCC) District Plan showed that there are no protected trees located at this address.

4.5. The aerial image, **Figure 1**, shows the trees identified for assessment and main site features.



Figure 1. Site aerial with the trees circled in red.

5. Proposal

5.1. The site at 85 Ludlum Crescent is to undergo works to redevelop the area including the removal of the existing dwelling and establishment of 12 new units with associated off-street parking, services and vehicle access.

5.2. As part of the redevelopment, the majority of the existing vegetation and garden space will be removed, however, nine existing trees have been identified for retention where possible for the projects landscaping.

5.3. There are no trees on site scheduled for protection under the LHCC District Plan

5.4. **Figure 2** below is the site drawing for the proposed redevelopment of the site with trees identified for possible retention included.

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Figure 2. Development Plan for 85 Ludlum Crescent, Lower Hutt. Trees highlighted with red hatching.

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6. Arboricultural Concepts

Likely root spread

6.1. The image in **Figure 3** is indicative of a tree growing in an environment with no restrictions, such as a tree within an open field. The image shows that tree roots are located within the upper portions of the soil and extend far beyond the area commonly referred to as the 'dripline' (the outer limits of the canopy).



Figure 3. Tree Root Zone

6.2. Tree root zones must be protected from any construction activity to avoid unnecessary damage and ensure there are no detrimental effects to the health of trees to be retained.

Tree Protection Zones (TPZ)

6.3. The Tree Protection Zone is the area around the tree that is needed for its long-term continued health and growth.

6.4. The TPZ should be determined by a qualified and experienced arborist and be to an extent that is sufficient to protect its roots, trunk and branches. The extent of the TPZ should take account of anything that may modify the tree's rooting environment such as infrastructure, roads, buildings or historic activities.

6.5. Activities (both existing and proposed) within the TPZ are assessed to determine the likely effects on the tree's roots and access to soil, which can directly affect the tree's health.

Structural Root Zones (SRZ)

6.6. The Structural Root Zone (SRZ) is a smaller zone which should be protected to ensure the tree maintains its stability.

6.7. This zone generally contains tree roots of a larger diameter (structural roots).

6.8. Damage to these larger diameter roots can lead to catastrophic failure of the tree.

6.9. Works within this area is rare and should only be undertaken under direct supervision and with the upmost care. Any damage to this zone should be reported immediately for assessment by a suitably qualified and experienced arborist.

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6.10. **Figure 4** indicates SRZ and TPZ from a tree growing in an open environment with no restrictions to root growth, and two environments with restricted root growth.

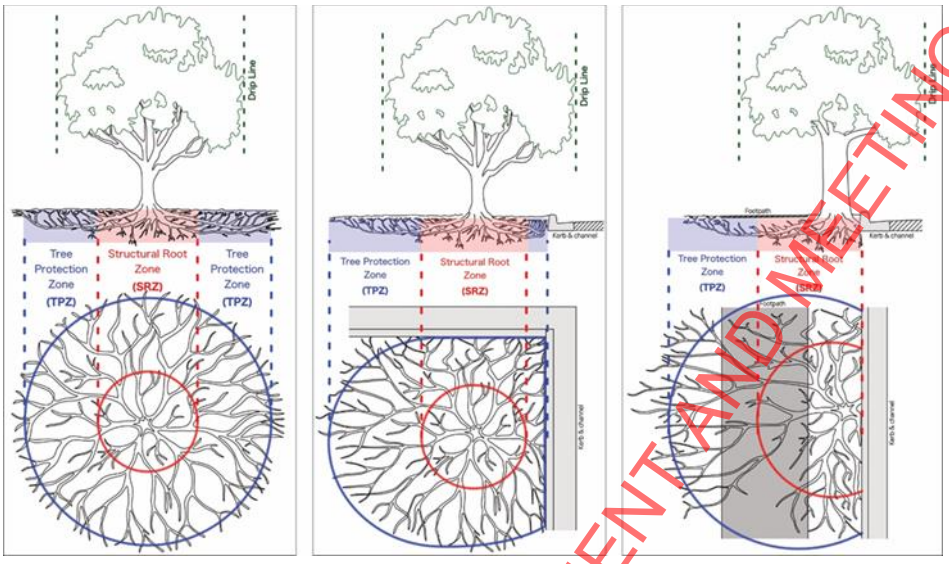

Figure 4: Indicative Tree Protection Zones

7. Tree Information

7.1. The following table is to be used in conjunction with the arboricultural drawing in **Appendix 1**. The number plots in **Appendix 1** drawing correspond to the numbering in **Table 1**.

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8. Tree Information

Table 1. Tree Inventory

Tree Number	Species	Height (m)	CSR (m)	Form	Structure	Health	Age Class	TPZ (m)	TPZ Area (m2)	SRZ (m)	Comments
1	Rhopalostylis sapida	6	3	Good	Good	Good	Mature	2.76	23.93	1.97	Good overall condition. Retain where possible
2	Washingtonia robusta	10	3	Good	Good	Good	Mature	4.09	52.55	2.48	Good overall condition. Retain where possible
3	Rhopalostylis sapida	5	3	Good	Good	Good	Mature	3.1	30.19	2.05	Good overall condition. Retain where possible
4	Rhopalostylis sapida	10	3	Good	Good	Good	Mature	3.14	30.97	2.06	Good overall condition. Retain where possible
5	Rhopalostylis sapida	8	3	Good	Good	Good	Mature	2.8	24.63	2.01	Good overall condition. Unlikely retainable
6	Rhopalostylis sapida	11	3	Good	Good	Good	Mature	2.8	24.63	2	Good overall condition. Unlikely retainable
7	Washingtonia robusta	11	3	Good	Good	Good	Mature	4.09	52.55	2.48	Good overall condition. Unlikely retainable
8	Rhopalostylis sapida	11	3	Good	Good	Good	Mature	2.57	20.75	1.85	Good overall condition. Retain where possible
9	Magnolia campbellii	10	6	Good	Good	Good	Mature	6	83.65	2.4	Large structural roots observed. Footpath has been disturbed. Canopy close to existing house.

Structural Root Zone (SRZ) - The SRZ is the area of root zone required for tree stability.
Tree Protection Zone (TPZ) - The TPZ is the area of root zone required for healthy tree function.
Crown Spread Radius (CSR) – The CSR is the greatest distal branch spread from the centre of the tree

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9. Arboricultural Assessment

9.1. The nine trees assessed in this report are all located in the private property of 85 Ludlum Crescent, Lower Hutt. None of the trees are scheduled for protection under the LHCC District Plan.

9.2. The condition assessment found all nine trees to be in good health with good vitality, good foliar density, and colour.

9.3. Trees 1 – 8 are a mix of both Nikau Palm (*Rhopalostylis sapida)* and Washingtonia Palm (*Washingtonia robusta*), Tree 9 is a Magnolia (*Magnolia campbelii*).

9.4. The assessment of the likely root spread for all trees considered the species, existing topography, soil space, any structures or existing infrastructure.

9.5. Palms 1 – 4, and 6 – 8 are all situated in open lawn areas throughout the site, providing adequate access to soil volume, gas exchange and moisture. Tree 5 is located in a small planter confined by a footpath to its west and brick surfacing to its east.

9.6. Tree 9 is a mature Magnolia tree located to the west of the site adjacent to the existing buildings south-west corner. The tree is situated in open lawn bounded by a footpath to the north and the property to the east. The root spread is likely limited to the east by the building's foundation extent and this area can be excluded from the TPZ of Tree 9.

9.7. The canopy of Tree 9 is approximately one metre away from the existing buildings roof at its closest point.

9.8. The redevelopment of site will require demolition and construction activity, including excavation works, to occur in close proximity and within the root zones of Trees 1 – 9. The construction of new hard surfacing in the form of new buildings, footpaths and vehicle accessways will reduce total surface permeability around the locations of the trees.

9.9. The proposed plans (**Figure 2**) show the retention of lawn space around the nine trees sought to be retained.

9.10. The root zones for Trees 1 - 9 have been provided and are displayed in Appendix 1.

9.11. The following guidelines apply when assessing the potential effects from construction on the health of trees:

Construction Constraints.

Within the **TPZ**, the following activities shall be avoided unless tree sensitive methods are used and approved by a works arborist:

- Ground and soil alteration from machine access and excavation including trenching.
- Excavation for silt fencing
- Demolition work
- Cultivation of soil
- Storage of machinery, chemicals, or materials
- Preparation of chemicals, including concrete, cement etc.

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- Parking of vehicles and machinery
- Refuelling of any kind including small machinery such as chainsaws
- Dumping of waste products
- Wash down and cleaning of equipment.
- Placement of fill
- Lighting of fires
- Soil level changes
- Bank cuts or retaining wall construction
- Temporary or permanent installation of utilities and signs
- Up to 10% of specific root pruning can be permitted but no damage shall be done to roots through machines and compaction etc.

Within the **SRZ,** no construction activity can occur unless agreed to by the works arborist. Any work allowed within the SRZ will not result in the loss of any of the tree's structural roots.

9.12. The following recommendations (**Section 11**) and the Tree Protection Management Plan are part of a pragmatic approach to tree management and should be carried out to protect the tree whilst allowing for the construction works.

10. Conclusion

10.1. The site is to undergo redevelopment to allow for the proposed establishment of 12 new units with associated off-street parking and vehicle access. The site contains nine trees that have been identified for retention where possible. The trees within the property are not scheduled for protection in the LHCC District Plan.

10.2. Trees 1 – 8 are a mix of both Nikau Palms (*Rhopalostylis sapida)* and Washingtonia Palms (*Washingtonia robusta*), and Tree 9 is a *Mabnolia campbellii*.

10.3. All trees within the site currently have access to sufficient soil volume, soil gas exchange capacity and soil moisture. The redevelopment plans will reduce surface permeability and soil volume significantly for all trees.

10.4. The plans do show that existing permeable garden spaces around the nine trees, although reduced in area, have been designated for retention.

10.5. The canopy of Tree 9 is approximately one metre from the existing dwellings roof at its closest point.

11. Recommendations

11.1. **Table 1** provides the TPZ and SRZ distances as a radius from the centre of the base of the trees. These distances should be used as the locations for which tree sensitive construction methods are to be employed to avoid damage to or the loss of the tree as a result of the works.

- A consulting arborist should oversee all works to be undertaken within both these zones.
- Critically, no structural root loss can be tolerated from within the region identified as the SRZ.

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11.2. Works within the TPZ should minimise the extent of root loss, surface permeability loss and compaction. The TPZ can be reduced in total area by a maximum of 20% whilst still allowing for the retention of the tree and continued tree health. TPZ area reduction should be mitigated for by the application of mulch within the remaining root zone to improve soil moisture and facilitate new root growth.

11.3. Where encroachment within the TPZ of any tree is required, tree sensitive methods should be implemented to avoid tree loss. Such options include:

- Permeable surfacing options.
- Build up design options.
- Geo-cellular surface support systems.
- Pile foundation types.
- Cantilevered building sections.
- Bridging sections for paths and driveways.
- Exploratory air or hand excavation for locating roots

11.4. Geo-Cellular systems are a provide a 'no dig, build up' approach that protects trees' root systems where vehicle loading is required. The basic approach can be seen in the following **figure 5**.

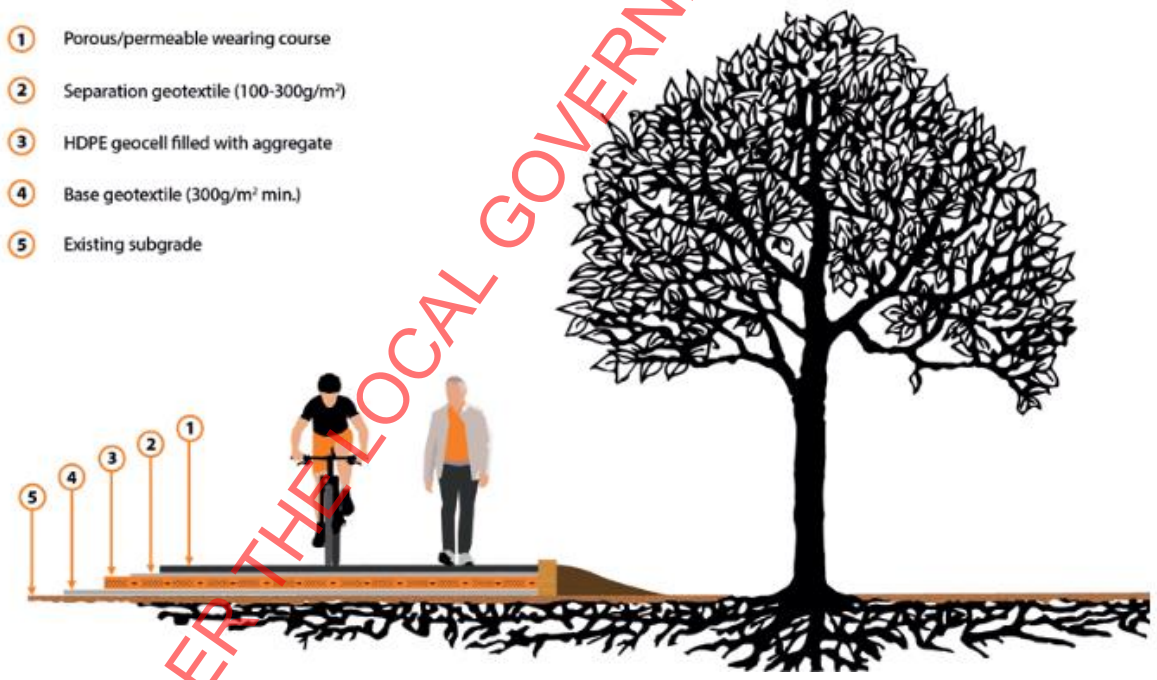

Figure 5: The basic concept of a cellular confinement system.

11.5. The plans show multiple types of encroachment within the TPZ's of Trees 1 – 9. The following points suggest methods of tree retention for the proposed redevelopment based off the plans (**Figure 2**) provided.

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Recommendations to Retain Trees 1 – 9

11.6. Palm trees 1 – 4 are proposed to be retained adjacent to vehicle bay 1 and unit 4. The retention of this group should be possible where:

- No more than 20% of the TPZ area is removed via root or surface permeability loss.
- No trenching or excavation is required within SRZ of any tree.
- Geo-cellular support system utilised for car parking bay and accessway within TPZ.
- Pile foundation type implemented for unit 4.

11.7. Palm trees 2 and 3 are shown in close proximity to parking bay 1. These two trees may be retained if the parking bay is moved elsewhere clear of the TPZ and SRZ. If the bay cannot be relocated, the trees can be retained where a build-up approach is employed such as the Geo-cellular system allows, to avoid excavation in the root zones.

11.8. Palm trees 5 and 6 are located adjacent to a proposed turning bay and parking bay 6 as well as a proposed walkway. The plans show a significant reduction in the existing garden retained around both trees. Both the TPZ and SRZ will be encroached upon by new hard surfacing. The current proposed plans will reduce permeability beyond 20% of existing levels making the retention of these trees unlikely.

11.9. For Trees 5 and 6 to be retained:

- No more than 20% of the TPZ area is removed via root or surface permeability loss.
- No trenching or excavation is required within SRZ of either tree.
- Geo-cellular support system utilised for turning bay and vehicle accessway within TPZ.
- Permeable above ground walkway constructed through the TPZ.

11.10. Palm 7 is positioned between Units 11 and 12 as well as a new 1m wide walkway. The units and walkway both appear to be positioned within both the TPZ and SRZ for this tree. Given the significant reduction in permeability as a result of proposed units 11 and 12 it is unlikely this tree can be retained within the current plans.

11.11. Palm 8 is located adjacent to Unit 8, unit 10 and the new walkway. There are also washing line facilities and waste facilities within the TPZ. The tree may be retained where:

- No more than 20% of the TPZ area is removed via root or surface permeability loss.
- No trenching or excavation is required within SRZ of either tree.
- Permeable above ground walkway constructed through the TPZ.
- Permeable surfacing used for washing line facilities.

11.12. Tree 9's TPZ is measured as a 6m radius from the centre of its base. The plans show significant encroachment within the TPZ and potentially the SRZ by units 8, 9 and the walkway. Its retention is possible if the below criteria are met with the build plans:

- Current root area and surface permeability reduced by no more than 20%.
- No root loss occurs within the SRZ (2.4m radius from tree centre).
- The walkway is built up or bridges over the TPZ with piles as supports.
- Pile foundation types for unit extent within the TPZ.
- Pre excavated pile locations via air excavation.
- Tree canopy pruned to required clearances before work commences.

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11.13. Compaction of soils within root zones is a primary cause of tree decline on construction sites. Where trees have been identified for retention, their TPZ's should be protected from site traffic. This can be achieved via:

- Utilising existing hard surfaces for all vehicle movements.
- Fencing off the TPZ of each tree to prevent damage to the root zone.
- Where the TPZ must be used for vehicle, machinery and people movements, a suitable ground protection should be installed prior to works commencing (**See Section 12**).

11.14. Given the proximity of all trees to proposed construction activities, tree protective fencing should be established at the extent of the TPZ to prevent accidental vehicle strike to the above ground tree structure as well as protecting the soil structure from compaction.

11.15. Before any works commence on site, a meeting should be undertaken between the project manager, site foreperson and project arborist to discuss tree protection requirements when working in proximity to the tree.

11.16. At this meeting the TPZ should be physically marked out in preparation for the establishment of TPZ protective fencing. An example of suitable fencing is depicted in **Image 1** below. To prevent unauthorised encroachment into the TPZ by vehicles, equipment and personnel, tree protective fencing should be installed before preparation, demolition and/or construction works occur anywhere within site.



Image 1. TPZ fencing erected on a construction site to protect tree root zone from construction damage.

11.17. The canopy of Tree 9 should be pruned prior to works commencing to allow sufficient clearance for the construction of the new units adjacent to it. This should also account for any scaffold that will be required external to the building for its construction. Any pruning work that may be required should be carried out by an NZ Arb Registered Master Arborist. A list of these contractors can be found at:

https://www.nzarb.org.nz/find-an-arborist

11.18. All physical tree work should be carried out by an arboricultural contractor that meets the requirements of the client inclusive of health and safety, insurance and pruning standards.

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11.19. Pruning should be in line with current industry best practice and the Minimum Industry Standards (MIS). The following non exhaustive list of MIS documents should be followed:

MIS300 - Safe Tree Work
MIS308 - Tree Pruning
MIS313 - Tree Health & Maintenance

11.20. A Tree Protection Management Plan (TPMP) has been developed to ensure the construction work is carried out without detrimental effects to the health of the trees that can be retained. The following TPMP is to be used for this development.

11.21. The successful implementation of the project, while ensuring the health of the trees, depends on the strict adherence to the Tree Protection Management Plan, which should be followed throughout.

11.22. A copy of the TPMP should be provided to the project manager and site foreperson for the purposes of establishing the location of the TPZ, understanding what can and cannot be done within the TPZ and coordinating works to ensure the tree protection requirements are adhered to.

11.23. A Works Arborist should be appointed at the beginning of the project to ensure all tree work recommendations and the Tree Protection Management Plan (TPMP) are adhered to.

11.24. The TPZ is to be identifiable at all times (See Protective Fencing below) during construction work and no storage of plant, vehicles or any material is to be undertaken throughout the project unless under the guidance and direction of a supervising arborist.

12. Tree Protection Management Plan

12.1. Several tree protection measures should be employed to ensure the survival of trees during the construction phases of projects. These measures can generally be divided into two types:

- Activities – construction work is managed and overseen by the Project or Works Arborist
- Structures – used to identify and isolate trees from construction activity and show the TPZ.

12.2. Some works within the TPZ may have already been approved, however, additional encroachments or activities may arise as the works progress and will need to be reviewed by the Works Arborist and then accepted by the controlling authority.

12.3. To ensure changes and updates are recorded, a monthly arboricultural monitoring memorandum is required alongside an end of project arboricultural completion memorandum. This is to be provided by the Works Arborist.

12.4. The following checklist should be implemented for effective tree protection during the construction phase:

- Pre-commencement meeting on-site. This should include the Works Arborist, the project manager and site foreperson.
- The location of the protective fencing, if required, is to be determined by the Works Arborist before the start of any construction activity.

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- The required ground protection measures are to be installed within the TPZ prior to the start of any construction activity.
- Any consent should be checked and adherence to its conditions ensured.
- Works Arborist should be on site during any works within the TPZ.
- Monthly arboricultural monitoring memorandum provided.
- Arboricultural completion memorandum to be compiled at the end of the project.

Prohibited Activities within the Tree Protection Zone (TPZ)

12.5. The below list of activities will be prohibited within the TPZ, unless approved by the Works Arborist:

- Machine access and excavation (without ground protection)
- Excavation for silt fencing
- Cultivation of soil
- Storage of machinery, chemicals, or materials
- Preparation of chemicals, including concrete, cement etc.
- Parking of vehicles and machinery
- Refuelling of any kind including small machinery such as chainsaws
- Dumping of waste products
- Wash down and cleaning of equipment.
- Placement of fill
- Lighting of fires
- Soil level changes
- Physical damage to the tree including its roots.

Protective Fencing

12.6. In general, prior to the commencement of any construction work at the site, protective fencing should be installed if required. This includes before machinery, or materials arrive. The protective fencing must remain in place unless approval is given by the Works Arborist to allow previously agreed upon works. Unless otherwise approved, the TPZ should always be protected.

12.7. The fencing should be sufficiently robust to exclude construction activities and deter accidental encroachment into the TPZ. It should also be suitable for the task(s) being carried out.

12.8. All staff on site should be made aware of the TPZ and why they are not to encroach into this area.

12.9. Signs should be affixed to the tree protection fencing. These signs should clearly identify the purpose of the fence and be visible from within the construction zone. The following Figure 5 shows an example of the types of protective fencing that are sufficient.

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Legend

1 – Chain wire mesh panels
with shade cloth (if required) attached, held in place with concrete feet.
2 – Alternative plywood or wooden paling fence paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3 – Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind permitted within the TPZ.
4 – Bracing is permissible within the TPZ. Installation of supports should not damage roots.

Figure 6. Tree protective fencing from the Australian Standard.

12.10. Sometimes it is not possible to erect a fence, so all staff on site should be made aware of the TPZ and why they are not to encroach into this area.

12.11. Where robust mesh fencing cannot be installed because of site constraints, an alternative fencing or demarcation method may be used where approved by the project arborist. Examples include glow mesh fencing affixed to ground stakes.

Tree Protection Measures

12.12. When protective fencing cannot be installed or is required to be removed temporarily, the following tree protection measures should be used:

Ground Protection Measures

12.13. If temporary access is required within the TPZ then the ground will need to be protected. These measures need to ensure no soil compaction and root damage can occur and be permeable to moisture and gaseous exchange within the soil. The following are some examples that could be used:

- Plywood boards over a bed of mulch 100mm thick.
- Track mats or similar over a bed of mulch 100mm thick.
- Rumble boards over a bed of mulch or aggregate.

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- Steel plates or equivalent, with or without mulch.

12.14. Each of these methods should have a geotextile membrane under the mulch or aggregate.

12.15. If there is an existing hard surface within the TPZ then machinery can operate on that surface with the approval of the Works Arborist.

Root Protection during works within the TPZ

12.16. It may be necessary to work within the TPZ for some parts of the construction project. To ensure these can be carried out without detrimental effects to the tree to be retained, the Project Arborist should be onsite supervising these activities or carrying them out.

12.17. Excavation within the TPZ should be carried out by a careful combination of hand, or air excavation only. Where existing building foundations are in place, and root spread is unlikely, careful mechanical excavation can be undertaken within the building foundation area. If root spread is encountered, the Project Arborist should be notified, and the roots assessed.

12.18. Any roots encountered during excavations should be retained where possible or pruned under the supervision of the Works Arborist and done so cleanly back to the edge of the excavation using sharp pruning tools. Any pruned roots should be covered to prevent them from drying out during the construction phase and backfilled with the original material.

12.19. Any retained roots that are discovered but need to remain exposed for longer than 2 hours should be protected from drying out and mechanical damage. This can be done using moisture retaining materials such as hessian in combination with a protective layer such as nova coil.

12.20. If large areas of roots are to be left exposed, then a protective layer of mulch and/or geofabric should be used to ensure the roots and surrounding soil remain moist.

12.21. If concrete is proposed to be poured adjacent to retained roots within an excavation, then those roots should be protected from contact with the concrete by a protective layer, such as polythene.

12.22. If it is necessary to pour concrete or asphalt over exposed roots, a protective layer should be placed between the roots and poured material. This protective layer can be sand (no less than 80mm thick) or a geotextile sufficient to protect the roots.

Installation of services

12.23. If services are required to be installed within the TPZ, they should be installed in such a way as to minimise root disturbance. This can be done by trenchless methods such as directional drilling or thrusting, or by the use of careful hand or air excavation of any service trench.

12.24. Trenchless methods should be at a depth of at least 1000mm, preferably deeper. Any entry and exit pits, test pits, or bore pit locations should be assessed for their likely effect on the roots of the trees to be retained.

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13. Appendices

1. Arboricultural Drawing Tree Root Zones

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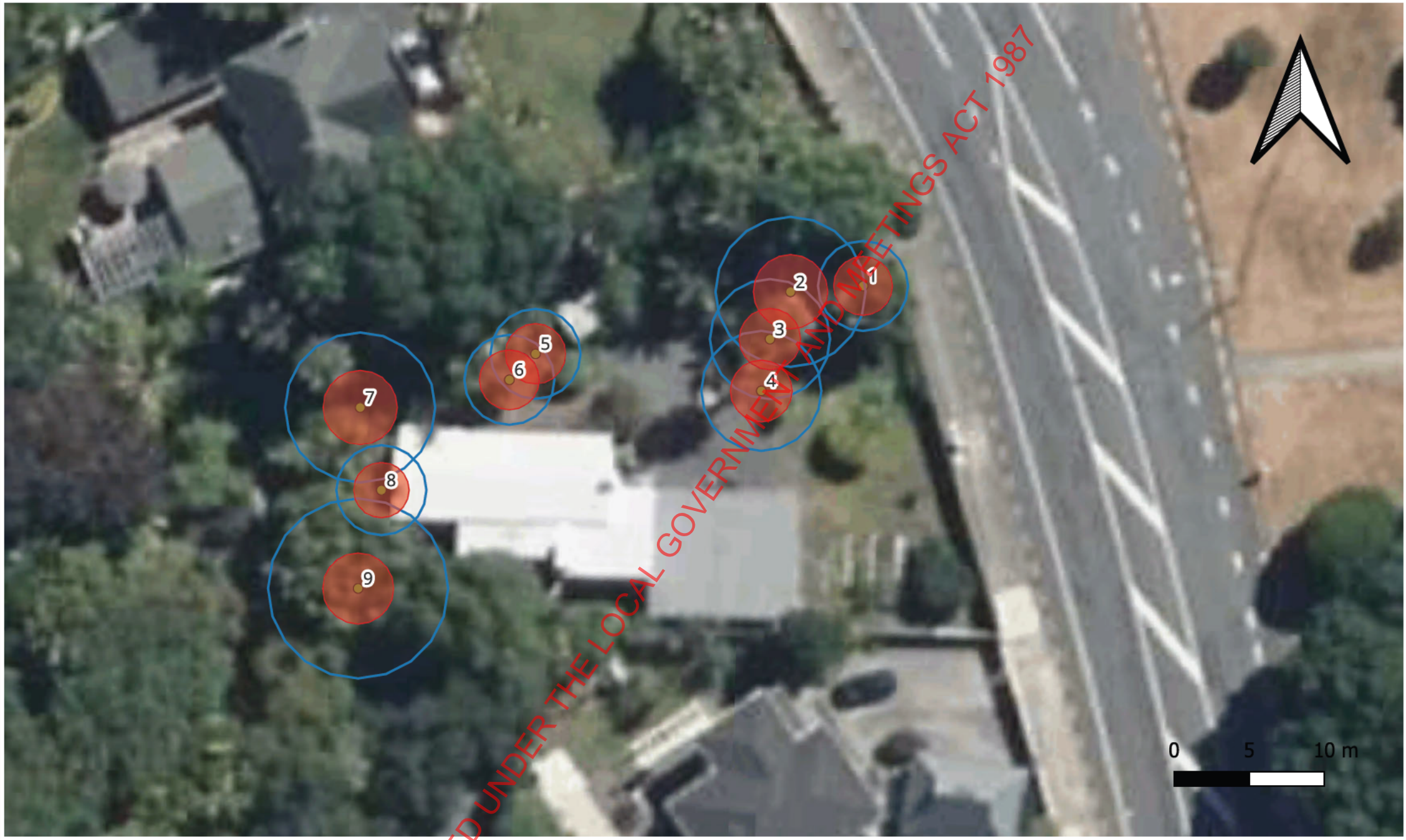

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Legend

- SRZ
- TPZ
- Tree Plots

TPMP 85 Ludlum Crescent, Woburn, Lower Hutt

Tree Inventory

Plotted date:	26/06/2025
Reviewed by:	David Spencer
Plotted by:	Joshua Symes

Aerial images may not accurately reflect the actual vegetation cover. Vegetation is plotted as accurately as possible. Unless otherwise stated, project specific vegetation only has been plotted and captured.
Vegetation alteration/removal may be subject to resource consent requirements/ conditions. It shall be the clients responsibility to determine whether or not this is the case.
Works within the rootzone of trees should be supervised by an appointed arborist.

EDGE

esource

Assessment of E

Ludlam Cre

TE – 4 August 2025

PLICANT – William Edmonds

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Contents

1. Existing Environment 4
2. Proposal 7
3. Resource Consent Requirements 11
4. Notification Considerations 26
5. Assessment of Environmental Effects 28
6. Statutory Assessment 38
7. Conclusion 48

Appendix A. Record of Title
Appendix B. Architectural Plans and Permitted Baseline Plans
Appendix C. Scheme Plan and Topographical Plan
Appendix D. Landscape Plan
Appendix E. Wellington Water Limited Comments
Appendix F. Urban Design Assessment
Appendix G. Stormwater Assessment
Appendix H. Transport Assessment
Appendix. I Arboriculture Report

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To: Resource Consents Manager

Address: **Hutt City Council**
Private Bag 31-912
Lower Hutt 5040

Urban Edge Planning on behalf of William Edmonds applies for the following land use and subdivision consents under sections 9 and 11 of the Resource Management Act 1991 (RMA):

Location of application site	Street Address:	85 Ludlam Crescent, Woburn
	Legal description:	DP 11523
	District Plan zoning:	High Density Residential Zone
UEP Job No.	24315	
Type of resource consent	Land use and subdivision consent	
Brief description of the proposal	Construction of 12 residential units with an associated subdivision.	
Activity status	Land Use: Discretionary Activity Subdivision: Restricted Discretionary Activity	
Other consents required	None	
Deposit fee	$7,725 (subdivision and land use for four or more lots)	
Address for service	**Urban Edge Planning Ltd** Attn: Alice Blackwell PO Box 39071 Wellington Mail Centre Lower Hutt 5045 E: alice@urbanedgeplanning.co.nz P: s7(2)(a)	
Address for invoices	s7(2)(a) Attn: William Edmonds 85 Ludlam Crescent Woburn Lower Hutt 5010	

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	E: s7(2)(a) P: s7(2)(a)

Urban Edge Planning attaches, in accordance with **Schedule 4 of the RMA 1991**, an assessment of environmental effects containing the level of detail that corresponds with the scale and significance of the effects that the proposed activity may have on the environment.

Urban Edge Planning also attaches, in the policy analysis, the relevant information required to be included in this application by the Operative District Plan and the Proposed District Plan. No additional information requirements apply in this case under the RMA or any regulations made under the RMA. No regional consents are required as part of this proposal.

Signature of applicant:

AJBlackwell

Alice Blackwell
Urban Edge Planning
On behalf of William Edmonds
Date: 4 August 2025

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1. Existing Environment

1.1 Location and General Description

The subject site is located on the western side of Ludlam Crescent and has an area of 1359m^2. The site contains an existing residential dwelling and attached garage. The site contains an existing concrete driveway and grassed area at the front, (eastern end) of the site. The site is well landscaped, with a number of mature trees, including a number of nikau palm trees (see Agricultural Report in **Appendix I**.). The site was historically part of the Gardens established by Alfred Ludlam in the 1840s, with some of the trees being over 100 years old.

The surrounding area is residential in character and the site is close to many amenities that support a residential activity. The site is is centrally located, less than 1km from the CBD of Lower Hutt and within 300m of the nearest bus stop.



Figure 1: Image of subject site. Source: Grip

1.2 Planning Environment

1.2.1 Operative District Plan (ODP)

The site is located within the High Density Residential Activity Area (HDRAA) of the Operative District Plan (ODP). The site is not subject to any designation, heritage protections or significant natural, cultural or archaeological resources under the District Plan. The eastern end of the site is subject to a Flood Hazard – Inundation Overlay in the Operative District Plan.

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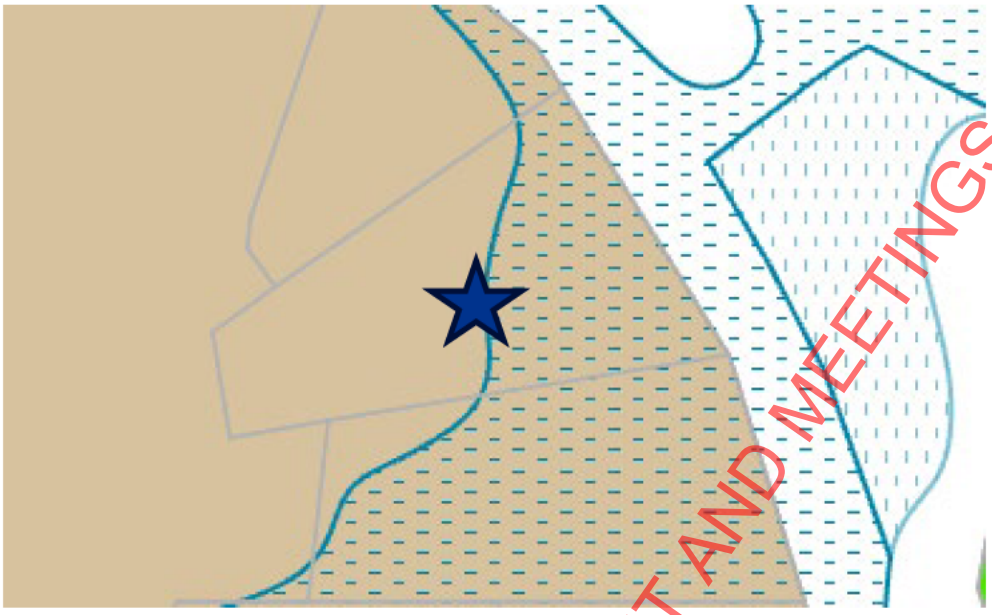

Figure 2: ODP zoning and overlays (85 Ludlam Cres identified with a blue star). Source: Council E-Plan

1.2.2 Proposed District Plan (PDP)

85 Ludlam Crescent is located within the High Density Residential Zone of the Proposed District Plan (PDP). The site is not subject to any designation, heritage protections or significant natural, cultural or archaeological resources under the District Plan. The site is subject to the Inundation Area of the Flood Hazard Overlay and Liquefaction Hazard Overlay.

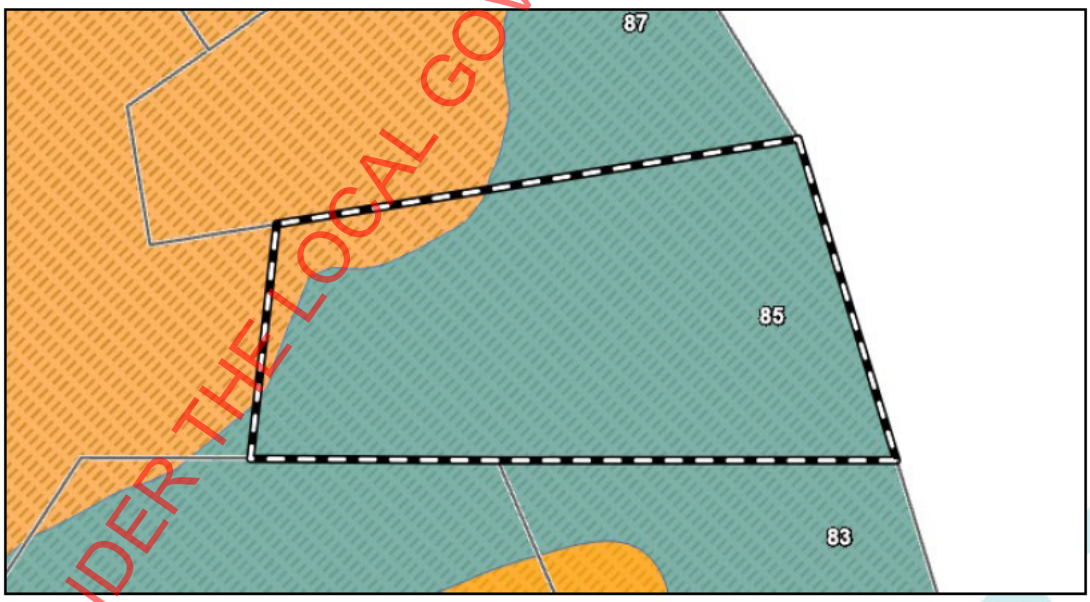

Figure 3 PDP zoning and overlays (85 Ludlam Cres identified by black and white line). Source: HCC E-Plan

1.2.3 Other Planning Matters

The application site is not listed within the Selected Land Use Register (SLUR) maintained by the Greater Wellington Regional Council (GWRC). The site is highlighted as being within a 0.23% flood hazard area on the GWRC Flood Hazard Area map.

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1.3 Legal Description

The application site is legally described as DP 11523, held in Record of Title WN464/170. There are no restrictions or interests registered on the Record of Title which would affect the proposal.

A copy of the Record of Title is attached at **Appendix A**.

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2. Proposal

2.1 Description of the Proposal

The applicant is seeking resource consent to demolish the existing dwelling on the subject site and construct 12 two storey residential units, across three building blocks. The proposal includes 10 onsite carparks. A key influence on the design of the proposal has been the applicants desire to retain the existing nikau palm trees and other mature vegetation where possible.

Architectural plans for the proposed units are attached at **Appendix B** and the scheme plan for the subdivision is attached at **Appendix C**.

2.1.1 Land Use

2.1.1.1 Proposed dwellings

The proposal is for the construction of 12, two-storey residential units, separated into three building blocks as shown in Figure 4 below.

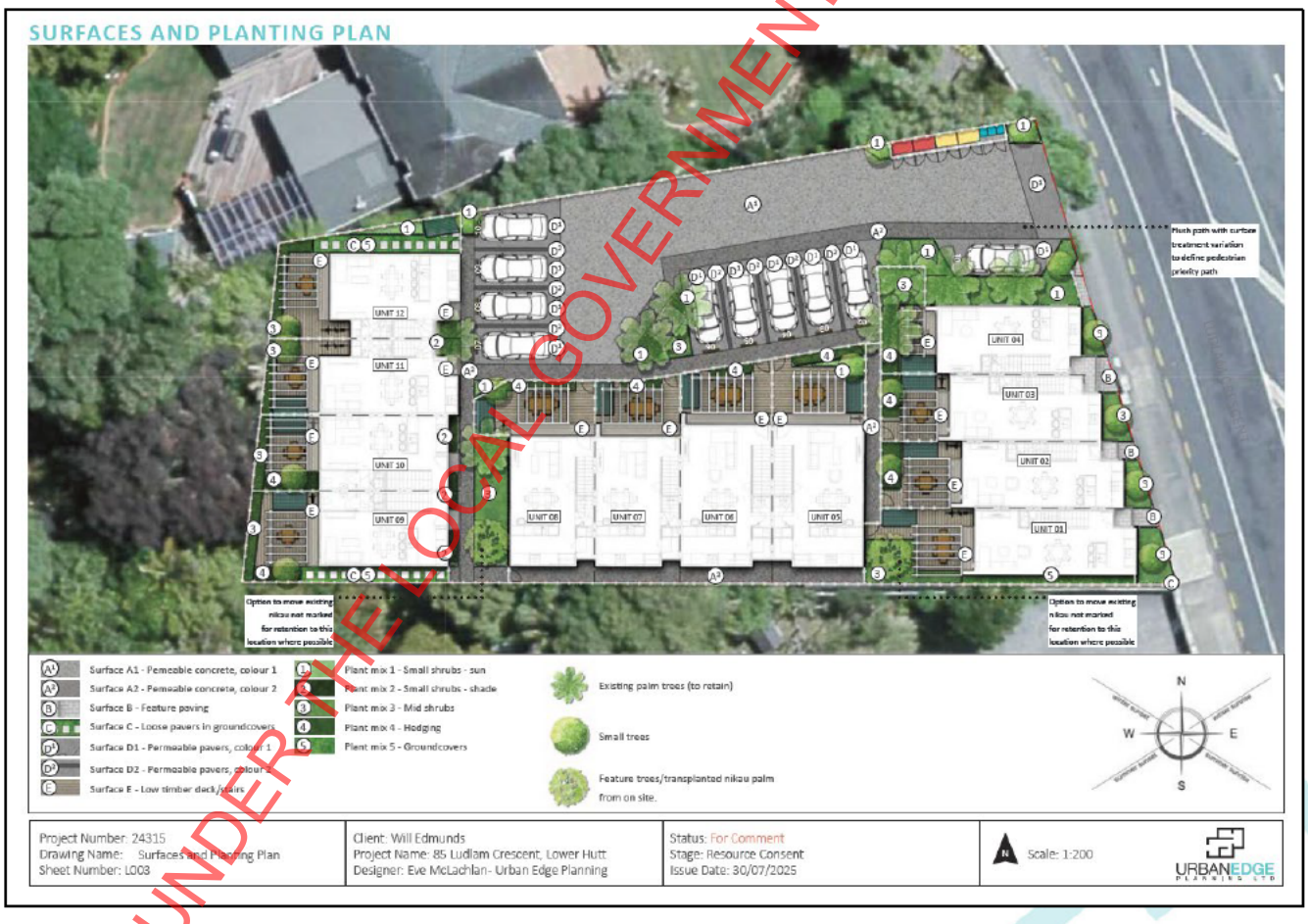

Figure 4: Excerpt from Landscape Plan showing overall layout of the proposal

Block A is at the eastern end of the site and will contain proposed Units 1-4. Each of these units will have two bedrooms. The units within Block A have been designed to address Ludlam Crescent with the front doors of

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units 1-4 positioned to provide direct access to Ludlam Crescent. Each unit has private open space in the rear yard, to the west of each unit.

Block B is parallel to the southern boundary of the site and includes proposed Units 5-8. Units 5 and 6 are 3 bedroom units and Units 7 and 8 are 2 bedroom units with study. Block B has private open space for each unit to the north of each unit. Unit 8 also has open space to the west. There is a 1m yard to the south of Units 5-8 which provides access for building maintenance only.

Block C is located adjacent to the western boundary of the site and includes proposed Units 9-12. Each of these units are two-bedroom. Private open space for units 9-12 is to the west of these units.

The overall layout of the proposed dwellings is shown in the Architectural Plans attached at **Appendix B,** Scheme Plan at **Appendix C** and Landscape Plan attached at **Appendix D**.

2.1.1.2 Earthworks

Earthworks will be required to prepare the site and building platforms. The proposed earthworks are approximately 865m^2. These works are essentially a topsoil scrape of up to 500mm in depth and imported fill of between 350-400mm. The ground will not be altered by more than 1.2m. In terms of the volume of earthworks the proposal involves 433m^3 of cut and 321m^3 of fill.

2.1.1.3 Signage

The proposal includes the installation of signage advertising the development during the construction phase of the project. This is expected to be for a maximum of 12 months. The signage details have not yet been finalised, but will have a maximum area of 6m^2 and will be displayed on the Ludlam Crescent frontage. A condition of consent is proffered that details of the signage are to be submitted to HCC Compliance and Monitoring Officer for approval prior to its installation.

2.1.2 Subdivision

A fee simple subdivision of 13 lots is proposed. It is proposed to subdivide the site to allow each of the 12 units to be contained within their own lot, with an additional lot comprising the access.

Table 1: Details of proposed lots and unit configurations

Lot	Proposed Unit/Access	Lot area (m^2)	No. of Bedrooms
1	Unit 1	90	2
2	Unit 2	70	2
3	Unit 3	64	2
4	Unit 4	86	2
5	Unit 5	97	3
6	Unit 6	79	3

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7	Unit 7	70	2
8	Unit 8	97	2
9	Unit 9	82	2
10	Unit 10	66	2
11	Unit 11	63	2
12	Unit 12	88	2
13	Access	408	N/A

Where necessary, it is proposed to create easements to provide for necessary services, access, parking and maintenance. The proposed scheme layout and a schedule of proposed easements is included on the Scheme Plan in **Appendix C**.

Feedback on the proposal was sought from Wellinton Water Limited (WWL) in relation to three waters and potential flood hazards, the advice provided by WWL is attached at **Appendix E.**

2.1.2.1 Water Supply

Each lot will have a proposed 20mm ID PE100 PN16 water lateral with a 20mm manifold connection at the lot boundary.

It is anticipated that detailed engineering drawings will be required for approval as a condition of consent.

2.1.2.2 Stormwater

The proposal has been designed to achieve stormwater neutrality (see **Appendix G** for stormwater assessment). It is proposed to achieve this through 2 x 250 litre aquacomb pods beneath the deck / house for each unit (with final details to be confirmed at building consent stage) if required by GWRC for hydrological control. The house downpipe will connect directly to the retention system. There will be a pump connected to the system, which will be plumbed into the house so that the retention volume can be used for minimum laundry and toilet water usage. A potable water supply top up will be required for these fixtures to cater for extra ordinary use during drought periods. In addition, there will be a combined below ground detention system in the accessway consisting of Cirtex rain smart stormwater modules. These are shown on the Scheme Plan in **Appendix C**.

Each lot will have a proposed 100mm uPVC (SN16 OR SN6 as appropriate) stormwater lateral, which will connect to a proposed shared stormwater main and then to the existing public stormwater network within Ludlam Crescent.

It is anticipated that detailed engineering drawings will be required for approval as a condition of consent.

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2.1.2.3 Wastewater

Each lot will have a proposed 100mm uPVC (SN16 or SN6 as appropriate) sewer lateral which will connect to a proposed 150mm uPVC SN16 shared sewer which connects to the existing public sewer main within Ludlam Crescent.

It is anticipated that detailed engineering drawings will be required for approval as a condition of consent.

2.1.2.4 Power and Telecommunications

Power and telecommunications are available in the area and separate connections will be provided for each allotment.

2.1.2.5 Access

Each of the lots will have physical and legal access to Ludlam Crescent.

2.1.2.6 Waste

The site has a designated waste area adjacent to the northern boundary of the site. The dimensions of the waste area have been calculated using the online waste calculator. The waste area will be screened by fencing with gates for access.

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3. Resource Consent Requirements

3.1 Operative District Plan – Standards and Rules Assessment

The following table assess the degree of compliance the proposal has with the relevant Operative District Plan rules and related standards.

Table 2: Operative District Plan Standards and Rules Assessment

District Plan Rule No.	Rule / Standard	Compliance
	CHAPTER 4 – ZONE ASSESSMENT	
	Chapter 4G – High Density Residential Activity Area - Activities	
4G 4.1.1	**Residential Activities** Residential activities are permitted activities.	Complies
4G 4.1.9	**Light Spill** Activities are permitted activities if: (i) Artificial light does not result in added illuminance in excess of 8 lux measured at the window of any dwelling house. (j) Light spill is avoided beyond the boundary of the site.	Complies
4G 4.1.10	**Vibration** Activities that would cause vibration are permitted activities if: (i) The activity is managed and controlled in such a way that no vibration from the activity is discernible beyond the boundary of the site.	**May not comply** Construction of the units may produce vibration evident beyond the boundary of the application site (resource consent is sought as a precaution).
4G 4.1.11	**Vegetation Removal** (a) The removal of indigenous vegetation: (i) That was planted within a domestic garden for amenity purposes and/or the use of amenity or screening, (ii) Within 5 metres of a lawfully established residential unit, (iii) Within 3 metres of a lawfully established accessory building with a gross floor area greater than 10m^2. (iv) To maintain existing open areas, tracks, accessways, fences and onsite services, (v) To maintain existing network utilities, (vi) To prevent loss of life, injury or damage to property, (vii) To remove dead or diseased vegetation, or, (viii) In accordance with Tikanga Maori, Is a permitted activity.	Complies The existing vegetation within the site was planted for amenity purposes.

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District Plan Rule No.	Rule / Standard	Compliance
	(b) The removal of exotic vegetation is a permitted activity if: (i) The area from which vegetation was removed must be stabilised against erosion by vegetation cover or other methods. (c) The removal of trees on an Urban Environment Allotment is a permitted activity. (d) The trimming of vegetation is a permitted activity.	
Chapter 4G 4.2 – High Density Residential Activity Area – Development Standards		
4G 4.2.1	**Number of Residential Units per Site** (a) Up to three residential units per site are a permitted activity.	**Does not comply** The proposal is for 12 residential units.
4G 4.2.2	**Building Coverage** (a) Construction or alteration of a building is a permitted activity if: (i) The building coverage does not exceed 50%.	**Does not comply** Lot 1 – 49% **Lot 2 – 63%** **Lot 3 – 66%** Lot 4 – 48% **Lot 5 – 57%** **Lot 6 – 70%** **Lot 7 – 67%** Lot 8 – 48% **Lot 9 – 54%** **Lot 10 – 67%** **Lot 11 – 68%** **Lot 12 – 51%** Lot 13 – N/A Overall – complies - 41%
4G 4.2.3	**Building Height** (a) Construction or alteration of a building is a permitted activity if: (i) The building is within a specific height control overlay shown on the District Plan map and does not exceed the maximum height shown for that overlay, or (ii) In any other case, the building does not exceed a maximum height of 22m.	Complies The maximum height of the proposal is approximately 7.5 metres.
4G 4.2.4	**Height in Relation to Boundary** (a) Construction or alteration of a building is a permitted activity if the following height in relation to boundary requirements are being met: (i) 4m + 60° from all side and rear boundaries where no more than 3 residential units will occupy a site. (ii) Where four or more units occupy the site:	**Does not comply** Block A: Complies **Block B: Does not comply** – portions of the upper level encroach into the Height in Relation to Boundary by a maximum of approximately 0.698m. **Block C: Does not comply** - the northern and southern eaves of

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District Plan Rule No.	Rule / Standard	Compliance
	(a) 8m + 60° along the first 21.5m of the side boundary as measured from the road frontage (b) 4m + 60° along all other boundaries (c) Except 4m + 60° applies along any boundary that adjoins a site: a. In any other Residential Zone b. Containing a historic heritage building or structure listed in Chapter 14F – Appendix Heritage 1, 2 or 3 or a significant cultural resource listed in Chapter 14E - Appendix Significant Natural, Cultural and Archaeological Resources 1. Where the boundary forms part of a legal right of way, entrance strip, access site, or pedestrian access way, the height in relation to boundary applies from the farthest boundary of that legal right of way, entrance strip, access site, or pedestrian access way. This standard does not apply to: (a) A boundary with a road, (b) Existing or proposed internal boundaries within a site, and (c) Site boundaries where there is an existing common wall between two buildings on adjacent sites or where a common wall is proposed. (d) Boundaries adjoining a commercial or business zone activity area (e) Chimney structures not exceeding 1.1m in width on any elevation, provided these do not exceed the height in relation to boundary by more than 1m, and (f) Antennas, aerials, satellite dishes (less than 1m in diameter), flues, and architectural features (e.g., finials, spires), provided these do not exceed the height in relation to boundary by more than 3m measured vertically.	Block C encroach into the HIRB by a height of 0.75 metres, and a portion of roofline encroaches by approximately 1.06m.
4G 4.2.5	**Setbacks** (a) Construction or alteration of a building is a permitted activity if: (i) Buildings are set back from the relevant boundary by the minimum depth listed below Front yard: 1.5m Side yard: 1m Rear yard: 1m (ii) One accessory building may be located in a side and/or rear yard, provided that the building does not extend more than 6m along the length of any	**Does not comply** Side yards: The side yard to the south of Block A is approximately 0.6m. Front yards: The corner of Unit 1, Unit 2, Unit 3 and Unit 4 encroach into the front yard. The largest encroachment is at the north eastern corner of Unit 4 where the corner of the building is 0.647m from the front (Ludlam Crescent) boundary of the site.

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District Plan Rule No.	Rule / Standard	Compliance
	boundary and is not located in a yard that is directly adjoining the rail corridor. This standard does not apply to site boundaries where there is an existing common wall between 2 buildings on adjacent sites or where a common wall is proposed. Eaves may encroach into any yard by up to 0.6m.	The proposal complies with respect to the northern and western side boundaries.
4G 4.2.7	**Permeable Surface** (a) Construction or alteration of a building, or new impermeable surfaces, is a permitted activity if: (i) A minimum of 30% of the site area is a permeable surface.	**Does not comply** Lot 1 – 47% Lot 2 – 34% Lot 3 – 33% **Lot 4 – 29%** Lot 5 – 41% **Lot 6 – 29%** Lot 7 – 30% Lot 8 – 51% Lot 9 – 43% Lot 10 – 33% Lot 11 – 35% Lot 12 – 45% Lot 13 – 100%
4G 4.2.8	**Outdoor Living Space** (a) Construction or alteration of a building is a permitted activity if: (iii) Each residential unit at ground floor level has an outdoor living space that is at least 20m² and comprises ground floor, balcony, patio, or roof terrace space that: 1. Where located at ground level, has no dimension less than 3m; 2. Where provided in the form of a balcony, patio, or roof terrace, is at least 8m² and has a minimum dimension of 1.8m; 3. Is accessible from the residential unit; and 4. May be: i. Grouped cumulatively by area in one communally accessible location, or ii. Located directly adjacent to the unit; and 5. Is free of buildings, parking spaces, and servicing and manoeuvring areas. (iv) Each residential unit located above ground floor level must have an outdoor living space in the form of a balcony, patio, or roof terrace that: 1. Is at least 8m and has a minimum dimension of 1.8m; and 2. Is accessible from the residential unit; and	**Does not comply** Lot 1 – 31.52m² Lot 2 –21.28 m² **Lot 3 – 17.87 m²** Lot 4 – 21.69 m² Lot 5 – 21.91 m² **Lot 6 – 16.03 m²** **Lot 7 – 15.53 m²** Lot 8 – 22.10 m² Lot 9 – 26.22 m² **Lot 10 – 18.89 m²** **Lot 11 – 16.62 m²** Lot 12 – 21.82 m² Lot 13 – N/A

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District Plan Rule No.	Rule / Standard	Compliance
	3. May be: i. Grouped cumulatively by area in one communally accessible location, in which case it may be located at ground level; or ii. Located directly adjacent to the unit.	
4G 4.2.9	**Accessory Building** (a) Construction or alteration of an accessory building is a permitted activity if: (i) Development Standards 4G 4.2.1 (Building Coverage), 4G 4.2.2 (Building Height), 4G 4.2.3 (Height in Relation to Boundary), 4G 4.2.4 (Setbacks) and 4G 4.2.5 (Permeable Surface) are complied with.	N/A No accessory buildings are proposed.
4G 4.2.10	**Screening and Storage** (a) Construction or alteration of a building is a permitted activity if: (i) All outdoor storage and servicing areas are screened so that they are not visible from a road or public space.	Complies The waste storage area at the front of the site will be screened.
4G 4.2.11	**Demolition** (a) The demolition of a building is a permitted activity.	Complies
4G 4.2.12	**Stormwater Detention** (a) Construction of a roofed building, excluding accessory buildings or additions to an existing building, is a permitted activity if: (i) A rainwater tank is provided for the building that collects all rainwater from the roof of the building. The rainwater tank must have the following volumes: Roof area of 100m² or less - 2,000 litre capacity. Roof area of 100m² to 200m² - 3,000 litre capacity. Roof area of more than 200m² - 5,000 litre capacity. The tank must meet the specifications and be installed in accordance with Acceptable Solution #1 from the Wellington Water guide Managing Stormwater Runoff, The use of raintanks for hydraulic neutrality, Acceptable solution #1 dated June 2019.	**Does not comply** The proposal does not include 2000l stormwater detention tanks but instead proposes 2 x 250 litre aquacomb pods beneath the deck / house for each unit and Cirtex Rainsmart modules in the access lot.
4G 4.2.13	**Outlook space (per unit)** (a) Construction or alteration of a building is a permitted activity if: (i) Outlook space is provided for each residential unit as specified in this rule.	**Does not comply** Lot 1 – complies Lot 2 – complies Lot 3 – complies Lot 4 - complies Lot 5 – complies

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District Plan Rule No.	Rule / Standard	Compliance
	(ii) Outlook space is provided from habitable room windows as shown in the diagram... (iii) The minimum dimensions for a required outlook space are: (a) A principal living room must have an outlook space with a minimum dimension of 4 metres in depth and 4 metres in width; and (b) All other habitable rooms must have an outlook space with a minimum dimension of 1 metre in depth and 1 metre in width. (iv) The width of the outlook space is measured from the centre point of the largest window on the building face to which it applies. (v) Outlook spaces may be over driveways and footpaths within the site or over a public street or other public open space. (vi) Outlook spaces may overlap where they are on the same wall plane in the case of a multi-storey building. (vii) Outlook spaces may be under or over a balcony. (viii) Outlook spaces required from different rooms within the same building may overlap. (ix) Outlook spaces must: (a) Be clear and unobstructed by buildings; and (b) Not extend over an outlook space or outdoor living space required by another dwelling.	Lot 7 – complies Lot 8 – complies Lot 9 – complies **Lot 10 – Does not comply (4x4 requirement)** **Lot 11 – Does not comply (4x4 requirement)** **Lot 12 – Does not comply (4x4 requirement)** Lot 13 – N/A
4G 4.2.14	**Windows to Street** (a) Construction or alteration of a building is a permitted activity if: (i) Residential units facing the street have a minimum of 20% of the street-facing façade in glazing. This can be in the form of windows or doors.	**Complies** The Ludlam Crescent elevation has 23% glazing.
4G 4.2.15	**Landscaped Area** (a) Construction or alteration of a building is a permitted activity if the following landscaped area standards are met: (i) A residential unit at ground floor level has a landscaped area of a minimum of 20% of a developed site with grass or plants, and can include the canopy of trees regardless of the ground treatment below them. (ii) The landscaped area may be located on any part of the development site and does not need to be associated with each residential unit.	**Does not comply** Overall area = 1,359m², Landscaped Area = 221m² or **16%**

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District Plan Rule No.	Rule / Standard	Compliance
Note 4G 4.3	**General Rules** All activities must comply with the General Rules in Chapter 14	See assessment below
CHAPTER 14 – GENERAL RULES ASSESSMENT		
14A Transport – Permitted Activities		
14A 5.1 (a)	Any activity is permitted if it: i. Complies with the standards listed in Appendix Transport 1; and ii. Does not exceed the high trip generator thresholds specified in Appendix Transport 2.	**Does not comply**- See assessment below
14A Transport – Appendix Transport 1		
Standard 1	**Standards for New Roads** (a) Road classification (b) Engineering Standards (c) Service Lanes, Private ways, Pedestrian Accessways and Walkways.	Complies (a) Ludlam Cres is an Arterial Road (b) Complies (see Transport Assessment in Appendix H) (c) Complies (see Transport Assessment in Appendix H)
Standard 2	**Site Access and Manoeuvring Area** (a) Vehicle access - No more than two separate crossings for any front site. The total width of such crossings must not exceed 50% of the road frontage. - There must be a separation distance of at least 1 metre between crossings measured at the kerb/carriageway edge. - Site access must be designed and constructed in accordance with Section 3 of AS/NZS 2890.1:2004 Parking facilities Part 1: Off-street car parking. - Where a vehicle access serves three or more dwellings, it must have a minimum width of 4 metres to allow for fire service vehicles. (b) Separation Distances from Intersection and Rail Level Crossings - The distance between new vehicle accesses and all intersections must be at least: • National or Regional: 30m • Arterial or Primary Collector: 20m • Secondary Collector: 15m • Access Road: 10m	**Does not comply** (a) Complies (see Transport Assessment in Appendix H) (b) **Does not comply** The proposed access driveway is within 20m of the Penrose St intersection. (c) **Does not comply** All vehicles will be able to enter the site and undertake all manoeuvres within the site and be able to exit in a forward direction. This is demonstrated by the vehicle tracking completed (Appendix 2) in/out of each parking space and through the drive through area. Loading is proposed outside of peak periods. A refuse collection truck will need to reverse into the site from the road such that it can exit in a forward direction.

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District Plan Rule No.	Rule / Standard	Compliance
	- The distance between new vehicle accesses and all rail level crossings must be at least 30m These distances are to be measured between the intersecting points of the site boundaries as shown in Diagram 2-1, and also apply to new vehicle accesses on the opposite side of the road from an intersection. (c) Manoeuvring Area - Sufficient area must be provided for vehicles to stand, queue and make all necessary manoeuvres without using the public road reserve, and without using the area provided for parking, servicing, loading or storage purposes. - Sufficient area must be provided to allow vehicles to enter and exit the site in a forward direction except where the access is to a single dwelling and accesses an Access, Secondary Collector or Primary Collector road (as listed in Appendix Transport 3).	
Standard 3	**Minimum Sight Distances at Railway Level Crossings**	N/A
Standard 4	**Car and Cycle Parking and End of Trip Facilities** (d) Car Parking Design Standards Car parking spaces and facilities must comply with the requirements of AS/NZS 2890.1:2004 Parking facilities Part 1: Off-street car parking.	Complies 10 off street parking spaces are proposed onsite. These have been designed to meet the requirements for user class 1A 90 degree angle parking spaces. The parallel parking space has also been designed in accordance with AS/NZS2890.1 designed as per the requirement (see **Appendix H** for detailed assessment).
	14B Signs – Permitted Activities	
14B 2.1.1	(a) Location: (i) All signs must be located on the site to which they relate with the exception of temporary signs erected for the purposes of a local or central government election. (ii) No sign is permitted on the roof of any building. (b) Maximum Height: (i) Free standing signs - 3m (ii) Where a sign is attached to a building, the sign may not protrude above the eaves of the building. (c) Maximum Face Area: (i) 1.0m² per site, with the exception of temporary signs erected for the purposes of a local or central government election, for which the maximum face area shall be 2.4m² and signs within the Tertiary	**Does not comply** (a)(i) complies; (ii) complies (b)(i) N/A; (ii) complies (c)(i) **Does not comply** (d)(i) N/A (e)(i)-(iii) N/A the sign will not be illuminated (f)(i)-(ii) complies there will no movement or inflation of the sign. (g) N/A

RELEASED UNDER THE LOCAL GOVERNMENT AND MEETINGS ACT 1987

District Plan Rule No.	Rule / Standard	Compliance
	Education Precinct (as shown on Appendix General Residential 20) for which the maximum face area shall be 3.0m². (d) Temporary Signs: (i) Electioneering signs shall not be displayed more than 42 days before the election, or 2 days after the election. (ii) Any other temporary sign shall not be displayed more than 3 months prior to the purpose or event, and shall be removed within 2 days of the completion of the purpose or event for which the sign was erected. (iii) No temporary sign (other than those for the purposes of advertising the sale of the property, or for the purposes of a local or central government election) may be erected on sites with frontage to: The Esplanade and Waione Street, Petone. Eastern Hutt Road from Reynolds Bach Drive to the Pomare Rail Overbridge, Randwick Road. Victoria Street, Ewen Bridge Roundabout, and Woburn Road. Appendix Signs 1 - 4 identifies the sites subject to this provision. (e) Illumination: (i) If a sign is to be lit, they shall be lit by constant illumination, and shall not flash. Such signs may be lit by directional illumination or lit from within. (ii) Artificial light shall not result in added illuminance in excess of 8 lux measured at the window of any dwelling house within a residential, rural or recreation activity area, the Community Iwi Activity Area 1 - Marae, or Community Health Activity Area. (iii) All measures shall be taken to ensure there is no unreasonable light spill beyond the boundary of the site. (f) Movement: (i) No sign shall have any parts which are moving or carrying a variable message. (ii) No sign shall be inflated by any means. (g) Content: (i) Within the Tertiary Education Precinct (as shown on Appendix General Residential 20) signs must serve only to denote the name, character or purpose of any Permitted Activity or other lawfully established activity on the site.	
14H Natural Hazards – Permitted Activities		
14H 2.3	1. New residential units, commercial activities or retail activities that are within the Inundation Area of the Flood Hazard Overlay are permitted activities where:	Complies

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District Plan Rule No.	Rule / Standard	Compliance
	a. When located within an Inundation Area of the Flood Hazard Overlay, the finished floor levels of the building for the Potentially Hazard Sensitive Activity are located above the 1% Flood Annual Exceedance Probability Level, including an allowance for freeboard, where the finished floor level is to the bottom of the floor joists or the base of the concrete floor slab.	The proposal has been designed to comply with the minimum floor levels as advised by WWL (3.7m).
	14I Earthworks – Permitted Activities – Conditions	
14I 2.1.1	a) Ground Level: the natural ground level may not be altered by more than 1.2m measured vertically b) Quantity: maximum volume of 50m³ (solid measure) per site. c) Baring Head, Pt 1A2 Parangarahu d) In the Primary and Secondary River Corridors, earthworks must be a minimum distance of 20m from a flood protection structure.	**Does not comply** (a) Complies – the proposal is for a site scrape changing the ground level by approximately 500mm. **(b) Does not comply** The proposal is for 433m³ of cut and 321m³ of fill. (c) N/A (d) N/A
	CHAPTER 11 – SUBDIVISION ASSESSMENT	
	11.2.2 Controlled Activity Standards	
11.2.2.1 (a)	**Allotment Design** Within the Medium Density and High Density Residential Activity Area, (with some exclusions).	
	Minimum size of allotment: No minimum size required.	Complies
	Resulting allotments with no residential units: (ii) For any resulting allotment with no existing residential unit: A. It is practicable to construct a residential unit on the allotment as a permitted activity, or B. Land use consent has been granted for the proposed use of the site (including built development), or C. The subdivision application is accompanied by a land use application for the proposed use of the site that will be determined concurrently with the subdivision application.	Complies The subdivision is accompanied by a land use consent that will be considered concurrently with the subdivision application.
	Minimum frontage: 3m to ensure there is drive-on access to the allotment. For rear allotments, this may be satisfied through a right of way.	Complies

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District Plan Rule No.	Rule / Standard	Compliance
11.2.2.1(b)	**Engineering Design** i. Access Compliance with Chapter 14A - Transport. ii. Service Lanes, Private Ways, Pedestrian Accessways and Walkways Compliance with Chapter 14A - Transport. iii. Street Lighting Compliance with AS/NZS 1158:2005 Code of Practice for Road Lighting. iv. Stormwater Compliance with the stipulated standards v. Wastewater Compliance with the stipulated standards vi. Water Supply Compliance with the stipulated standards vii. Telecommunications and Electricity Compliance with the requirements of the relevant network utility operator. viii. Earthworks Compliance with the stipulated standards	**Does not comply** i. and ii. **Does not comply** - See assessment against transport standards above. iii N/A iv. Complies v. Complies vi. Complies vii. Complies viii. Complies
11.2.2.1(c)	**Contamination** Compliance with the Ministry for the Environment, Contaminated Land Management Guidelines 1 – 5	Complies
11.2.2.1(d)(ii)	**Esplanade Reserves, Strips and Access Strips** In all activity areas, in respect of lots less than 4 hectares, an esplanade strip of 20m shall be set aside for such lots along the bank of any river whose bed has an average width of 3m or more where the river flows through or adjoins the lot concerned, except that properties with access to Moores Valley Road or Crowther Road that this standard applies to shall have an esplanade reserve of 5m.	N/A – no esplanade reserves, strips or access strips are required or proposed.
11.2.2.1(e)	**Earthworks** Compliance with permitted activity conditions 14I 2.1.1 Exception: The standards in Rules 14I 2.1.1 a. and b. shall not apply to trenching carried out as part of the subdivision. Compliance with NZS 4431:1989 and Part 2 NZS 4404:2004; and Erosion and Sediment Control Guidelines for the Wellington Region/Small Sites.	**Does not comply** See Earthworks assessment above.
11.2.2.1(f)(i)	**Financial Contributions**	Will comply
11.2.2.2(f)(ii)	**General Rules** in Chapter 14 of the District Plan.	Does not comply

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District Plan Rule No.	Rule / Standard	Compliance
		See General Rules assessment above.

3.2 Operative District Plan - Activity Status

Table : Operative District Plan – Activity Status

Activity	Rule	Activity Status
Land Use	The proposal is a Restricted Discretionary Activity under the following rules: • 4G 4.1.10 (b) – Vibration • 4G 4.2.1 (b) – Number of Residential Units per site • 4G 4.2.2 (b) – Building Coverage • 4G.4.2.4 (b) – Height in Relation to Boundary • 4G 4.2.5 (b) – Setbacks • 4G.4.2.7 (b) – Permeable Surface • 4G 4.2.8 (b) – Outdoor Living Space • 4G 4.2.12 (b) – Stormwater Detention • 4G 4.2.13 (b) – Outlook space per unit • 4G 4.2.15 (b) – Landscaped Area • 14A.5.1(b) – Appendix Transport 1 (separation distance from intersection and manoeuvring) • 14I 2.2(a) – Earthworks	**Restricted Discretionary Activity**
Signage	The proposal is a Discretionary Activity under Rule 14B 2.4 with respect to the proposed signage advertising the proposed development.	**Discretionary Activity**
Subdivision	Consent is required as a Restricted Discretionary Activity under the following rules: • Under Rule 11.2.3(a) as the proposal is unable to comply with the following standards under Rule 11.2.2: o 11.2.2.1(b) -Engineering Design (access and manoeuvring); o 11.2.2.1(e) – Earthworks	**Restricted Discretionary Activity**

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3.3 Proposed District Plan – Standards and Rules Assessment

The PDP was notified on 6 February 2025. Rules only have legal effect where they protect or relate to water, air, or soil (for soil conservation), protect areas of significant indigenous vegetation, protect areas of significant habitats of indigenous fauna, protect historic heritage, or provide for or relate to aquaculture activities. Otherwise, the proposed rule has no weighting in the consenting process. There are no relevant rules under the PDP that have immediate legal effect in relation to the proposal, as per s86B of the RMA 1991.

3.4 Scope

This application seeks resource consent in order to establish all aspects of the proposal.

If Council is of the view that resource consent is required for alternative or additional matters to those identified above, it has the discretion to grant consent to those matters as well as, or in lieu of those identified in this AEE.

3.5 Matters of Discretion

Although it is noted that the proposed signage is a Discretionary Activity, every other matter that the proposal requires consent for is a Restricted Discretionary Activity. As such the matters of discretion identified in the District Plan have been included below for information purposes.

Table 3: Relevant Matters of discretion

Standard breached	Matters of discretion
Vibration	Effects on the amenity of the surrounding residential area
Number of residential units	(i) The planned urban built character (ii) The matters in Policies 4G 3.5, 4G 3.9 and 4G 3.10 (iii) The extent to which the development, building design, siting, and external appearance achieves an urban design outcome that: a) Contributes to safe and attractive streets and public open spaces, and provides safe pedestrian access to buildings from the street b) Achieves quality onsite living environments. (iv) Network infrastructure capacity (v) Positive effects (vi) Effects on the safety and efficiency of the transport network (vii) Provision for access to active modes, storage and service areas
Building coverage	(i) The planned urban built character
Height in relation to boundary	(i) The planned urban built character for the High Density Residential Activity Area, including the requirements to enable buildings of at least six storeys within the High Density Residential Activity Area (ii) Dominance, privacy, and shading effects on adjoining sites (iii) Streetscape and visual amenity effects
Setbacks	(i) The planned urban built character (ii) Dominance, privacy, and shading effects on adjoining sites (iii) Streetscape and visual amenity effects

RELEASED UNDER THE LOCAL GOVERNMENT AND MEETINGS ACT 1987

Standard breached	Matters of discretion
Permeable surface	(i) Effects on the stormwater system (ii) Potential for increased surface ponding and flooding (iii) Mitigation of additional stormwater through means such as onsite stormwater retention.
Outdoor living space	(i) The planned urban built character (ii) The design, layout, access for residents, functionality, and on-going maintenance (including legal instruments) of any communal space provided on site to provide outdoor living. (iii) Any positive effects. (iv) The effects on the amenity for residents of the site (v) The usability and functionality of the proposed outdoor living area for future occupants. (vi) The proximity of the site to communal or public open space
Stormwater Detention	(i) The effects on the stormwater system. (ii) The potential for increased surface ponding and flooding. (iii) The mitigation of additional stormwater runoff through other means.
Outlook Space (per unit)	(i) The planned urban built character for the High Density Residential Activity Area. (ii) The matters in Policy 4G 3.7. (iii) The effects on internal privacy of future occupants resulting from a reduced outlook. (iv) Any mitigation factors such as view or landscaping that compensates for a reduced outlook.
Landscaped Area	(i) The planned urban built character (ii) The matters in Policy 4G 3.7 (iii) The accommodation of visually prominent vegetation (iv) Proposed measures and ownership of the landscaping to ensure ongoing maintenance. (v) Timing of the implementation of the landscape. (vi) Appropriateness of species and their ability to service [sic] the local climate. (vii) Appropriateness of species to be planted for the spaces that have been allowed.
Transport	(i) The effects generated by the standard(s) not met.
Earthworks	(ii) Amenity values (iii) Existing natural features and topography (iv) Historical or cultural significance (v) Natural hazards
Subdivision	(i) Any actual or potential adverse effects arising from the non-compliances, and measures to avoid, remedy or mitigate such effects. (ii) The matters of Control under Rule 11.2.2.2 (iii) Amenity values (iv) Existing natural features and topography (v) Historical or cultural significance (vi) Natural hazards (vii) Construction effects

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Standard breached	Matters of discretion
	(viii) Engineering requirements (ix) Erosion and sediment management (x) Contaminated land (xi) Vegetation protection and presence (for the area shown in Appendix Subdivision 5) (xii) Visual effects of built development on the wider area (for the area shown in Appendix Subdivision 6).

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4. Notification Considerations

4.1 Public Notification – Section 95A

The matters to be considered when deciding whether or not to publicly notify an application are set out in Section 95A of the RMA and summarised below.

Step 1: Public notification is mandatory in certain circumstances (s95A(2)&(3))

a.	Has the applicant requested public notification?	**No**
b.	Is public notification required under s95C of the RMA?	**No**
c.	Is the application made jointly with an application to exchange recreation reserve land under s15AA of the Reserves Act?	**No**

Mandatory public notification is not required as the applicant has not requested public notification [s95A(3)(a)], there are no outstanding section 92 matters [s95A(3)(b)], and the application has not been made jointly with an application to exchange recreation reserve land under section 15AA of the Reserves Act [s95A(3)(c)].

Step 2: Public notification is precluded in certain circumstances (s95A(4)&(5))

a.	Are any activities in the application subject to a rule in a Plan or National Environmental Standard precluding public notification?	**No**
b.	Is the application for one or more of the following (but no other) activities?	
	i. A controlled activity	**No**
	iii. A restricted discretionary, discretionary or non-complying activity where it relates to a boundary activity.	**No**

There is no preclusion to public notification as the relevant rules in the District Plan do not preclude notification of the application [s95A(5)(a)] and the application is not for one of the activities listed at sections 95A(5)(b)(i)&(iii) of the Act.

Step 3: Public notification is required in certain circumstances (s95A(7)&(8))

a.	Is any activity in the application subject to a rule in a Plan or National Environmental Standard that requires public notification?	**No**
b.	Does the activity have, or is likely to have, adverse environmental effects that are more than minor in accordance with s95D?	**No**

The adverse effects of the application are considered to be less than minor. Public notification is not required under this step.

Step 4: Public notification is required in special circumstances (s95A(9))

Do special circumstances exist that warrant public notification?	**No**

Special circumstances have been defined as circumstances that are unusual or exceptional but may be less than extraordinary or unique. None of the circumstances of the application are exceptional or unusual. Therefore, there are no special circumstances that warrant public notification under section 95A(9).

Section 95A Conclusion

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Having regard to the four steps outlined within Section 95A, public notification of this application is not required.

4.2 Potentially Affected Persons – Section 95B

Section 95B relates to limited notification of consent applications and the relevant steps are summarised below.

Step 1: Certain affected groups/persons must be notified (s95B(2)&(3))

a.	Are there affected customary rights groups?	**No**
b.	Are there affected customary marine title groups (for accommodated activities)?	**No**
c.	Is the proposal on or adjacent to, or may affect, land that is subject to a statutory acknowledgement and whether the person to whom the statutory acknowledgement is made affected under section 95E?	**No**

There are no protected customary rights groups or customary marine title groups that will be affected by the proposal, and the proposal is not on, adjacent to, or likely to affect land subject to a statutory acknowledgement [s95B(2)(a) and (b) and s95B(3)].

Step 2: Limited notification is precluded in certain circumstances (s95B(5)&(6))

a.	Are any activities in the application subject to a rule in a Plan or National Environmental Standard precluding limited notification?	**No**
b.	Is the application for a controlled activity (other than a subdivision) under the District Plan?	**No**

There is no preclusion to limited notification as there is no rule in the District Plan that precludes limited notification of the application [s95B(6)(a)] and the application is not for a Controlled Activity land use consent [s95B(6)(b)].

Step 3: Certain other persons must be notified (s95B(7)&(8))

a.	For boundary activities, determine under s95E whether an owner of an allotment with an infringed boundary is an affected person.	**No**
b.	For any other activities, determine whether there are any affected persons in accordance with s95E?	**No**

Limited notification is not required as the effects on any person will be less than minor [s95B(8)]. Refer to the assessment of effects and conclusions in section 5 of this report.

Step 4: Limited notification is required under special circumstances (s95B(10))

	Do special circumstances exist that warrant notification of any persons to whom limited notification would otherwise be precluded?	**No**

There are no special circumstances that exist relating to the application that warrant limited notification to any persons who have not been excluded as affected persons by the assessment above [s95B(10)]. There are no special circumstances that warrant limited notification under section 95B(10) because none of the circumstances of the application are exceptional or unusual.

Section 95B Conclusion

Having regard to the steps outlined within Section 95B, limited notification of this application is not required.

RELEASED UNDER THE LOCAL GOVERNMENT AND MEETINGS ACT 1987

5. Assessment of Environmental Effects

5.1 Scope

The following section presents an assessment of environmental effects (AEE) in accordance with Schedule Four of the RMA and is thematically based on the matters of control/discretion listed in **Section 3.7** above. The AEE is comprised of the following components:

- Positive Effects
- Permitted Baseline
- Character Amenity and Streetscape
- Subdivision Design and Servicing Effects
- Construction Effects
- Traffic Effects
- Esplanade Strips and Reserves
- Natural Hazards

5.2 Positive Effects

The proposal will result in the supply of 12 new residential units that will be located in an area identified for residential development. The proposed development will provide a residential typology that will complement the predominant housing typology that is otherwise currently provided for in the district. The development will assist with the provision of residential dwellings to meet identified demand for urban growth. The proposed development will represent an efficient use of the residentially zoned land resource and infrastructure through the use of existing urban services.

The subject application represents a positive use of a valuable resource and can be considered a positive environmental effect resulting from the proposal.

5.3 Permitted Baseline

The permitted baseline allows a consent authority to disregard adverse effects that are the same as could arise from an activity that did not require resource consent. The District Plan permits built development on the site at 85 Ludlam Crescent. To proceed without a resource consent, three residential units could be built on the subject site that comply with the District Plan standards for the High Density Residential Activity Area. The District Plan provides for 22m high buildings and 50% site coverage in the High Density Residential Activity Area. The application includes shading information for three two storied dwellings on the site to demonstrate an example of shading and bulk effects that are permitted by the District Plan. I note that in reality, the District Plan is far more permissive than the example provided and attached at **Appendix B**, however, these drawings are considered sufficient to demonstrate the effects from a compliant development with respect to the subject application.

With regards to subdivision, the permitted baseline provides for minor boundary adjustments that do not create additional allotments. As the proposed subdivision is not a minor boundary adjustment there is no relevant permitted baseline in regard to subdivision.

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5.4 Character, Amenity and Streetscape

The proposed 12 unit development does not comply with the permitted number of dwellings on a site and also has a number of other non-compliances with the ODP building standards. As such, it has the potential to generate adverse effects in terms of character, amenity and streetscape. The assessment is prepared in the context of the planned urban built character for the High Density Residential Activity Area (HDRAA) and includes:

- Number of dwellings;
- Dominance, privacy and shading effects;
- Landscaping, open space and outlook;
- Character, streetscape and visual amenity;
- Signage;
- Amenity effects on surrounding properties

5.4.1 Number of dwellings

The District Plan anticipates high density residential developments on the subject site, being subject to a HDRAA where buildings of six storeys are permitted. Although resource consent is required for more than three dwellings on a site, this does not reflect the level of built development that is anticipated in the HDRAA. Instead, the resource consent requirements reflect that the District Plan provides discretion over design outcomes and living environments for developments with more than three residential units. It is noted that the proposal (with the exception of signage) is a restricted discretionary activity and the multi-unit aspect is precluded from both public and limited notification.

The density of the proposed development is at the lower end of what is anticipated in the HDRAA, and well within what could be anticipated for the site.

Effects in relation to the intensity of development on the site (i.e. the number of dwellings) are less than minor and acceptable.

5.4.2 Dominance, privacy and shading effects

The building coverage of all but three proposed allotments will exceed 50%, but this is as a result of the proposed access lot not contributing to the site area and the new lot areas following subdivision, rather than because the proposal is beyond the level of built development that could be anticipated for the underlying site. The proposal has a building coverage of 552.85m^2 resulting in a building coverage percentage of 41% across the underlying site.

Any potential effects in relation to building coverage are comparable to a permitted development that could occupy 679.5m^2; this is 126.65m^2 greater than is proposed under this application.

The second floor of Block B will encroach into the southern Height in Relation to Boundary (HIRB) recession plane by a maximum of approximately 0.698 meters (measured vertically). Block A and Block B comply with respect to the HIRB at the eastern end of the site due to the more permissive 8m / 60° HIRB. The eaves of Building C encroaching into the HIRB with respect to the northern (north western corner only) and southern boundaries of the site for a maximum height of 1.06m (measured vertically).

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In terms of dominance and privacy, the proposed dwellings have a modest scale and fall well below the 22m permitted height for the site. The application (at **Appendix B**) includes a small scale permitted baseline development of three dwellings that complies with the bulk and location rules of the District Plan. The permitted baseline provided with the application demonstrates that in terms of character and amenity, effects from a permitted development are greater than those from the proposed development. It is noted that if the permitted baseline included 22m high buildings, the additional shading from the compliant development would be even greater.

The first floor of each of the units includes a bathroom and either two or three bedrooms. It will be possible to overlook into adjoining sites to the south, however, this is considered to be of a scale and character anticipated by the planned urban built form for the zone. It is noted that buildings of up to 22m are permitted on the site, but the building proposed are only approximately 7.5m in height. The proposal does not include any upper-level decks and the windows on the first floor are of a modest scale.

Effects in relation to dominance and privacy will be less than minor and acceptable.

5.4.3 Landscaping and onsite amenity

A detailed landscaping plan is attached at **Appendix D** of this application. The whole development has been designed around retaining and incorporating the existing vegetation onsite as far as practicable. In particular, the proposal is to retain eight of the existing nikau palm trees, along with two additional nikau palms which will be transplanted to another location within the site. The tree retention plan is included in Sheet Number L002 of the Landscape Plan. In addition to retaining existing trees, the entire development will be landscaped with small shrubs, mid shrubs, hedging and ground cover. Every unit will have dedicated open space with low level decking and a pergola. The proposal has been designed to be hydraulically neutral, with permeable pavers, aquacomb pods beneath each unit and Cirtex Rainsmart modules in the access lot.

Taking into account the existing tree canopies from the trees that are to be retained, the overall site achieves a landscaped are of 16% or 221m^2. This is approximately 50.8m^2 less than the permitted standard for landscaping. The potential effects from landscaping being less than the District Plan standard of 20% is mitigated by the high quality of the landscaping that is proposed and the retention of existing mature vegetation. There are 12 nikau palms that have been surveyed the site, eight of which are proposed to be retained in their current position, with an additional two trees proposed to be transplanted within the site and retained if possible. These are well established trees and most are approximately 10m in height. The prominence of these trees ensures the character of the area is retained, balances built form with nature and provides significantly greater visual amenity than standard planting.

In terms of open space and amenity for occupants, all of the proposed units have living areas which are on the ground floor providing direct access to ground floor outdoor open space. All outdoor spaces are of a logical and practical size and will receive a good level of sunlight. Due to the narrowing of the site at its western end, relative to the location of proposed Block C, proposed Units 10, 11 and 12 do not achieve the 4m minimum depth dimension required for outlook space from a principal living area, but it is noted that this is achieved in width. This is mitigated by the layout of the development and high quality landscaping that achieves good quality open space and outlook for future residents.

The Urban Design Assessment in **Appendix F** provides a positive assessment in relation to open space and states (page 8):

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- Every Unit will be provided with a private outdoor living area that will be directly accessible from the main internal living area, via glazed doors. For Units 1-4 and 9-12, these will be oriented to the west, for Units 5-8, these will be north facing.
- The outdoor living areas of Units 3, 6, 7, 10 and 11 will not meet the minimum 20m^2 area. However, they will all meet the minimum 3m minimum dimension, and provide sufficient space for the placement of outdoor furnishings, planting and services, in addition to circulation and access.
- The only communal spaces within the site will be associated with shared accesses, either pedestrian or vehicular. These will all receive passive surveillance, either from the kitchen windows of Units 9-12, or the internal and external living areas of Units 1-8, via 1.4m slat fencing. Secondary surveillance of shared areas will also occur from the upper level bedrooms of all the proposed dwellings.
- The shared areas will include planting where possible, and existing trees 1-2, 5-6 and 8 are located within proposed shared areas. Trees 3 and 4 will be located with proposed Lot 4 and tree 7 will be located within proposed lots 11 and 12. The existing trees will aid in integrating the development into the receiving landscape and neighbourhood.

Effects in relation to landscaping and onsite amenity are less than minor and are acceptable.

5.4.4 Character, streetscape and external amenity

This application is accompanied by a supportive urban design report attached at **Appendix F** which concludes that the proposal meets the outcomes sought by the Hutt City Council Urban Policies, i.e. Policy 4G 3.9 i-ix.

Proposed units 1-4 will be the most visible in Ludlam Crescent and have been designed with front doors facing Ludlam Crescent and separate pedestrian paths for each unit. There is no carparking proposed in front of the proposed dwellings, but the carpark for proposed Unit 4 will be visible in the streetscape as it is located directly to the north of proposed Unit 4, adjacent to the front boundary of the site. The proposal has been designed so that vehicles do not dominate the proposal when viewed from Ludlam Crescent.

The Urban Design Assessment (**Appendix F**) states the following in relation to the proposal achieving a positive frontage that engages and interacts with the street with a focus on human activity and scale:

- *Four of the twelve new dwellings will front to the street and will provide improved passive surveillance over the street front, from kitchen windows positioned above the sinks.*
- *New planting is proposed between the public footpaths and the front facade, with trees, to create a setback from the windows and limit views into dwellings, while still allowing views out to the street. Three mature palms will be retained to the northern side of Unit 4 that will be visible from the street front, and will aid in integrating the development into the receiving context.*
- *The proposed planting will also add amenity and softening to the streetscape, again improving the existing condition which is occupied by a solid 1.8m high fence and gate.*
- *The existing vehicle access location will be retained, and widened to allow a two-way entrance and exit. A carpark (Carpark 1) is proposed to the south side of the access, which will be the only carpark visible from the street.*

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- *While there is no dedicated pedestrian-only path from the street to the rear dwellings, a flush path will be defined with surface treatment variation to indicate pedestrian priority access without obstructing vehicle maneuvering space.*
- *Planting will be provided to both sides of the vehicle access for softening and amenity, including species that do not exceed 1m in mature height, so that vehicle sightlines will not be obscured.*

The proposal is of a scale that is consistent with the planned urban form for the zone. Accordingly, the development will contribute to the character of the neighborhood in a manner anticipated by the District Plan.

Effects in relation to character, streetscape and visual amenity are considered to be less than minor and acceptable.

5.4.5 Signage

During construction the proposal includes signage to advertise the sale of the development. Although the signage does not meet the signage provisions in the District Plan, it will be temporary and only on display during the design and construction phases of the project. The proposed sign will be situated on the temporary fencing at the street frontage to advertise the development, expected to be a board (or similar) with site layout and a QR code to the trademe listing. It may also have renders of the development. The proposed signage is expected to be a maximum of 6m^2. The proposed signage will only relate to the development on the subject site and will not include third party advertising.

As the final details of the signage are not yet known, the applicant proffers a condition that prior to the installation of signage advertising the proposal, details of the proposed signage will be submitted to the Council's Compliance and Monitoring Officer for approval.

Given the signage is simply to advertise the proposed development and will be temporary in duration, effects in relation to the proposed signage are considered to be less than minor.

5.4.6 Amenity effects on adjacent properties

Amenity effects are considered in relation to the adjacent properties as identified in Figure 5 below, with 85 Ludlam Cres identified in blue.

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Figure 5: Aerial of subject site and adjacent properties

83 Ludlam Crescent (to the south of the subject site)

The northern boundary of 83 Ludlam adjoins the subject site, and in particular proposed units 1, 5, 6 and 7. The proposal will clearly change the outlook of the subject site when viewed from 83 Ludlam Cresent, however, this is considered to be within the planned urban built form anticipated in the HDRAA.

There is a proposed side yard non-compliance with respect to Unit 1, where Unit 1 will be located 600mm from the boundary shared with 83 Ludlam Crescent. The reason that this setback is required is to provide additional space to the north of proposed Unit 4 to retain an existing mature palm tree that is potentially over 100 years old. Further to enabling the retention of this tree, there are 3 additional mature palm trees within close proximity to Unit 4. The Unit 1 setback infringement consolidates the entirety of block A further away from the structural root zones of all four trees which is crucial for their long-term stability and health. This setback infringement would be indiscernible from the perspective of the neighbouring site, and does not directly adjoin a habitable space (83 Ludlam has its driveway in this location). Any impacts on shading or perception of bulk are much lower than a permitted baseline scenario which allows for an 8m + 60° HIRB recession plane in this location. As has been outlined in the site and proposal description, the overall proposal has been designed to retain and protect the Nikau Palms within the site where possible.

The proposal also has a HIRB non-compliance along the shared boundary with 83 Ludlam Cres in relation to units 5, 6 and 7.

The side yard and HIRB non-compliances of the proposal will not result in shading effects beyond those that could be created by a development that complied with the side yard and HIRB standards in the HDRAA. It is

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noted that the HDRAA provides for buildings of 22m in height and the proposed development is only two storied (maximum of approximately 7.5m in height).

Further mitigating the potential effects of the proposal is the fact that the vehicle access to 83 Ludlam Crescent is adjacent to the boundary shared with 85 Ludlam Crescent.

While it is acknowledged that the proposal will result in some shading to the site at 83 Ludlam Crescent, the shading is less than could occur from a development that complied with the HDRAA bulk and location standards. As such effects on amenity for 83 Ludlam Cresent are considered to be less than minor and acceptable.

87 Ludlam Crescent (to the north of the subject site)

87 Ludlam Crescent adjoins the subject site's northern boundary and this location to the north of the subject site mitigates potential shading effects from the proposal. The proposed development has been designed with its vehicle access to the north of proposed Building A and Building B. The only non-compliance with respect to the northern boundary of the subject site is a small HIRB encroachment from the eve of unit 12 at its north western corner. The effects from this encroachment are considered to be indiscernible when compared to a building that complied with the HIRB. I note that the permitted baseline drawings provided in **Appendix B** could be redesigned to include buildings in the north western corner of the site. With a stepped design, buildings could be 22m in height.

As such effects on amenity for 87 Ludlam Crescent are considered to be less than minor and acceptable.

99 Ludlam Crescent and 160 Woburn Road (to the west of the subject site)

The adjoining site to the west of the subject site is a large property made up of multiple allotments. The directly adjoining allotment (Part Lot 9 DP 5877) is vacant and currently covered in dense vegetation. The main residence and associated buildings (at Lot 3 DP 8212) are located a minimum of 20 metres from the buildings on the subject site. Given the separation distances and the orientation of the buildings at 99 Ludlam Cres / 160 Woburn Road, any potential amenity effects on 99 Ludlam Cres / 160 Woburn Road are considered to be less than minor and are acceptable.

81 Ludlam Crescent (to the south of the subject site)

The northern boundary of 81 Ludlam Crescent adjoins the subject sites southern boundary at its western end. In particular 81 Ludlam Crescent is directly to the south of proposed units 8 and 9. Both units 8 and 9 encroach into the HIRB along the southern boundary. These encroachments are of a small scale (height of 0.63 metres and up to a maximum of 1.06m measured vertically for units 8 and 9 respectively). The permitted baseline drawings in **Appendix B** demonstrate that the effects from a permitted development in terms of shading are comparable to the effects from the proposed development. Furthermore, I note that that permitted baseline drawings could have proposed a development of greatly increased in scale, to include buildings of 22m in height, which would have a far greater effect in terms of shading, bulk and overlooking (amenity). This 22m high building can be taken into consideration by HCC when considering the scale of development anticipated by the planned urban built form for the HDRAA.

I note that the dwelling and outdoor areas associated with 81 Ludlam Crescent are well separated from the subject site (located close to the southern boundary of 81 Ludlam Crescent), with the area adjacent to the subject site being covered in dense vegetation.

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The proposed development is considered to result in effects that are less than the potential effects from a complying development with respect to 81 Ludlam Crescent.

5.4.7 Conclusion

The subject site is located in the HDRAA, a relatively new zone that was introduced though the Intensification Planning Instrument (Plan Change 56) which became operative on 21 September 2023. Over time the residential landscape, particularly in the HDRAA, will change. More intensive developments are anticipated and encouraged in the HDRAA. The proposal is well within a level of development that could be anticipated in the zone and effects on adjoining properties and the wider environment are considered to be less than minor.

5.5 Subdivision Design and Servicing Effects

The proposed subdivision has been designed to reflect the design and layout of the proposed 12 unit development, providing opportunity for each of the proposed dwellings to be in separate ownership, and access (Lot 13 will be amalgamated with Lots 1 – 12 as 12 undivided shares). While the proposal has non-compliances with respect to transport, this is not because the subdivision is poorly designed.

The subdivision will generate no further effects on adjoining properties or the wider environment than those discussed in section 5.4 of this AEE.

The proposal complies with Council requirements pertaining to stormwater, wastewater, and water. The Stormwater Report, attached at **Appendix G**, provides recommendations in relation to stormwater design which have been incorporated into the proposal. This includes providing aquacomb tanks below each unit that incorporate an element of re-use in the proposed dwellings.

Although the proposal does not include 2000l tanks as required by the District Plan, a better outcome is achieved through water reuse proposed in the proposed development and stormwater neutrality is achieved. Permeable concrete will be used in access areas and carparking areas. Soft landscaping is incorporated into the design where possible.

It is expected that appropriate conditions will be imposed on the consent which will require the applicant to install services to the standards of the Council.

Where necessary, easements are proposed to ensure that the occupiers of each allotment have legal and physical access and access to services. The subdivision scheme plan (**Appendix C**) illustrates how servicing and easements will operate.

Given the above factors, any potential effects associated with the design and layout of the proposed subdivision, and associated servicing less than minor and acceptable.

5.6 Construction Effects

Construction works associated with the proposal will generate effects that are anticipated in a residential setting. In addition, the District Plan allows for some additional noise during such times in accordance with NZS 6803P "Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work". Moreover, there is a general duty under section 16 of the Resource Management Act 1991 to avoid unreasonable noise and vibration.

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It is noted that consent has been sought in relation to vibration on a conservative basis given that the standard requires no vibration beyond the boundaries of the subject site. However, it is not expected that the proposal will result in levels of vibration beyond that which would be expected as part of any residential development.

Any potential construction effects such as noise, vibration and traffic are expected to be short in duration and limited to the construction phase of the proposal. Any potential construction effects are therefore considered to be temporary in nature and will be less than minor.

5.7 Traffic Effects

The proposal provides for ten of the 12 units to have a dedicated onsite carpark. In respect of potential traffic and vehicle access effects, the proposal does not meet the relevant standards in Appendix Transport 1 of the District Plan with respect to the distance from Penrose Street and that the refuse truck will need to reverse into the site to collect the rubbish from the dedicated rubbish area. These non-compliances have been considered in the Traffic Assessment by Luke Benner attached at **Appendix H**. Mr. Benner outlines that the proposed non-compliances with respect to transport are acceptable because (see pg. 9 of **Appendix H**):

1. *While the vehicle crossing to the site will be upgraded it will remain in the same position as the existing vehicle crossing with there being no evidence of any resultant road safety concerns.*
2. *Turning movements to and from the upgraded vehicle crossing will be sufficiently offset from the Penrose St intersection, such that there will be no conflict in turning movements.*
3. *Kerbside parking is prohibited along the kerb line fronting the development site, ensuring excellent visibility is achieved in each direction for vehicles exiting the site.*
4. *Rubbish trucks will be able to pull over into the road shoulder before commencing the reversing manoeuvre (as demonstrated in attachment 1) into the site and be visible to other vehicles approaching from the south for at least ~100m providing sufficient time for a driver to react.*
5. *The presence of rubbish trucks within the road shoulder is already a common occurrence on Ludlam Crescent due to existing kerbside rubbish collection.*
6. *Rubbish collection will occur outside of peak periods*
7. *Rubbish truck reversing in off the street has been accepted for other higher yielding developments on High Street and Waterloo Road with similar operational characteristics.*

Mr. Benner's assessment (**Appendix H**) includes vehicle tracking for a rubbish truck and for the proposed vehicle parking spaces and demonstrates that sufficient manoeuvring is provided within the site.

Overall, for the reasons outlined above, the traffic and vehicle access effects of the proposed development will be less than minor and are acceptable.

5.8 Natural Hazards

A Flood Hazard – Inundation Overlay affects the front (eastern) portion of the site. WWL have provided comments recommending a minimum floor level of 3.7m above Mean Sea Level (1953 City Datum). The proposal meets this requirement. I also note that the application includes a Plan Change 1 compliance assessment attached at **Appendix G**.

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The site is flat and not subject to erosion or land slips. It is considered that proposed development will not increase the vulnerability of people or their property to natural hazards.

As such, any potential natural hazard effects associated with the proposal area considered to be less than minor and acceptable.

5.9 Conclusion

Overall, it is considered that with the implementation of the measures proposed in this application (including the appendices) the actual and potential adverse environmental effects of the proposal will be avoided, mitigated or remedied so as to be less than minor and acceptable.

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6. Statutory Assessment

The following assessment is provided in accordance with the relevant sections of the RMA.

6.1 Part 2 (Purposes and Principles) – Sections 5, 6, 7 and 8

In this case, the relevant planning framework has been competently (and recently) prepared, and there is no further need to refer to Part 2.

6.2 Section 104(1)

This section of the RMA requires that, when considering an application for resource consent, the consent authority must have regard to a number of factors, as considered follows:

- Potential or Actual Effects;
- National Environmental Standards;
- Other Regulations;
- National Policy Statements;
- Objectives and Policies of the Regional Policy Statement;
- Objectives and Policies of the Operative District Plan; and
- Objectives and Policies of the Proposed District Plan;
- Other Matters.

6.2.1 Section 104(1)(a) – AEE

This section of the RMA requires that regard is given to any actual and potential effects on the environment of allowing the activity.

An assessment of the actual and potential effects of the proposal is included in **section 5** of this report. It is considered that the adverse effects on the environment will be acceptable.

6.2.2 Section 104(1)(b)(i) – NES's

Section 104(1)(b)(i) of the RMA requires that regard is given to any relevant provisions of a national environmental standard.

There are no national environmental standards relevant to this proposal.

6.2.3 Section 104(1)(b)(ii) – Other Regulations

Under section 104(1)(b)(ii), consideration must be given to any other relevant regulations. No other regulations are relevant to this proposal.

6.2.4 Section 104(1)(b)(iii) and (iv) – National Policy Statements

Under section 104(1)(b)(iii) and (iv), consideration must be given to any relevant provisions of a National Policy Statement (NPS).

The following National Policy Statements are of specific relevance to this proposal.

National Policy Statement on Urban Development

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The NPS-UD is relevant to this proposal. The NPS-UD, which seeks to create well-functioning urban environments through the RMA planning process, has been recently integrated into the District Plan through the recent District Plan review process. The proposal is consistent with the relevant objectives and policies of the NPS-UD.

6.2.5 Section 104(1)(b)(v) – Regional Policy Statement

Section 104(1)(b)(v) of the RMA requires that regard is given to any relevant provisions of a Regional Policy Statement (RPS) or proposed RPS. The proposal is broadly consistent with the objectives and policies of the operative RPS and Proposed Change 1 as it will:

- Manage the effects of earthworks and vegetation clearance on freshwater values.
- Supports a consolidated regional form, design and function with a development that is appropriate to the residential character of the area.
- Will not result in any significant modifications to the natural landforms.
- Will not impact on air quality, fresh water, historic heritage, indigenous ecosystems or soils and minerals.
- Will not increase risk to people from natural hazards.
- Not impact on climate resilience.

6.2.6 Section 104(1)(b)(vi) – Plans or Proposed Plans

Under section 104(1)(b)(vi), regard must be given to any relevant provisions of a plan or proposed plan.

The following sections provide an assessment of the proposal against the relevant objectives and policies in the Operative and Proposed District Plan. The assessment should be read in conjunction with the assessment of effects in **Section 5** above.

6.2.6.1 Operative District Plan

An assessment against the specific zone-based and district wide provisions that are relevant to this proposal is provided below.

Table 4: Relevant Objectives and Policies of the Operative District Plan

Zone Based Objectives and Policies	
RESIDENTIAL ACTIVITY AREAS	
HDRAA – High Density Residential Activity Area	
Objective 4G 2.1	A well-functioning urban environment that enables all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future.
Objective 4G 2.2	Residential Activities are the dominant activities in the High Density Residential Activity Area. Non-residential activities are compatible with the amenity levels associated with high density residential development anticipated by the zone.
Objective 4G 2.3	The High Density Residential Activity Area provides for a variety of housing types and sizes that respond to:

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	i. Housing needs and demand, and ii. The neighbourhood's planned urban built character, including six-storey buildings.
Objective 4G 2.4	The form, appearance, and amenity of neighbourhoods within the High Density Residential Activity Area will change over time to reflect a more intensive urban built form. The High Density Residential Activity Area's planned urban built character is defined through the flexibility of individual developments to take: i. A more intensive scale, form, and typology of development compared with the Medium Density Residential Activity Area, with buildings of at least six storeys being enabled. ii. Greater intensification in proximity to the city's key commercial areas.
Objective 4G 2.5	Built development is of high quality and provides: i. Healthy, safe, attractive, and accessible living environments, and ii. Attractive and safe streets.
Objective 4G 2.6	Built development is adequately serviced by network infrastructure or addresses any infrastructure constraints.
Policy 4G 3.1	Provide for residential activities, and those non-residential activities that support the community's social, economic and cultural wellbeing and manage any adverse effects on residential amenity.
Policy 4G 3.2	Enable a variety of housing types with a mix of densities within the High Density Residential Activity Area, including three-storey attached and detached dwellings, and low-rise apartments.
Policy 4G 3.3	Enable buildings of at least six storeys, with greater height and density enabled around the city's key commercial areas.
Policy 4G 3.6	Require built development to provide occupants with adequate opportunities for outdoor living through having useable and accessible on-site private outdoor living space, or through access to appropriate communal or nearby public open space of comparable utility.
Policy 4G 3.7	Encourage development to contribute to an attractive setting for occupants and the surrounding area, which can be achieved through: i. landscaped areas that contribute to amenity, ii. adequate outlook areas from habitable rooms, and iii. other means that would adequately mitigate a lack of landscaping or outlook areas.
Policy 4G 3.8	Manage the effects of built development on adjoining sites and the street by controlling height, height in relation to boundary, setbacks, and building coverage of built development to ensure adequate provision of privacy and access to sunlight is made to neighbouring residential properties' internal and external living areas, and the effects of building bulk is mitigated or remedied through design responses.
Policy 4G 3.9	Provide for residential intensification of a site where it achieves positive urban design outcomes and living environments, taking into consideration the following design principles, development type, and the planned urban built environment of the High Density Residential Activity Area: i. Ensure the building location, form, and appearance is comprehensively designed with the landscape and is compatible with the planned urban built character of the High Density Residential Activity Area

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	ii. Achieve a positive frontage that engages and interacts with the street with a focus on human activity and scale iii. Achieve visual interest and aesthetic coherence using architectural and landscape design techniques iv. Minimise the effects of driveways, manoeuvring, and parking areas on the quality of the site and street, while ensuring safety v. Integrate building form and open space design to achieve high amenity, safe and functional outcomes for residents in both private and communal spaces, while respectful of neighbouring sites vi. Achieve reasonable sunlight, daylight, and outlook for all residential units and associated outdoor spaces where possible, while minimising overlooking of neighbouring living and private outdoor spaces vii. Provide reasonable internal visual privacy for all units through well-considered location of elements, rather than relying on window coverings viii. Achieve quality, legible, safe, and efficient circulation ix. Provide for servicing that is suitably generous, convenient, and visually discreet.
Policy 4G 3.10	Encourage development to achieve attractive and safe streets and public open spaces, including by providing for passive surveillance.
Policy 4G 3.11	Require rainwater tanks and a minimum area of permeable surfaces or alternative design solutions in order to assist with the management of stormwater runoff created by development.
Policy 4G 3.12	Require development to be stormwater neutral.
Assessment	
The proposal will contribute to a well-functioning urban environment providing additional housing within the existing urban environment. The proposal will provide additional housing choice within the Lower Hutt housing market through the provision of two storey dwellings. The development has good connections between housing and commercial centres, with the site being located in close proximity to central Lower Hutt, and bus stops and train stations located within walking distance. The design of the proposal has a supportive urban design report (**Appendix F**) which has assessed the proposal against Policy 4G 3.9 (see below) and a landscape plan (**Appendix D**) that has been designed to ensure good onsite amenity for occupants. The proposal will be appropriately serviced for three waters, power and telecommunications, as outlined in the Scheme Plan (**Appendix C**). Stormwater tanks (aquacomb pods) are proposed for each existing and proposed dwelling (that incorporate a re-use component), with permeable surfaces also contributing to the management of stormwater on the site. The proposal achieves stormwater neutrality. The proposal is consistent with the above objectives and policies.	
Subdivision Objectives and Policies	
11.1.1 Allotment standards	Objective: To ensure that land which is subdivided can be used for the proposed use or development. Policy:

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	a. To ensure that allotments in the Hill Residential Activity Area, Landscape Protection Residential Activity and rural zones have minimum design standards such as, minimum size, shape and frontage, which are suitable for the proposed use or development. b. To provide flexibility in lot size, shape and frontage within Commercial, Mixed Use, Medium Density Residential and High Density Residential Activity Areas to enable diversity of commercial and residential development size and density.
11.1.2 Engineering Standards	Objective To ensure that utilities provided to service the subdivision protect the environment and that there are no adverse effects on the health and safety of residents and occupiers. Policy a. To ensure that utilities provided comply with specified performance standards relating to such matters as access, street lighting, stormwater, water supply, wastewater, gas, telephone, electricity and earthworks. b. Use engineering practices to maintain the ecological values of Speedy's Stream and the onsite wetland from stormwater runoff resulting from the subdivision of the land identified in Appendix Subdivision 7. c. The engineering practices maintain or improve the ecological values of the onsite streams and the downstream receiving environments from stormwater runoff resulting from the subdivision of the land identified in Appendix Subdivision 8. d. To restrict access and avoid increased traffic volumes from land identified in Appendix Subdivision 8 to Liverton Road, to maintain traffic safety and efficiency.
11.1.3 Natural hazards	Objective: a. To ensure that land subject to natural hazards is subdivided in a manner that the adverse effects are avoided, remedied or mitigated. b. Subdivision does not increase the risk from natural hazards, including coastal hazards. Policy: a. Subdivision of land within the Wellington Fault Hazard Overlay shall ensure that the allotments are of sufficient size and shape so that the building platform is at least 20m from the Wellington Faultline. b. Subdivision shall ensure that any building platform is not located within an identified Stream Corridor. c. Subdivision where building platforms are within overland flow paths shall ensure that overland flowpaths are not impeded and mitigation measures are incorporated into the subdivision to avoid any increase in risk to people or property, including neighbouring properties. d. Subdivision where the building platforms are within the Inundation Area shall include mitigation measures to avoid any increase in risk to people or property, including neighbouring properties. e. Subdivision where the building platforms are within the Medium Coastal Hazard Overlays shall include mitigation measures to avoid any increase in risk to people or property, including neighbouring properties. f. Subdivision of land within high hazard areas within Natural Hazard Overlays and Coastal Hazard Overlays shall be avoided, unless there is an exceptional reason for the subdivision within this area and the subsequent use and development mitigates the impacts from natural hazards to people, property and infrastructure. g. Subdivision of land should be managed to ensure that within each allotment there is a suitable building platform so that buildings and associated structures will not be adversely affected by slope instability, including the deposition of debris.

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Assessment
Each of the proposed residential allotments is of sufficient size and shape to accommodate the proposed dwellings and associated outdoor living areas. Car parking and access allotments are also of a size and shape that are suitable for their proposed use to function effectively. Each residential lot will be appropriately serviced for water, wastewater and stormwater, as well as power and telecommunications. Stormwater neutrality will be achieved. The application site is located within a District Plan identified Inundation Area of the Flood Hazard Overlay, though. WWL have recommended minimum floor levels that the proposal complies with. The application site is not within the Wellington Fault Hazard overlay. The application site is subject to any identified Stream Corridor. The application site is not located within an identified overland flow path. The application site is not subject to any Coastal Hazard overlay, or high hazard area. The application site is not considered to be adversely affected by slope instability due to the flat topography of the site and wider area. The proposal is consistent with the above objectives and policies.

Transport Objectives and Policies	
Objective 14A 3.1	A safe, efficient, resilient and well-connected transport network that is integrated with land use patterns, meets local, regional and national transport needs, facilitates and enables urban growth and economic development, and provides for all modes of transport.
Objective 14A 3.4	Adverse effects on the safety and efficiency of the transport network from land use and development that generate high volumes of traffic are managed.
Objective 14A 3.5	Adverse effects on the safety and efficiency of the transport network from on-site transport facilities (vehicle access, parking, manoeuvring and loading facilities) are managed.
Policy 14A 4.2	Land use, subdivision and development should not cause significant adverse effects on the connectivity, accessibility and safety of the transport network, and, where appropriate, should: • seek to improve connectivity within and between communities; and • enable walking, cycling and access to public transport.
Policy 14A 4.6	Vehicle access, parking, manoeuvring and loading facilities should be designed to standards that ensure they do not compromise the safety and efficiency of the transport network.
Policy 14A 4.7	The transport network, land use, subdivision and development should provide for all transport modes.

Assessment
The design of the proposal is such that it will ensure any potential adverse effects on the safety and efficiency of the transport network are sufficiently mitigated. The subject site is well located for public transport and where possible has included space for bicycle storage. Car parking and access allotments are of a size and shape that are suitable for their proposed use to function effectively. The proposal is consistent with the above objectives and policies.

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Natural Hazard Objectives and Policies	
Objective 14H 1.1 Risk from Natural Hazards	To avoid, reduce or not increase the risk to people, property, and infrastructure from natural hazards and coastal hazards.
Policy 14H 1.1 Levels of Risk	Subdivision, use and development avoid, reduce or do not increase the risk to people, property and infrastructure by: 1. Enabling subdivision, use and development that have low occupancy or small scale within low, medium and high hazard areas within Natural Hazard Overlays and Coastal Hazard Overlays; 2. Requiring subdivision, use and development to mitigate the impacts from natural hazards to people, property and infrastructure in the low hazard and medium hazard areas within the Natural Hazard Overlays and Coastal Hazard Overlays; and 3. Avoiding subdivision, use and development within high hazard areas within Natural Hazard Overlays and Coastal Hazard Overlays, unless there is an exceptional reason for the subdivision, use and development to be located in this area and the activity mitigates the impacts from natural hazards to people, property and infrastructure.
Policy 14H 1.5 New residential units, commercial activities or retail activities within the identified Inundation Areas of the Flood Hazard Overlays	Provide for new residential units, commercial activities or retail activities that are within the Inundation Area, provided that mitigation measures are incorporated to ensure the risk to people and property both on the site and on adjacent properties is not increased or is reduced.
Assessment	
The application site is located within a District Plan identified Inundation overlay and WWL have recommended minimum floor levels that are proposed to be complied with. By complying with the minimum floor level requirements and achieving stormwater neutrality on the site, the proposal is considered to have sufficiently mitigated the potential risks to people and property from natural hazards on the subject site.	
Earthworks Objectives and Policies	
14I 1.1 Natural Character	Objective: To ensure that earthworks are designed to maintain the natural features that contribute to the City's landscape. Policy: a. To ensure that earthworks are designed to be sympathetic to the natural topography. b. To protect significant escarpments, steep hillside areas, and the coastal area by ensuring that earthworks are designed to retain the existing topography, protect natural features, and prevent erosion and slips.
14I 1.2 Amenity, Cultural and Historical Values	Objective: To ensure earthworks do not affect adversely the visual amenity values, cultural values or historical significance of an area, natural feature or site. Policy: a. To protect the visual amenity values of land which provides a visual backdrop to the City.

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	b. That rehabilitation measures be undertaken to mitigate adverse effects of earthworks upon the visual amenity values. c. To protect any sites with historical significance from inappropriate earthworks. d. To recognise the importance of cultural and spiritual values to the mana whenua associated with any cultural material that may be disinterred through earthworks and to ensure that these values are protected from inappropriate earthworks.
Assessment	
The proposed earthworks for the site are purely to prepare the site for the proposed dwellings and do not include any retaining walls or overall changes to the topography of the site, which is flat. The site will be managed to ensure that dust and sediment are well managed and kept within the site. Upon completion of the proposal all earthworks will be covered by the proposed buildings and landscaping.	

Overall, the proposal is consistent with the outcomes directed within the relevant objectives and policies of the Operative District Plan.

6.2.6.2 Proposed District Plan

For completeness, while it is noted that the objectives and policies of the PDP have little to no weight, the proposal is also determined to be consistent with the outcomes directed within the relevant provisions listed below:

High density Residential Zone (HRZ)

- HRZ-O1 -Purpose of the High Density Residential Zoner
- HRZ-O2 – Activities in the High Density Residential Zone
- HRZ-O3 – Provision of housing
- HRZ-O3 – Planned character and planned urban built environment of the High Density Residential Zone
- HRZ-O4 – Planned character and planned urban built environment of the High Density Residential Zone
- HRZ-P1 – Compatible activities
- HRZ-P4 – Provision of housing
- HRZ-P5 – Benefits of sufficient housing capacity and variety
- HRZ-P6 – Streets and open spaces
- HRZ-P7 – Housing needs
- HRZ-P8 – High quality development
- HRZ-P11 – Changing urban environment
- HRZ-P12 – Urban design outcomes by meeting standard or assessment
- HRZ-P14 – Urban design outcomes (exclusions)

Subdivision (SUB)

- SUB-O1 – Subdivision
- SUB-O2 – Subdiovsion design
- SUB-O3 – Servicing of allotments
- SUB-P1 – Benefits of subdivision
- SUB-P4 – Subdivision design and layout
- SUB-P5 – integration of subdivision and development

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- SUB-P6 – Transport network
- SUB-P7 – Servicing and access
- SUB-P10 – Subdivision in residential zones
- SUB-P22 – Subdivision of land in natural hazard risk areas

Transport (TR)

- TR-O1 – Purpose
- TR-P1 – Required transport facilities
- TR-P2 – Enables transport activities
- TR-P3 – Potentially incompatible activities and transport facilities

Natural Hazards – NH

- NH-O1 – Risk from Natural Hazards in Low Natural Hazard Overlays and Medium Natural Hazard Overlays
- NH-P2 – Levels of Risk

Earthworks

- EW-O1 – Earthworks
- EW-P1 – Minor earthworks
- EW-P2 – Appropriate earthworks
- EW-P6 – Earthworks in Overlays and Other Specified Locations

Signs (SIGN)

- SIGN-O1 – Signs
- SIGN-O2 – Signs provide for
- SIGN-P2 – Impacts of signs on the transport network

The proposal is consistent with the outcomes directed within the relevant objectives and policies of the Proposed District Plan. No further assessment is considered necessary given the early stages of this proposed plan.

6.2.6.3 Conclusion

Overall, the proposal is consistent with the outcomes directed within the relevant objectives and policies of the Operative and Proposed District Plans.

6.2.7 Section 104(1)(c) – Other Matters

Section 104(1)(c) of the RMA requires that regard is given to any other matters the consent authority considers necessary to determine the application.

There are no other matters of particular relevance to the consideration of this application.

6.2.8 Section 106

Section 106 of the RMA states that a consent authority may refuse subdivision consent in certain circumstances, or grant a subdivision consent subject to conditions, if it considers that there is a significant risk from natural hazards or if sufficient provision has not been made for legal and physical access to each allotment created by the subdivision.

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The site is identified as being within a Flood Hazard Area – Inundation, and this flood hazard has been incorporated into the design of the proposal with the dwellings designed to meet the minimum floor level as directed by WWL.

Provision has been made for legal and physical access to each allotment.

It is considered that the matters raised under section 106 of the RMA have been met and therefore consent can be granted in terms of this section of the Act.

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7. Conclusion

This application has analysed the proposal in terms of the actual and potential effects on the environment with the conclusion that there are no affected persons and the adverse effects will be less than minor and acceptable.

It is considered that the proposal is consistent with the relevant objectives and policies of the Regional Policy Statement, the Operative District Plan and the Proposed District Plan as well as Part 2 of the RMA. It is therefore considered that the Council can grant the consent, subject to the imposition of appropriate conditions.

We request that draft conditions be circulated to us prior to the release of the resource consent decision.

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85 Ludlam Crescent

William Edmonds

Project No:J1222

Resource Consent

Date issued:
1/10/2025



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Resource Consent
1 October 2025

Sheet Index

No.	Rev	Name
		Cover sheet
RC01	B	Index | Site Location Plan
RC02		Site Plan
RC03		Earthworks plan
RC04		Overall Ground floor plan
RC05	A	Block A | Floor Plans
RC06	A	Block B | Floor Plans
RC07	A	Block C | Floor Plans
RC08	A	Elevations | Block A
RC09	A	Elevations | Block B
RC10	A	Elevations | Block C
RC11		3D View | Block A
RC12		3D View | Block B
RC13		3D View | Block C
RC14		3D Views - Sunlight Access Planes
RC15	A	Sun Study | Summer
RC16	A	Sun Study | Equinox
RC17	A	Sun Study | Winter
RC18		Scheme Plan
RC19		Additional Survey Information

Project Description:

Proposed 12 lot subdivision consisting of:
- 10 x 2 bedroom townhouses.
- 2 x 3 bedroom townhouses.
- Provide weatherboard cladding with box corners and facings around the window to provide a traditional style with hip and gable roofs.

Legal Description:

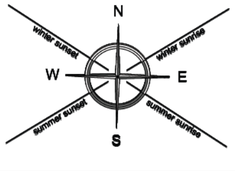
Address:	85 Ludlam Crescent, Woburn, Lower Hutt.
District Plan Zone:	High Density Residential
Lot No.:	1
DP No.:	11523
Legal Description:	ALL DP 11523 WN464/170
Site area:	1359
CT No.:	464/170

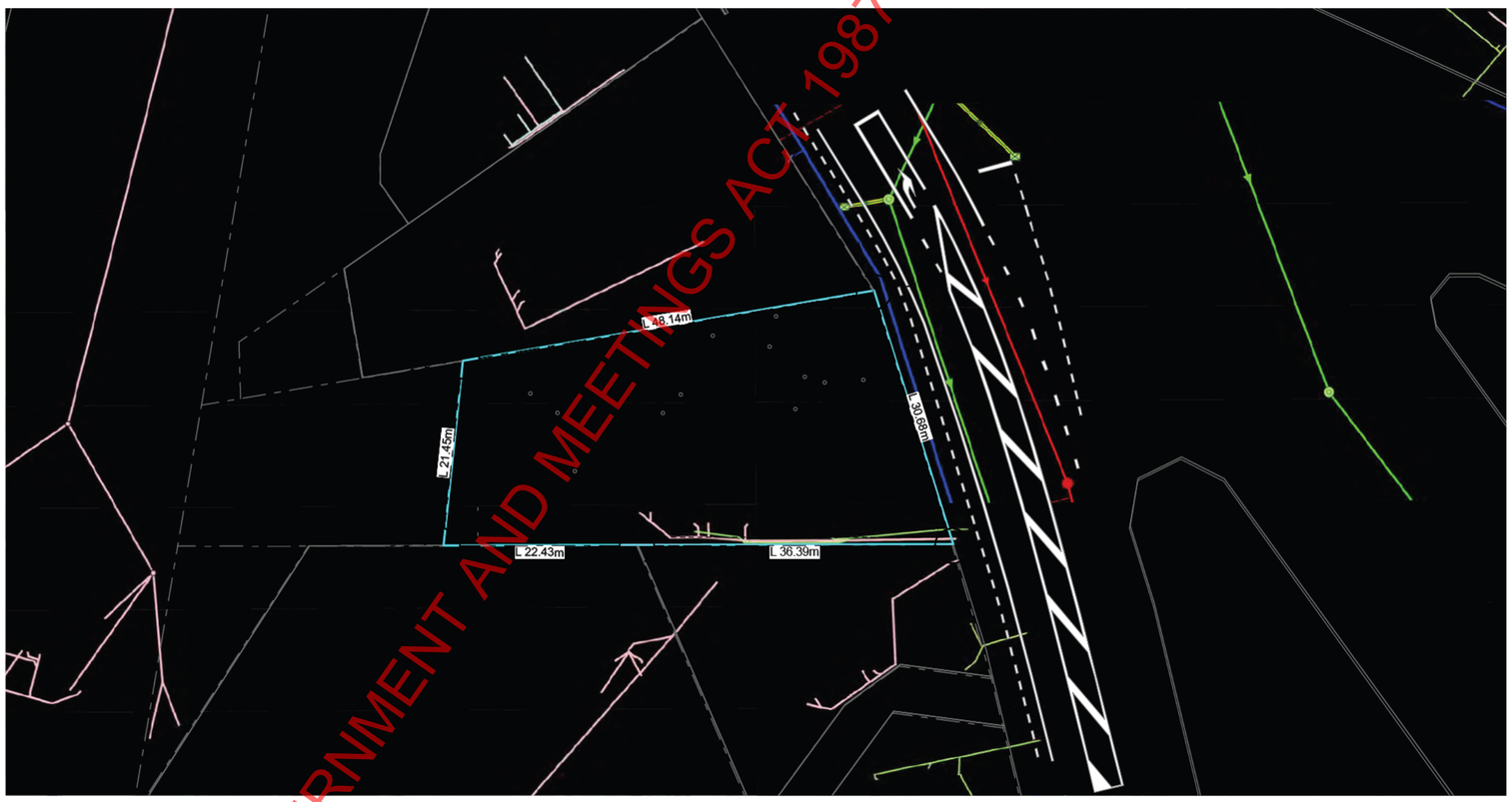
Design Criteria:

Wind zone:	Medium
Earthquake zone:	Zone 3
Exposure zone:	Zone C
Floor load:	1.5 kPa 2kPa 3kPa
Deck load:	2 kPa
Climate Zone:	3
Altitude:	3.3m
Soil type:	Class D – "Deep Soil"
Risk Group:	SH
Flood Zone:	Flood Hazard

Site Coverage Calculation:

Site gross area:	1359 m²
Block A foot print:	171.75 m²
Block B foot print:	204.61 m²
Block C foot print:	176.49 m²
Total building foot print:	**552.85 m²**
Site coverage:	**40.68 %**
Site coverage allowed:	50%





1 Site Location Plan
1:500

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GRAPHIC SCALE 1:200[m]
0 2 4 6 8 10

Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Index | Site Location Plan

RevID	ChID	Change Name	Date
A	-	RFI - Index sheet updated	9/09/2025
	4	RFI 4 - Additional sun studies added	
B	--	Sheet Index updated	1/10/2025

Design: CM	A2 Scale:1:500	SHEET No.	REV No.
Drawn: CP	Date: 1/10/2025	**RC01**	**B**
Checked: GC	Job No: J1222		

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1 Site Plan
1:200

GRAPHIC SCALE 1:200[m]
2 4 6 8 10

Coverage Calculations
Site area: 1359m²
Allowed: 50% (679.5m²)
Actual: 40.68% (552.85m²)

Site Coverage	
	Area
Block A	171.75
Block B	204.61
Block C	176.49
	552.85 m²

Landscaping Calculations
Site area: 1359m²
Required: 20% (271.8m²)
Achieved: 14.88% (202.19m²)

Landscaping Area	
	Area
Landscaping - Along side of unit 9	4.90
Landscaping - between block B & C	26.62
Landscaping - Bewteen unit 12 and park ng	2.57
Landscaping - Block A outdoor living planted areas	30.03
Landscaping - Block B outdoor living planted areas	14.08
Landscaping - Block C outdoor living planted areas	26.08
Landscaping - Driveway / Bin storage	2.07
Landscaping - end of parking bay 6	6.20
Landscaping - Next to Unit 12	4.61
Landscaping - Next to Unit 13	6.91
Landscaping - Street Frontage	47.77
Landscaping - Tree canopy	30.35
	202.19 m²

Legend

- Tree canopy area
- Landscaping area
- Outdoor Living area

Areas Schedule

Site area (m²)		**1,359.00**
Coverage	Block A	171.75
	Block B	204.61
	Block C	176.49
		552.85
Floor area	Block A	302.00
	Block B	363.64
	Block C	306.85
		972.49
Coverage	40.7%	
FAR	0.72	



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Project:	Client:	Contents:	RevID	ChID	Change Name	Date
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Site Plan				

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Tree Protection Zones Legend

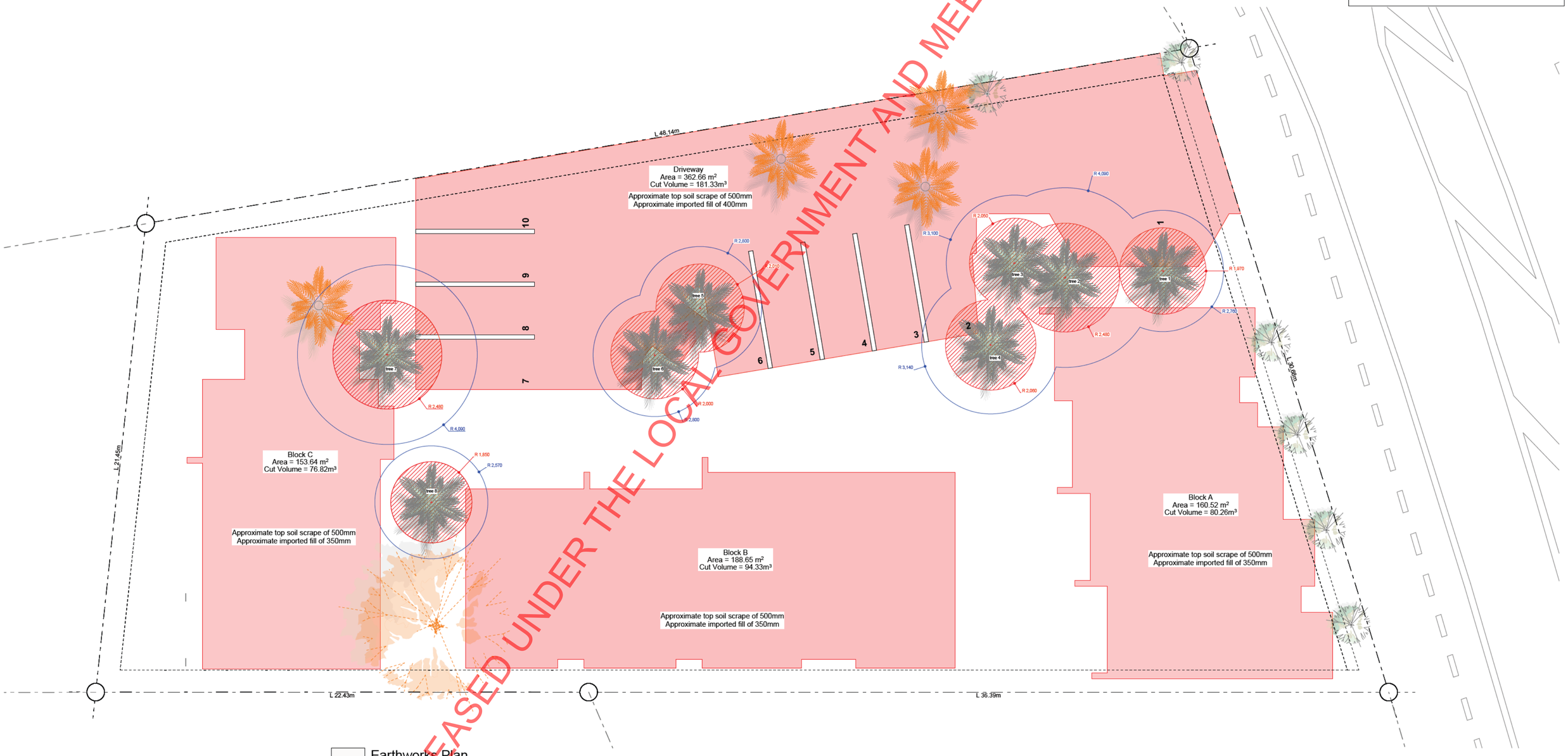
	Tree Protection Zone (TPZ)
	Structural Root Zone (SRZ)

Note: contractor to consult arborist before working in tree zones

Earthworks Legend:

Cut:	
Block A	= 160.52m²
Block B	= 188.65m²
Block C	= 153.64m²
Driveway	= 362.66m²
Total Cut Area	**= 865.47m²**
Block A	= 80.26m³
Block B	= 94.33m³
Block C	= 76.82m³
Driveway	= 181.33m³
Total Cut Volume	**= 432.74m³**

Fill:	
Block A	= 160.52m²
Block B	= 188.65m²
Block C	= 153.64m²
Driveway	= 362.66m²
Total Fill Area	**= 865.47m²**
Block A	= 56.18m³
Block B	= 66.03m³
Block C	= 53.77m³
Driveway	= 145.06m³
Total Fill Volume	**= 321.04m³**



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1 Earthworks Plan
1:125

GRAPHIC SCALE 1:125[m]
0 1 2 3 4 5 6 7

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Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Earthworks plan

RevID	ChID	Change Name	Date

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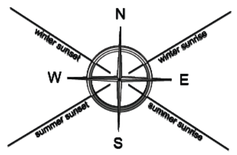
Floor Area Schedule - Block A		
		Area
Ground Floor		
	Unit 1	40.65
	Unit 2	40.80
	Unit 3	38.47
	Unit 4	37.71
		157.63 m²
First Floor		
	Unit 1	37.38
	Unit 2	37.48
	Unit 3	35.08
	Unit 4	34.43
		144.37 m²
		302.00 m²

Floor Area Schedule - Block B		
		Area
Ground Floor		
	Unit 5	50.78
	Unit 6	51.13
	Unit 7	43.35
	Unit 8	42.98
		188.24 m²
First Floor		
	Unit 5	47.14
	Unit 6	47.49
	Unit 7	40.56
	Unit 8	40.21
		175.40 m²
		363.64 m²

Floor Area Schedule - Block C		
		Area
Ground Floor		
	Unit 9	38.27
	Unit 10	38.73
	Unit 11	37.26
	Unit 12	39.37
		153.63 m²
First Floor		
	Unit 9	37.16
	Unit 10	37.59
	Unit 11	38.13
	Unit 12	40.34
		153.22 m²
		306.85 m²





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1 Ground Floor | Floor Plan

1:125

GRAPHIC SCALE 1:125[m]

0 1 2 3 4 5 6 7

Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:	RevID	ChID	Change Name	Date			
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Overall Ground floor plan					MOORE DESIGN	Design: CM Drawn: CP Checked: GC	A2 Scale:1:125 Date: 1/10/2025 Job No: J1222	SHEET No. **RC04** REV No.

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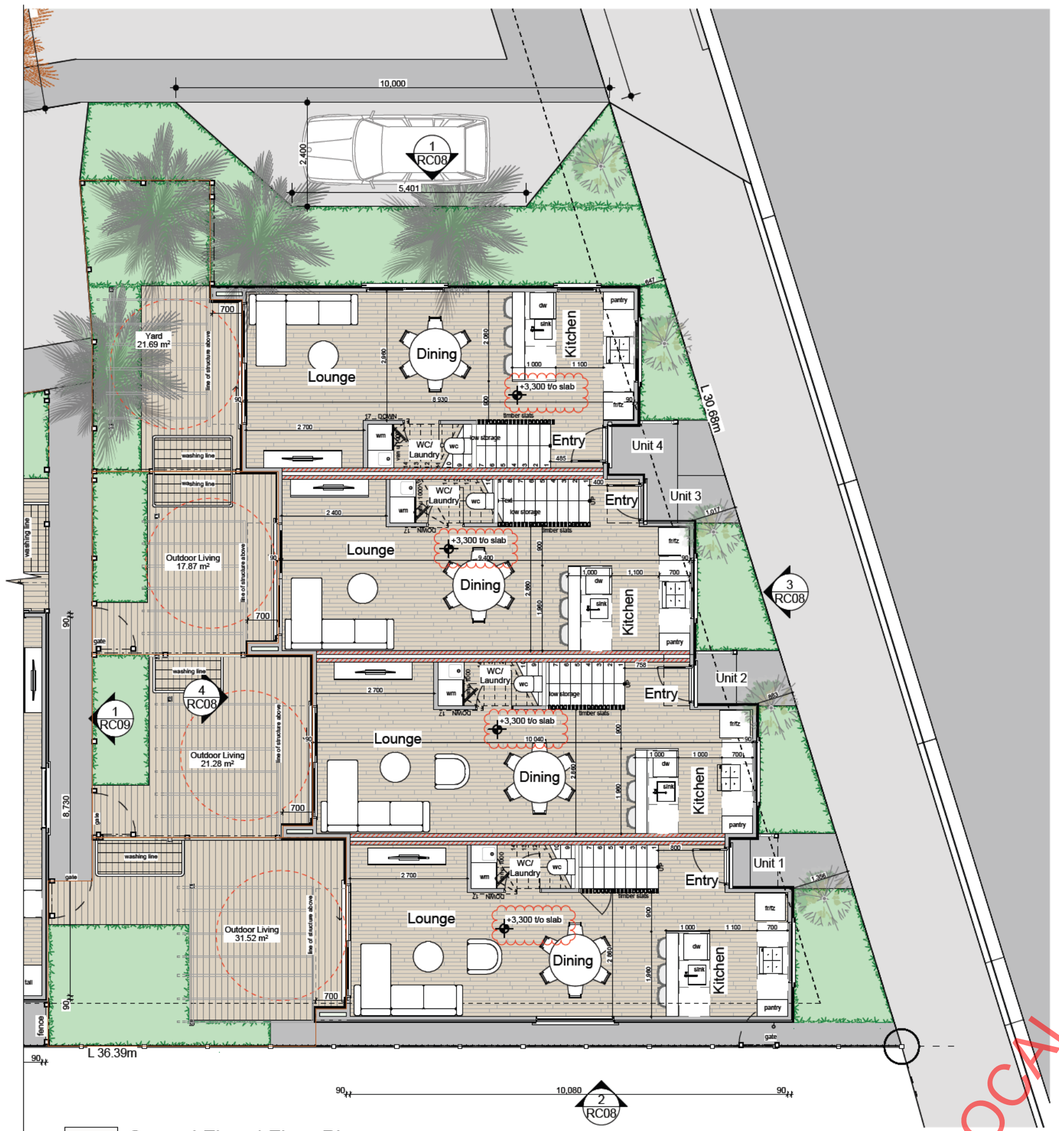
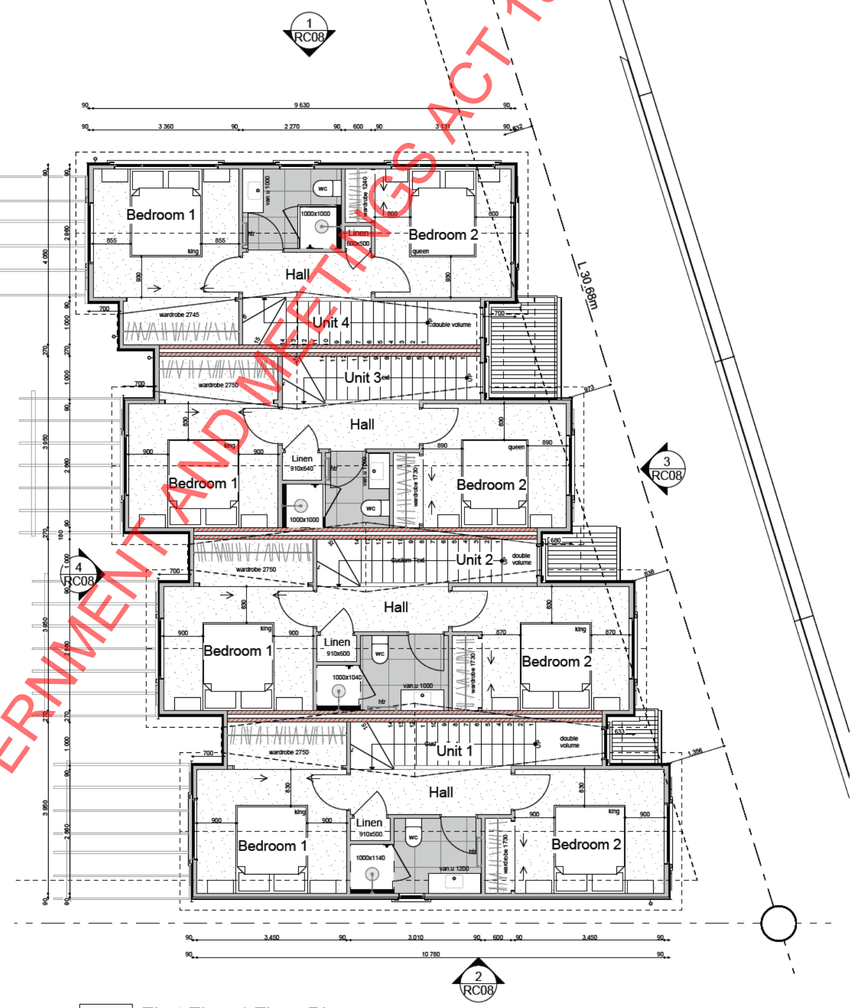


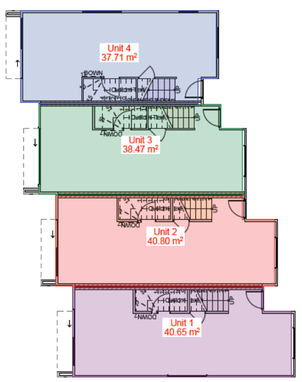
1 Ground Floor | Floor Plan

1:100



2 First Floor | Floor Plan

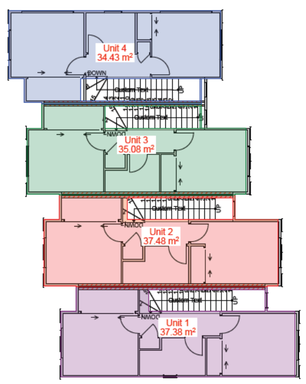
1:100





3 Ground Floor | Area Diagram

1:200



4 First Floor | Area Diagram

1:200

GRAPHIC SCALE 1:100[m]

0 1 2 3 4 5 6

Timber Framing:

Wall Framing Legend:

- indicates new 90 x 45 H1.2 SG8 framing.
- indicates new 140 x 45 H1.2 SG8 framing.
- walls with a dashed line indicate internal Load Bearing Walls. Refer to section
- indicates new FFR 30/30/30 Fire rated wall H1.2 SG8 framing.
- DS — indicates double studs under new beams down to floor level and double studs to take point loads above lintels. Refer to engineers drawings.

REFER TO SECTION B OF NOTES SHEET FOR TIMBER FRAMING NOTES AND INSTALLATION INFORMATION

Floor Area Schedule - Block A		
		Area
Ground Floor		
	Unit 1	40.65
	Unit 2	40.80
	Unit 3	38.47
	Unit 4	37.71
		157.63 m²
First Floor		
	Unit 1	37.38
	Unit 2	37.48
	Unit 3	35.08
	Unit 4	34.43
		144.37 m²
		302.00 m²

Floor Finish Legend:

- Carpet
- Tiles
- Timber Decking
- Timber Flooring

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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Block A | Floor Plans

RevID	ChID	Change Name	Date
A	CH1	CH1 - Slab levels added to plan	1/10/2025

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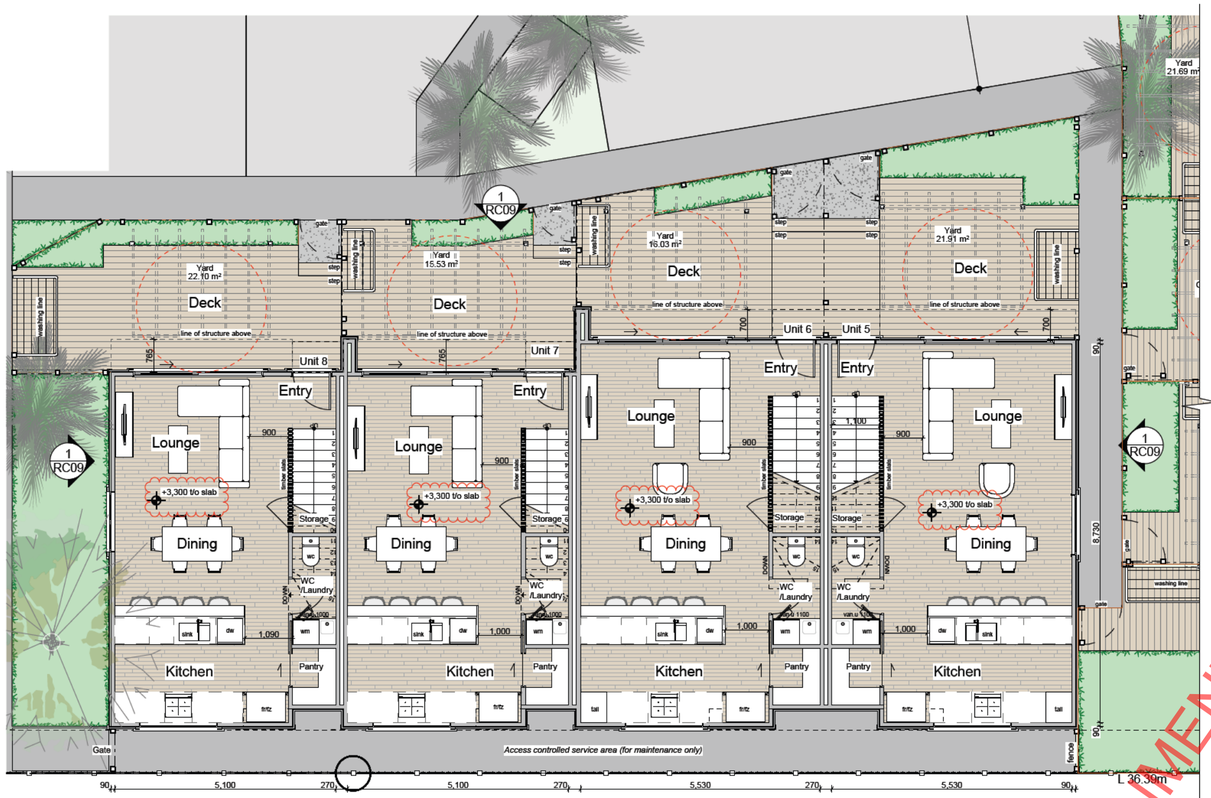
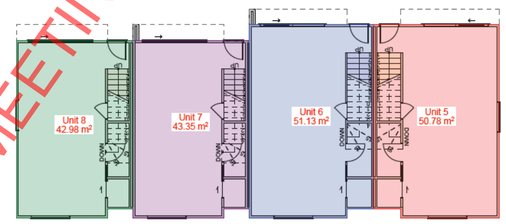
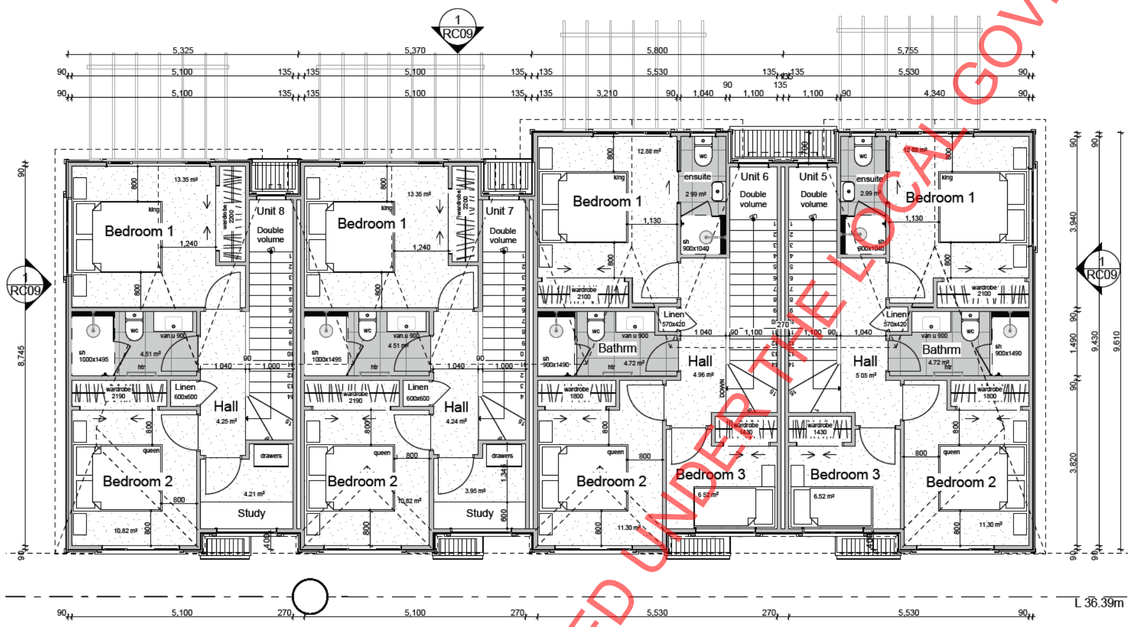


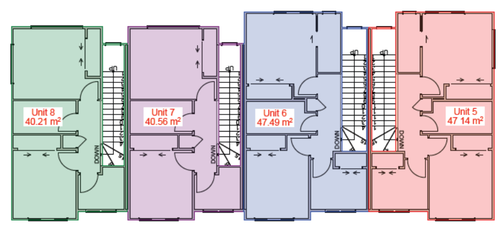
1 Ground Floor | Floor Plan
1:100



2 Ground Floor | Area Diagram
1:200



3 First Floor | Floor Plan
1:100



4 First Floor | Area Diagram
1:200

Timber Framing:

Wall Framing Legend:

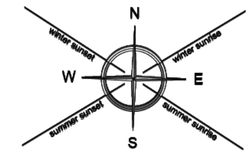
- indicates new 90 x 45 H1.2 SG8 framing.
- indicates new 140 x 45 H1.2 SG8 framing.
- walls with a dashed line indicate internal Load Bearing Walls. Refer to section
- indicates new FFR 30/30/30 Fire rated wall H1.2 SG8 framing.
- DS — indicates double studs under new beams down to floor level and double studs to take point loads above lintels. Refer to engineers drawings.

REFER TO SECTION B OF NOTES SHEET FOR TIMBER FRAMING NOTES AND INSTALLATION INFORMATION

Floor Area Schedule - Block B		
		Area
Ground Floor		
	Unit 5	50.78
	Unit 6	51.13
	Unit 7	43.35
	Unit 8	42.98
		188.24 m²
First Floor		
	Unit 5	47.14
	Unit 6	47.49
	Unit 7	40.56
	Unit 8	40.21
		175.40 m²
		363.64 m²

Floor Finish Legend:

- Carpet
- Tiles
- Timber Decking
- Timber Flooring



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GRAPHIC SCALE 1:100[m] 0 1 2 3 4 5 6

Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Block B | Floor Plans

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RevID	ChID	Change Name	Date
A	CH1	CH1 - Slab levels added to plan	1/10/2025

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM	A2 Scale:1:100, 1:200	SHEET No.	REV No.
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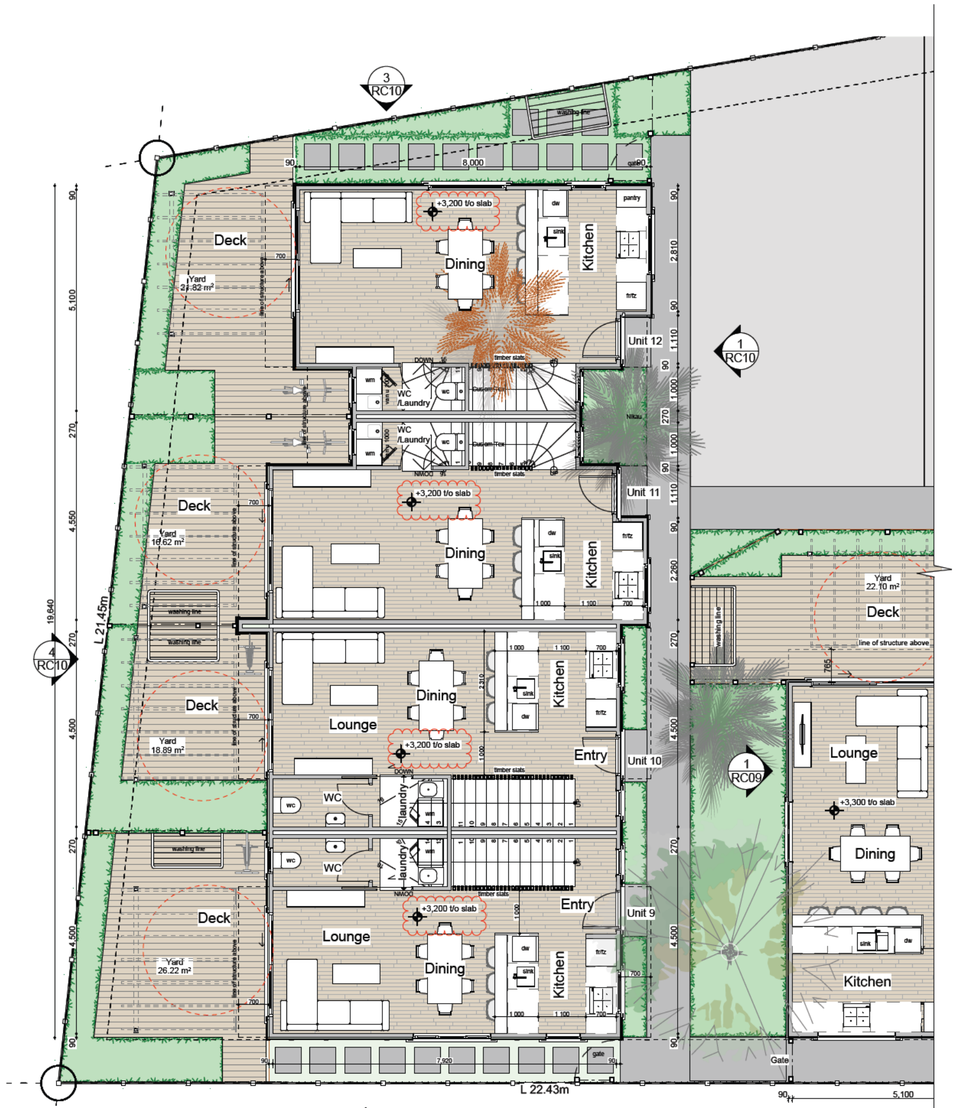
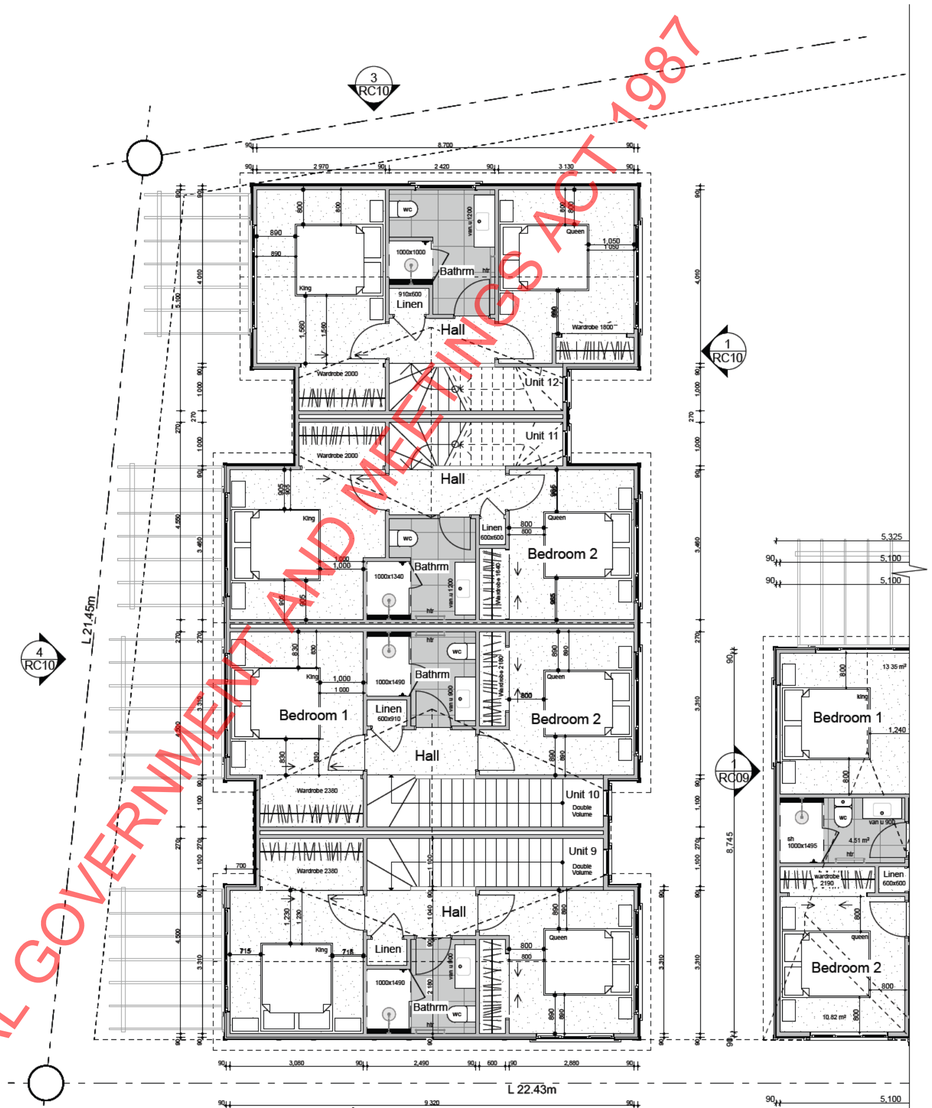
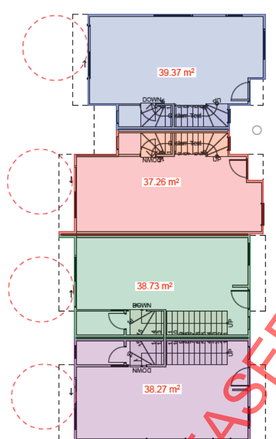


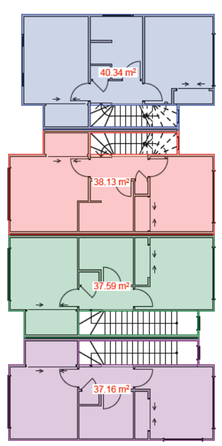
1 Ground Floor | Floor Plan
1:100



3 First Floor | Floor Plan
1:100



2 Ground Floor | Area Diagram
1:200



4 First Floor | Area Diagram
1:200

Timber Framing:

Wall Framing Legend:

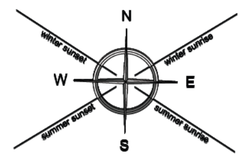
- indicates new 90 x 45 H1.2 SG8 framing.
- indicates new 140 x 45 H1.2 SG8 framing.
- walls with a dashed line indicate internal Load Bearing Walls. Refer to section
- indicates new FFR 30/30/30 Fire rated wall H1.2 SG8 framing.
- DS — indicates double studs under new beams down to floor level and double studs to take point loads above lintels. Refer to engineers drawings.

REFER TO SECTION B OF NOTES SHEET FOR TIMBER FRAMING NOTES AND INSTALLATION INFORMATION

Floor Area Schedule - Block C		
		Area
Ground Floor		
	Unit 9	38.27
	Unit 10	38.73
	Unit 11	37.26
	Unit 12	39.37
		153.63 m²
First Floor		
	Unit 9	37.16
	Unit 10	37.59
	Unit 11	38.13
	Unit 12	40.34
		153.22 m²
		306.85 m²

Floor Finish Legend:

- Carpet
- Tiles
- Timber Decking
- Timber Flooring



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GRAPHIC SCALE 1:100[m] 0 1 2 3 4 5 6

Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Block C | Floor Plans

RevID	ChID	Change Name	Date
A	CH1	CH1 - Slab levels added to plan	1/10/2025

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM	A2 Scale:1:100, 1:200	SHEET No.	REV No.
Drawn: CP	Date: 1/10/2025	RC07	A
Checked: GC	Job No: J1222		

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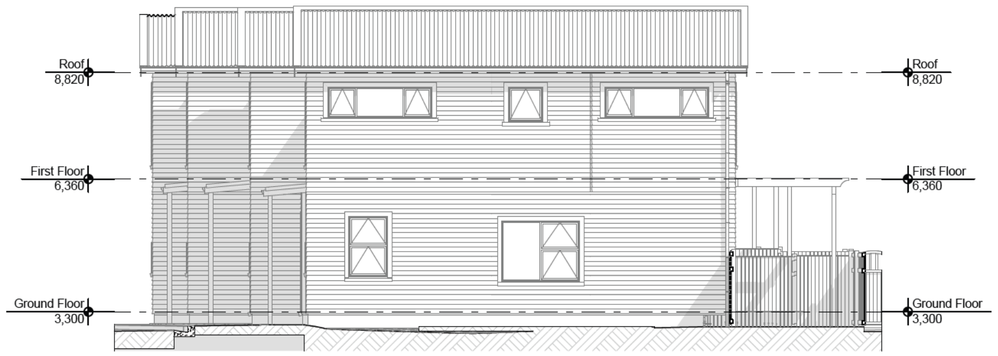
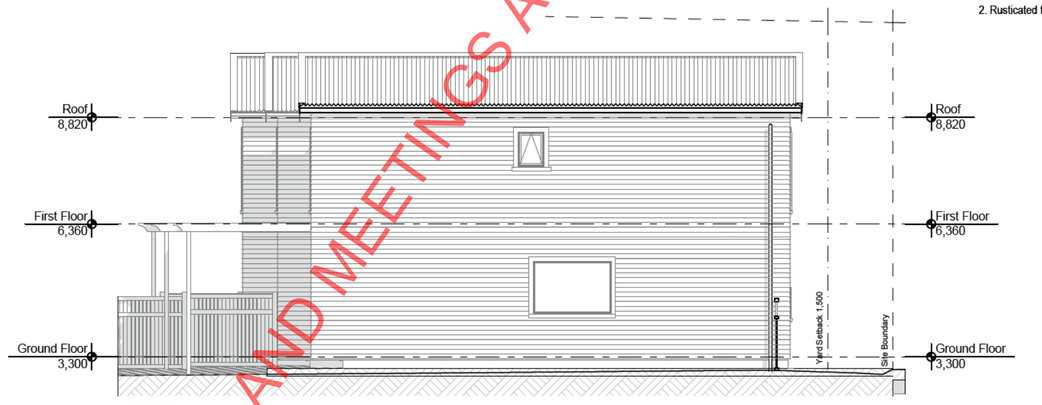
Risk Factor	Description	Risk	Score
Wind Zone	Medium	L	0
Number of Storeys	2-Storey	H	2
Roof/Wall Intersection Design	Fully protected (e.g. hip and gable roof with eaves)	L	0
Eaves Width	100mm - 450mm wide	VH	5
Envelope Complexity	Moderately complex shape with no more than 2 cladding types.	M	1
Deck Design	Timber slat deck at ground floor level	L	0
			Total Score: 8

Selected Claddings:

1. Bevel back timber weatherboard over nominal 20mm drained cavity
2. Rusticated timber weatherboard over nominal 20mm drained cavity



1 Block A | North Elevation
1:100



2 Block A | South Elevation
1:100



3 Block A | East Elevation
1:100



4 Block A | West Elevation
1:100

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GRAPHIC SCALE 1:100[m]
0 1 2 3 4 5 6

Project: 85 Ludlam Crescent, Woburn, Lower Hutt	Client: William Edmonds	Contents: Elevations | Block A

RevID	ChID	Change Name	Date
A	3	RFI 3 - Levels updated to NZVD 2016	1/10/2025

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM	A2 Scale:1:100	SHEET No.	REV No.
Drawn: CP	Date: 1/10/2025	RC08	A
Checked: GC	Job No: J1222		

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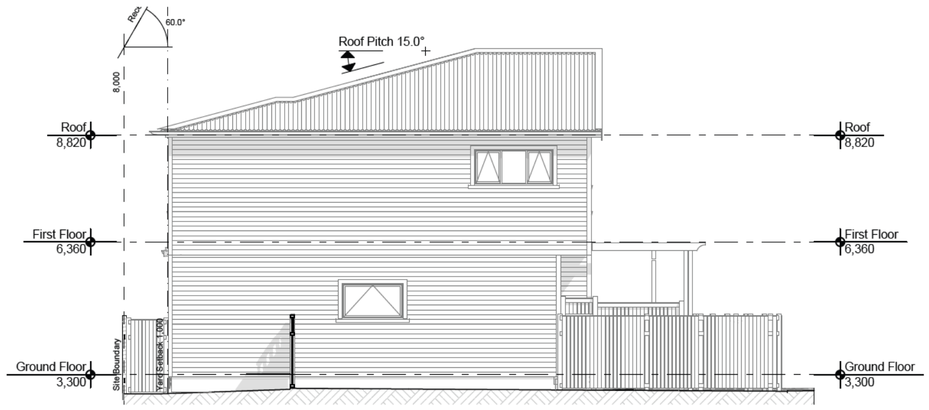
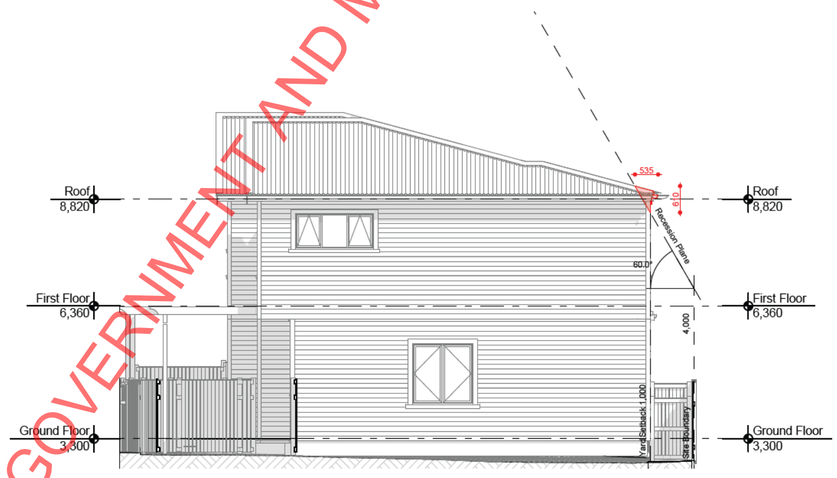
1 Block B | North Elevation
1:100



1 Block B | East Elevation
1:100



1 Block B | West Elevation
1:100



1 Block B | South Elevation
1:100

GRAPHIC SCALE 1:100[m]
0 1 2 3 4 5 6

Risk Factor	Description	Risk	Score
Wind Zone	Medium	L	0
Number of Storeys	2-Storey	H	2
Roof/Wall Intersection Design	Fully protected (e.g. hip and gable roof with eaves)	L	0
Eaves Width	100mm - 450mm wide	VH	5
Envelope Complexity	Moderately complex shape with no more than 2 cladding types.	M	1
Deck Design	Timber slat deck at ground floor level	L	0
		Total Score:	8

Selected Claddings:
1. Bevel back timber weatherboard over nominal 20mm drained cavity
2. Rusticated timber weatherboard over nominal 20mm drained cavity

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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Elevations | Block B

RevID	ChID	Change Name	Date
A	3	RFI 3 - Levels updated to NZVD 2016	1/10/2025

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM | A2 Scale:1:100 | SHEET No. RC09 | REV No. A
Drawn: CP | Date: 1/10/2025
Checked: GC | Job No: J1222

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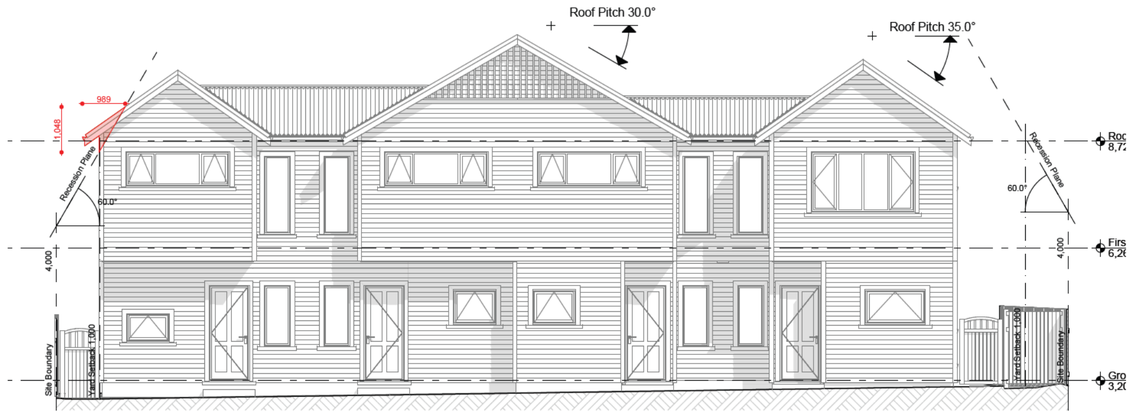
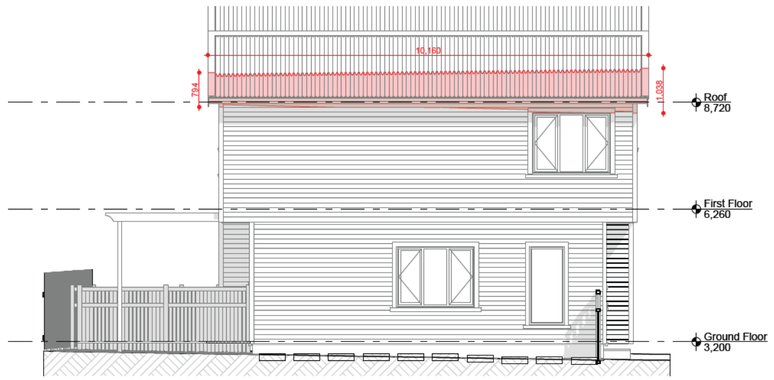
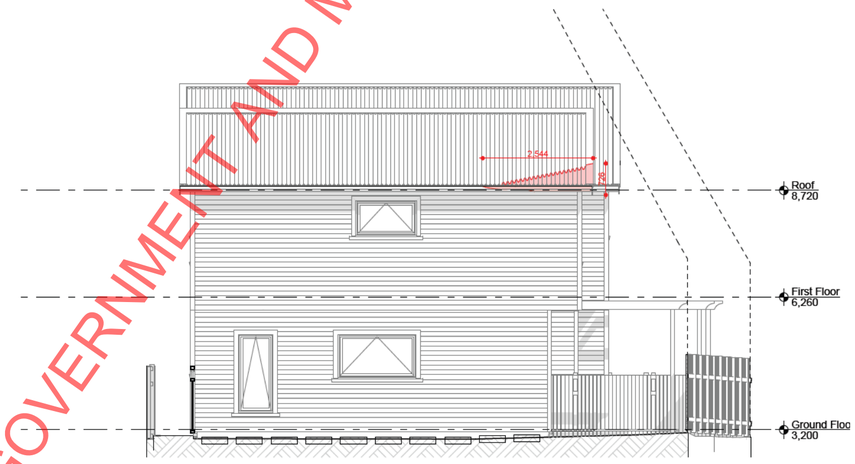


1 Block C | East Elevation
1: 00



2 Block C | South Elevation
1:100



3 Block C | North Elevation
1:100



4 Block C | West Elevation
1:100

Risk Factor	Description	Risk	Score
Wind Zone	Medium	L	0
Number of Storeys	2-Storey	H	2
Roof/Wall Intersection Design	Fully protected (e.g. hip and gable roof with eaves)	L	0
Eaves Width	10 mm - 450mm wide	VH	5
Envelope Complexity	Moderately complex shape with no more than 2 cladding types.	M	1
Deck Design	Timber slat deck at ground floor level	L	0
		Total Score:	8

Selected Claddings:
1. Bevel back timber weatherboard over nominal 20mm drained cavity
2. Rusticated timber weatherboard over nominal 20mm drained cavity

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GRAPHIC SCALE 1:100[m]
0 1 2 3 4 5 6

Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Elevations | Block C

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RevID	ChID	Change Name	Date
A	3	RFI 3 - Levels updated to NZVD 2016	1/10/2025

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM	A2 Scale:1:100	SHEET No.	REV No.
Drawn: CP	Date: 1/10/2025	RC10	A
Checked: GC	Job No: J1222		

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1 Block A - View 1



1 Block A - View 2

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Project:	Client:	Contents:	RevID	ChID	Change Name	Date		Design: CM	A2 Scale: N/A	SHEET No.	REV No.
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	3D View | Block A					MOORE DESIGN	Drawn: CP	Date: 1/10/2025	**RC11**	
								Checked: GC	Job No: J1222		

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1 Block B - View 1



1 Block B - View 2

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Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:	RevID	ChID	Change Name	Date					
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	3D View | Block B					MOORE DESIGN	Design: CM Drawn: CP Checked: GC	A2 Scale:N/A Date: 1/10/2025 Job No: J1222	SHEET No. **RC12**	REV No.

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1 Block C - View 1



1 Block C - View 2

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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: 3D View | Block C

RevID	ChID	Change Name	Date

MOORE DESIGN

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM	A2 Scale: N/A	SHEET No.	REV No.
Drawn: CP	Date: 1/10/2025	**RC13**	
Checked: GC	Job No: J1222		

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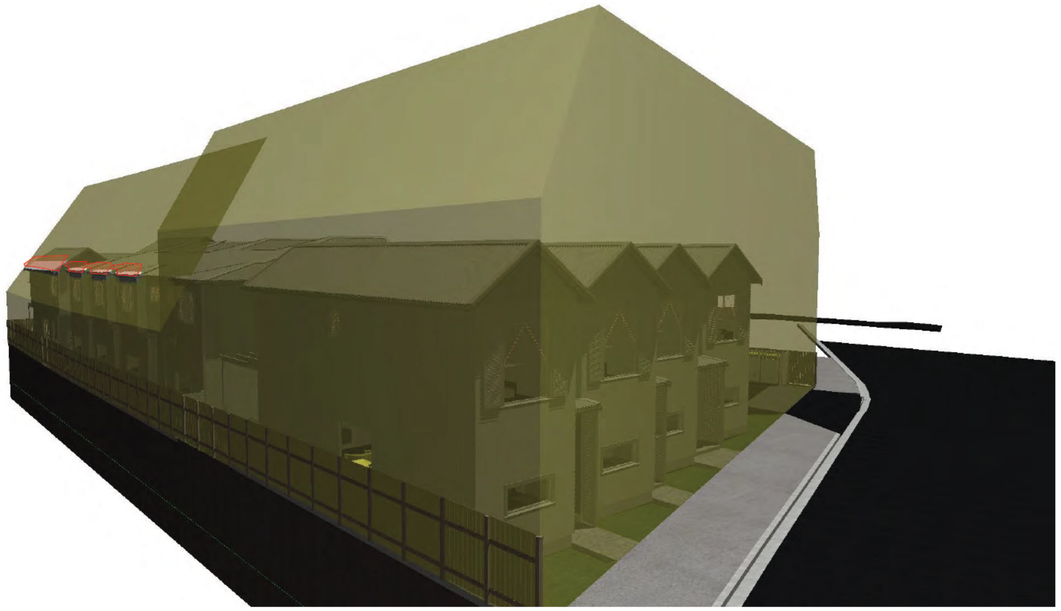
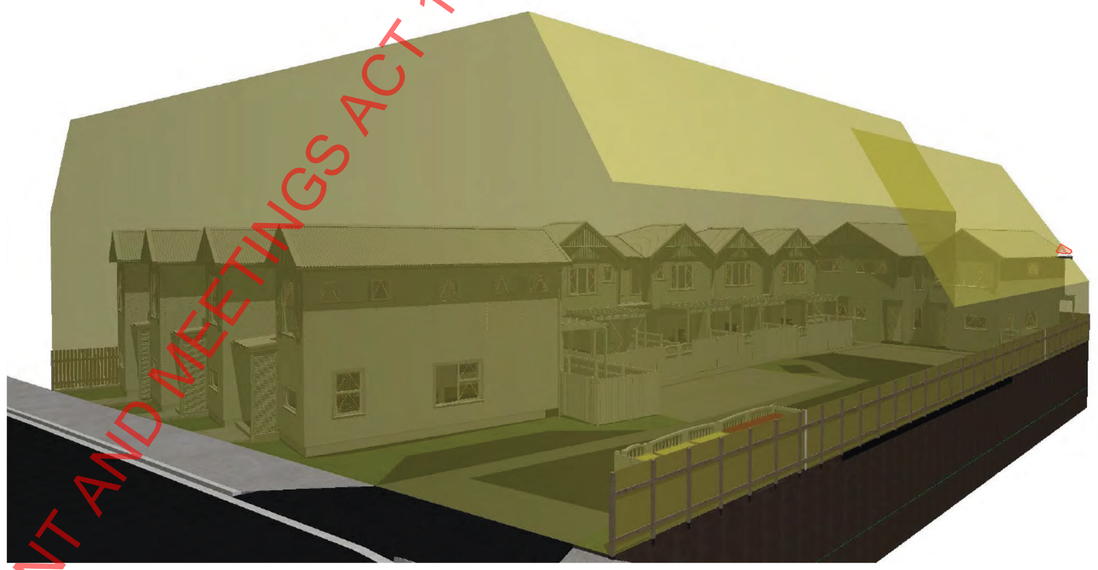
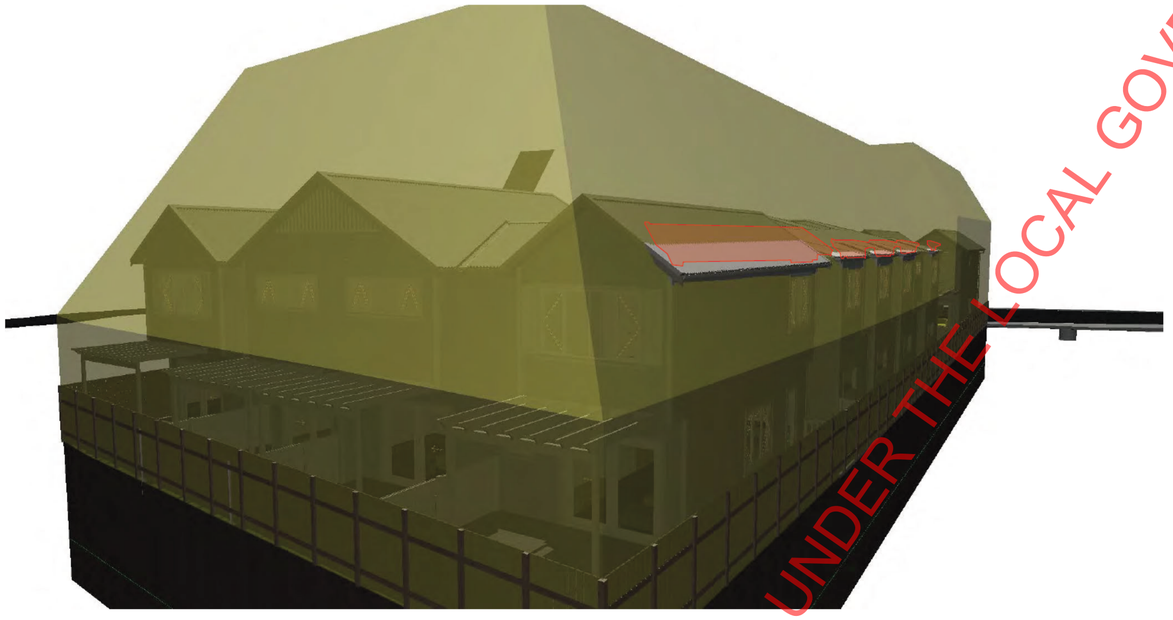


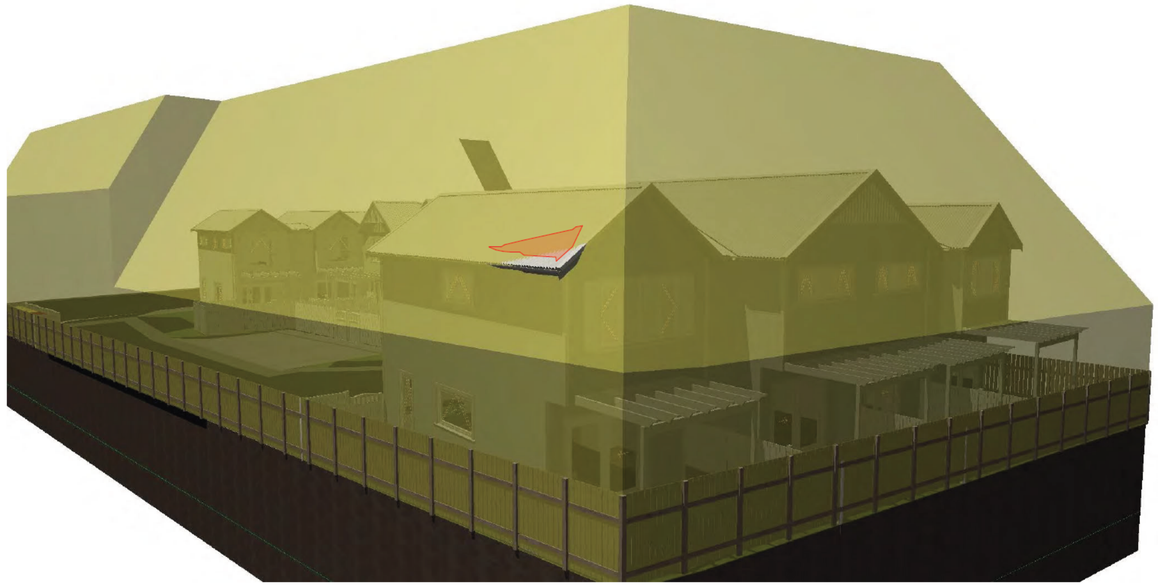
1 South East Perspective



2 North East Perspective



3 South West Perspective



4 North West Perspective

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Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:	RevID	ChID	Change Name	Date					
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	3D Views - Sunlight Access Planes					MOORE DESIGN	Design: CM Drawn: CP Checked: GC	A2 Scale: N/A Date: 1/10/2025 Job No: J1222	SHEET No. RC14	REV No.

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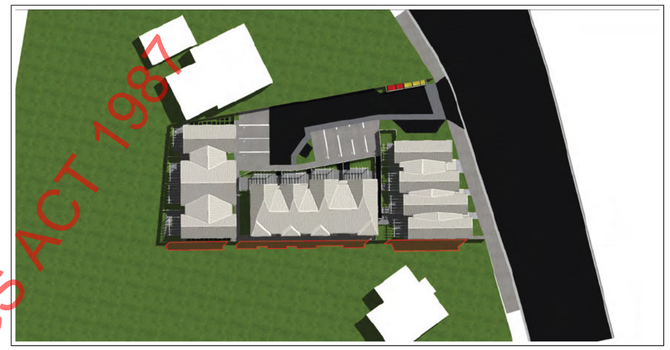
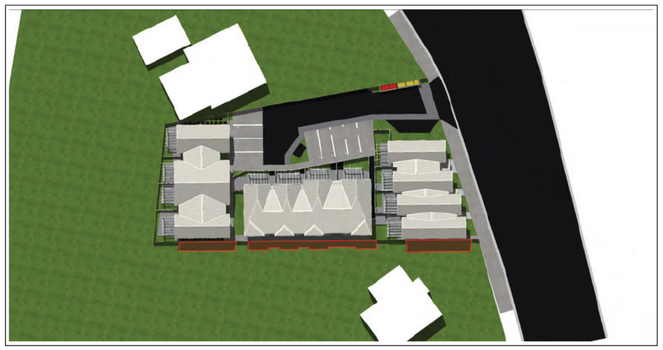
1 Summer 08h00



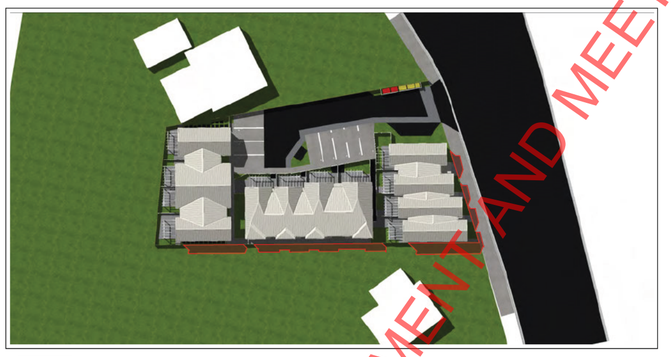
2 Summer 10h00



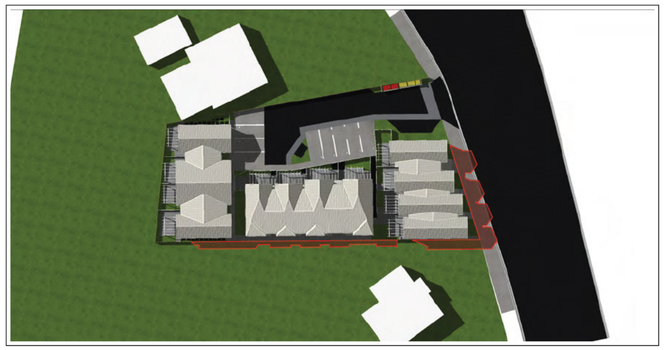
3 Summer 12h00



4 Summer 14h00



6 Summer 15h00



5 Summer 16h00



7 Summer 17h00

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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Sun Study | Summer

RevID	ChID	Change Name	Date
A	4	RFI 4 - Additional sun studies added	9/09/2025

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Design: CM | A2 Scale: N/A | SHEET No. RC15 | REV No. A
Drawn: CP | Date: 1/10/2025
Checked: GC | Job No: J1222

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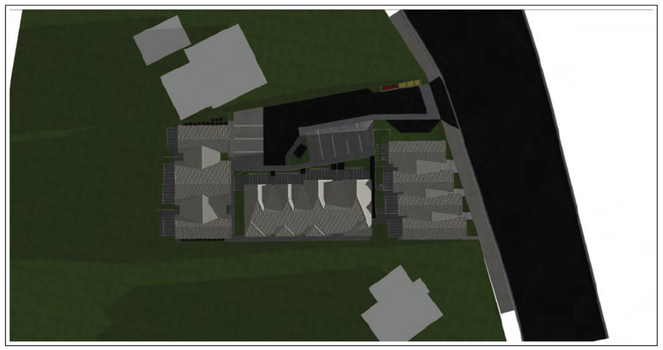
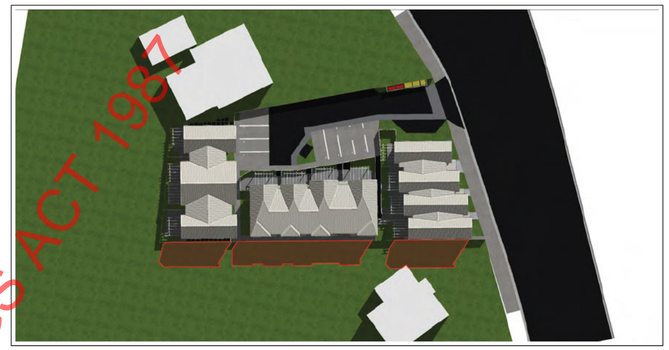


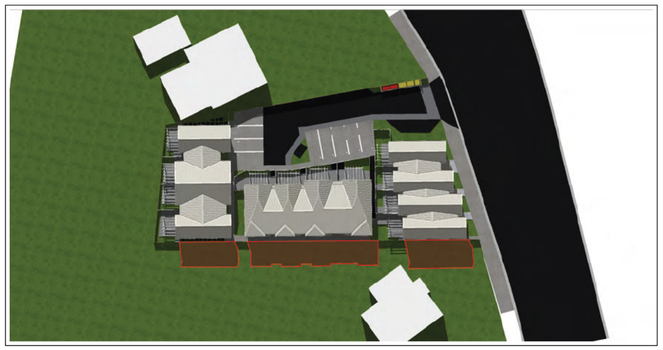
1 Equinox 08h00



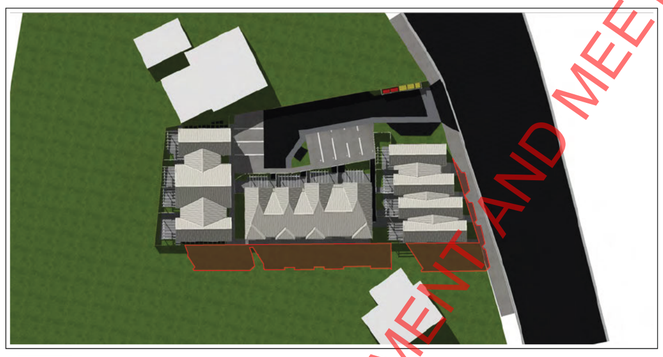
2 Equinox 10h00



3 Equinox 12h00



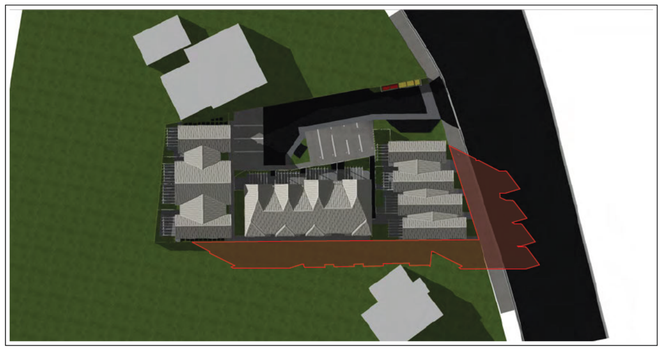
4 Equinox 14h00



5 Equinox 15h00



6 Equinox 16h00



7 Equinox 17h00

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Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:	RevID	ChID	Change Name	Date
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Sun Study | Equinox	A	4	RFI 4 - Additional sun studies added	9/09/2025

MOORE DESIGN

Design: CM	A2 Scale: N/A	SHEET No.	REV No.
Drawn: CP	Date: 1/10/2025	RC16	A
Checked: GC	Job No: J1222		

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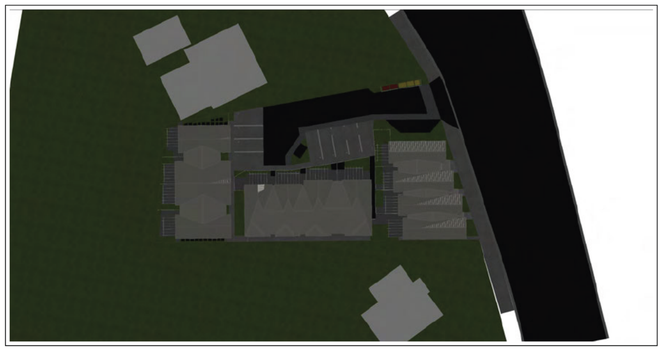
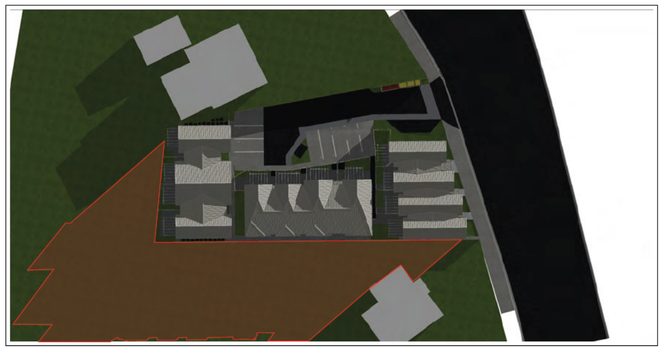
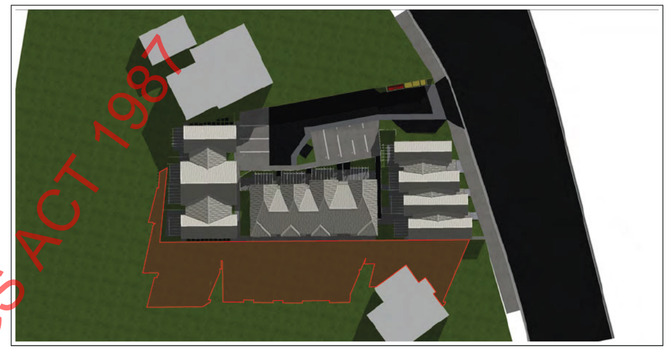


1 Winter 08h00



2 Winter 10h00



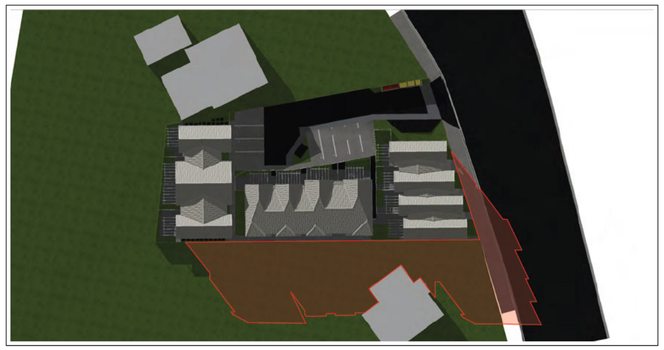
3 Winter 12h00



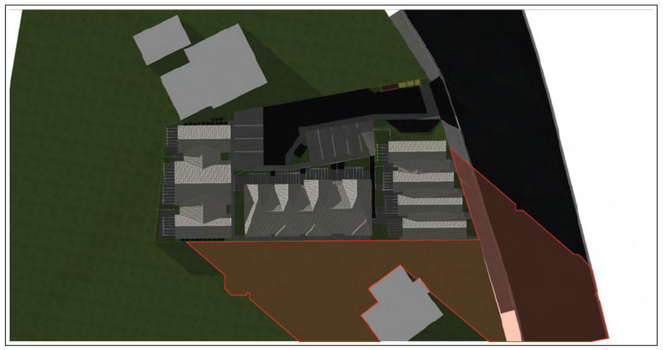
4 Winter 14h00



5 Winter 15h00



6 Winter 16h00



7 Winter 17h00

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53 am 1/10/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Resource Consents/J1222 - 85 Ludlam Crescent - RC - 29.05.2025

ARTISTIC IMPRESSION ONLY

Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Sun Study | Winter

RevID	ChID	Change Name	Date
A	4	RFI 4 - Additional sun studies added	9/09/2025

MOORE DESIGN

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM	A2 Scale: N/A	SHEET No.	REV No.
Drawn: CP	Date: 1/10/2025	RC17	A
Checked: GC	Job No: J1222		

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Plan set uses colour representation.

p: 04 5665002 e: cam@mooredesign.nz w: www.mooredesign.nz

NOTES:

1. HEIGHTS ARE IN TERMS OF NEW ZEALAND WELLINGTON VERTICAL DATUM 1953.
   ORIGIN OF HEIGHTS IS: PENROSE STREET (BDNG), RL=3.96m, SOURCED: CONVERTED FROM LINZ GEODETIC DATABASE NEW ZEALAND VERTICAL DATUM 2016 HEIGHT OF RL=3.576m, SOURCED DATE: 11 FEB 2025.
   SITE BENCHMARK IS: RM I FB 4553 P29, BRASS PLAQUE UNDER CAST IRON COVER IN FOOTPATH, RL=3.17m
2. "SPOT HEIGHT" POSITIONS ARE SHOWN IN THE FOLLOWING FORMAT x36.24 AND ARE EXPRESSED IN METRES IN TERMS OF THE SITE DATUM FOR THE SURVEY.
   THE HEIGHTS OF THESE POSITIONS HAVE AN ACCURACY RELATIVE TO THE SITE DATUM AS FOLLOWS:
   - HARD SURFACES EG CONCRETE, ASPHALT +/- 0.030m @ 95% CONFIDENCE LEVEL.
   - SOFT SURFACES EG GRASS +/- 0.050m @ 95% CONFIDENCE LEVEL
3. NOT ALL SPOT HEIGHTS HAVE BEEN SHOWN ON THIS PLAN FOR CLARITY.
4. CONTOURS SHOWN ON THIS SURVEY ARE INTERPOLATED FROM SURVEYED "SPOT HEIGHT" POSITIONS. THEREFORE THE LOCATION AND VALUES OF THE CONTOUR MODEL IS DEPENDENT ON THE DENSITY OF THE SURVEYED SPOT HEIGHTS. THIS SURVEY DEPICTS A CONTOUR INTERVAL OF 0.50m WITH AN ACCURACY RELATIVE TO THE HEIGHT DATUM OF +/- 0.25m AT A 95% CONFIDENCE LEVEL.
5. UNLESS SHOWN OTHERWISE, UNDERGROUND SERVICE INFORMATION SHOWN ON THIS PLAN IS DIGITIZED FROM HUTT CITY COUNCIL GIS INFORMATION AND HAS NOT BEEN VERIFIED BY THE SURVEYING COMPANY (WELLINGTON) LTD. THE LOCATION OF UNDERGROUND SERVICES SHOULD BE LOCATED BY THE CONTRACTOR PRIOR TO ANY WORK BEING CARRIED OUT.
6. WHERE INFORMATION SHOWN ON THIS PLAN IS USED FOR SUNLIGHT ACCESS/HEIGHT PLANES WHICH ARE CRITICAL, GROUND LEVELS SHOULD BE CONFIRMED BY ADDITIONAL SURVEY OF THE CRITICAL POINTS ON THE GROUND.
7. ALL SURVEYED TREES SHOWN ON THIS PLAN ARE NIKAU PALMS, SOME NIKAU PALMS MAY NOT HAVE BEEN SURVEYED.

LOCAL AUTHORITY	HUTT CITY COUNCIL
CURRENT ZONING	HIGH DENSITY RESIDENTIAL (WITH FLOOR HAZARD OVERLAY)
TOTAL AREA	1359m² (RT AREA)
COMPRISED IN RT	WN464/170
REGISTERED OWNERS	NEROLE JOCELYN DAVIES

PART LOT 2
DP 6062
#87 LUDLAM CRESCENT

LOT 1
DP 11523
#85 LUDLAM CRESCENT

PART LOT 9
DP 5877
#160 WOBURN ROAD

LOT 2 DP 48214
#81 LUDLAM CRESCENT

LOT 1
DP 48214
#83 LUDLAM CRESCENT

LUDLAM CRESCENT

VEHICLE CROSSING

SITE BENCHMARK
RM I FB 4553 P29
BRASS PLAQUE UNDER CAST
IRON COVER IN FOOTPATH
RL=3.17m

DOWN PIPE DISCHARGES TO GROUND

SEAL DRIVEWAY

FLUSH NIB KERB

KERB AND CHANNEL

CONCRETE FOOTPATH

SHED

CARPORT

SOAK PIT
-0.54

DWELLING
APPROXIMATE GROUND LEVEL FOOTPRINT 179m²
APPROXIMATE UPPER LEVEL FOOTPRINT 113m²

GARAGE

POWER PILLAR

CHORUS CABINETS AND MANHOLES

LL=3.80
IL=NOT OBTAINED

LL=3.54
IL=NOT OBTAINED

SWOUT

VEHICLE CROSSING

259°27'05"
269°00'10"
161°49'55"
5°06'00"

LEGEND:

× 77.80	SPOT HEIGHT	D	DOWN PIPE	77.80	EDGE OF SEAL
MH	MANHOLE	SWOUT77.80	STORMWATER OUTLET		BUILDING
W	TOBY	⊗	VENT	EA77.80	EAVE
	SUMP	G	GULLY TRAP	DK77.80	DECK
		P	POWER PILLAR	SL77.80	SOFFIT
		T	CHORUS PILLAR		
			GATE		
			TREE		
		77.80	FENCE		

SS	SEWER MAIN / LATERAL (SCALED HCC GIS)	-77.80	STORMWATER MAIN / LATERAL (CCTV)
-77.80	SEWER MAIN / LATERAL (CCTV)	W	WATER MAIN / LATERAL (SCALED HCC GIS)
SW	STORMWATER MAIN / LATERAL (SCALED HCC GIS)		

THIS PLAN HAS BEEN PREPARED FOR THE PURPOSE OF SHOWING TOPOGRAPHICAL INFORMATION TO PLOT SCALE ONLY. UNAUTHORISED USE OR COPYING OF THIS PLAN FOR ANY OTHER PURPOSE IS NOT PERMITTED WITHOUT PRIOR CONSENT OF THE SURVEYING COMPANY (WELLINGTON) LIMITED. AREAS AND DIMENSIONS SHOWN ON THIS PLAN ARE SUBJECT TO CONFIRMATION BY FINAL SURVEY. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK. REFER ANY DISCREPANCIES TO THE SURVEYING COMPANY (WELLINGTON) LIMITED.

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THE SURVEYING COMPANY
YOUR LAND DEVELOPMENT CONSULTANTS
0800 TO SURVEY (0800 86 78 78) e-mail: projects@subdivision.net.nz
Cnr. King & Main Streets, PO Box 40083, Upper Hutt
ph: 04 527 9028

TOPOGRAPHICAL SURVEY OF
85 LUDLAM CRESCENT, LOWER HUTT
PREPARED FOR WILL EDMONDS

SCALE:	1:200 @ A3
CHECKED:	
FIELDWORK:	BLS 12 FEB 2025
DRAWN:	BLS 13 FEB 2025
JOB/DRAWING NUMBER	35176
	Sheet 1 of 1

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 EDMONDS TOPO.dwg Tuesday, 18 February 2025 8:01:40 am

85 Ludlam Crescent

William Edmonds

Project No:J1222

Resource Consent

Date issued:
9/09/2025



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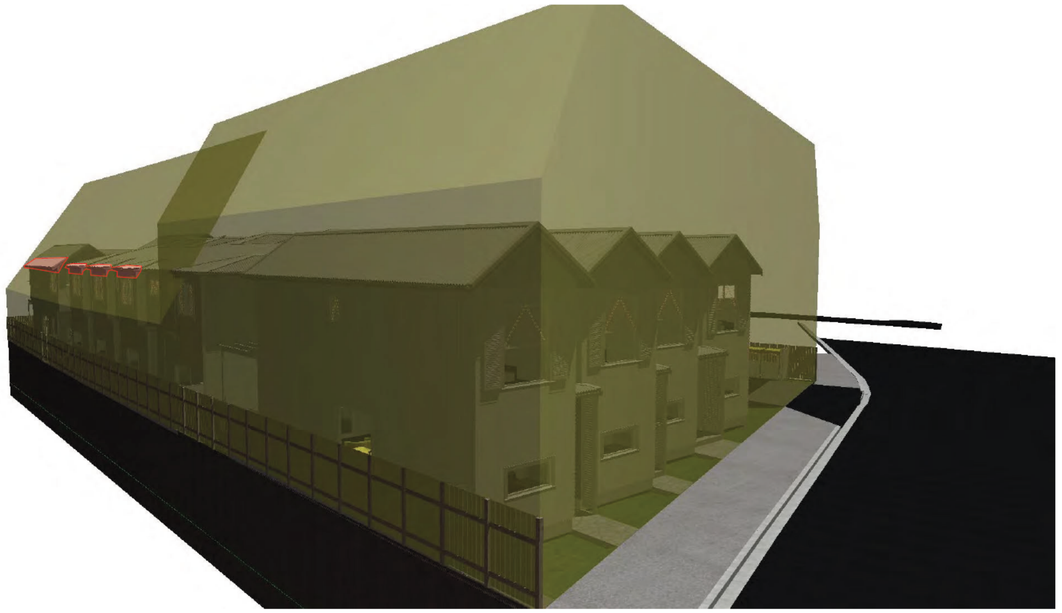
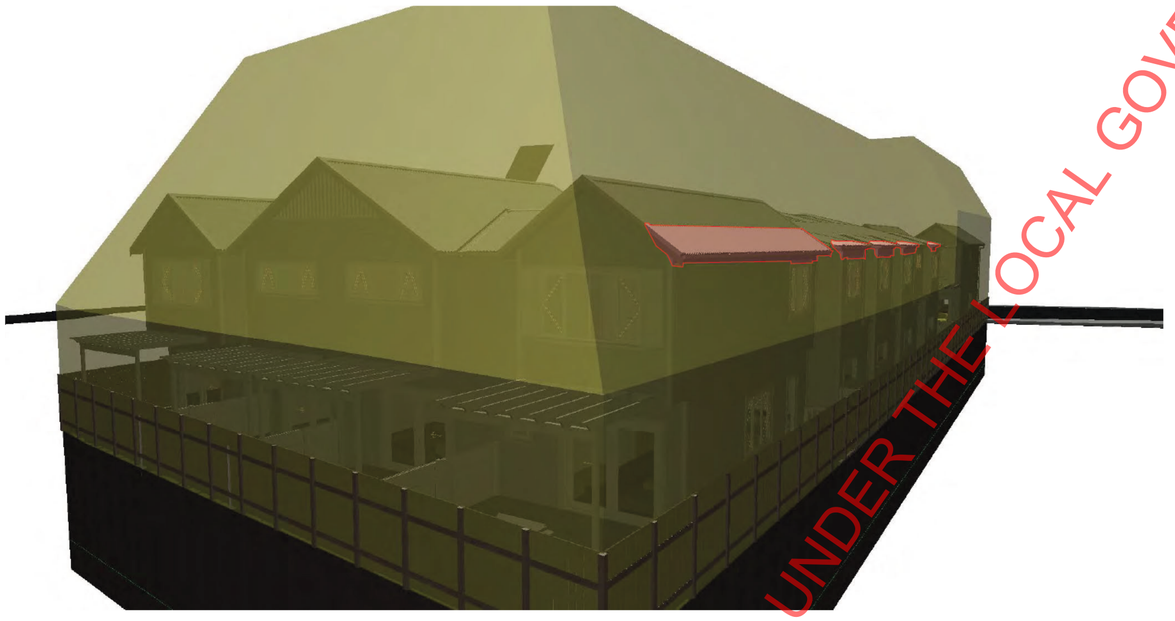


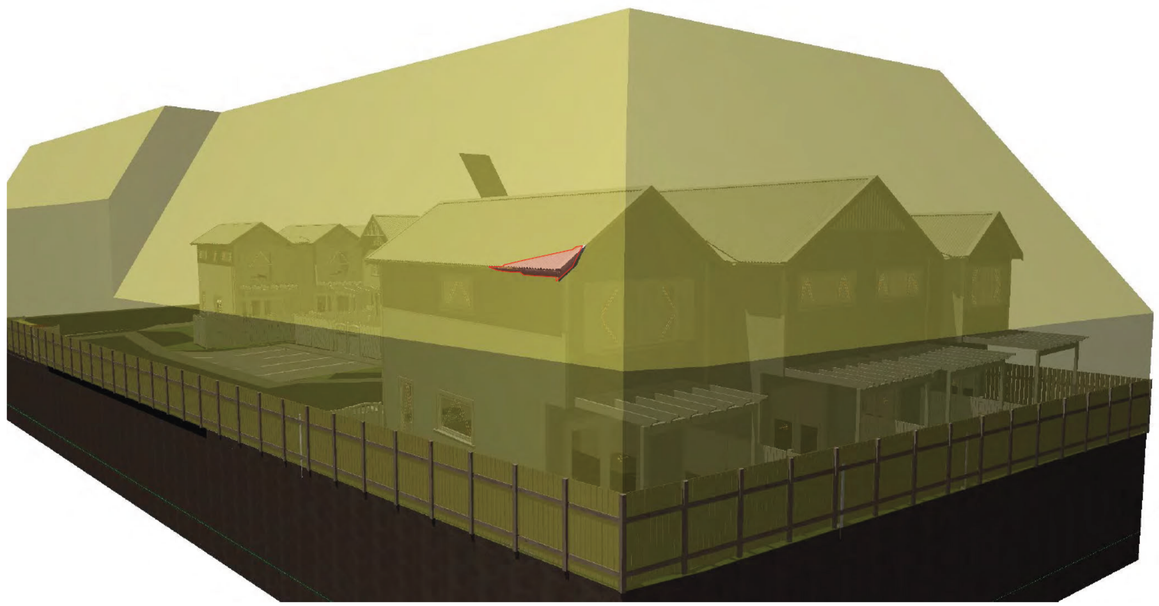
1 South East Perspective



2 North East Perspective



3 South West Perspective



4 North West Perspective

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©25 am 9/09/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Resource Consent/J1222 - 85 Ludlam Crescent - RC - 29.05.2025

ARTISTIC IMPRESSION ONLY

Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: 3D Views - Sunlight Access Planes

Plan set uses colour representation.

RevID	ChID	Change Name	Date

MOORE DESIGN

Contractor to check dimensions on site prior to fabrication & construction.

Design:	CM	A2 Scale:	N/A	SHEET No.	REV No.
Drawn:	CP	Date:	9/09/2025	RC14	
Checked:	GC	Job No:	J1222		

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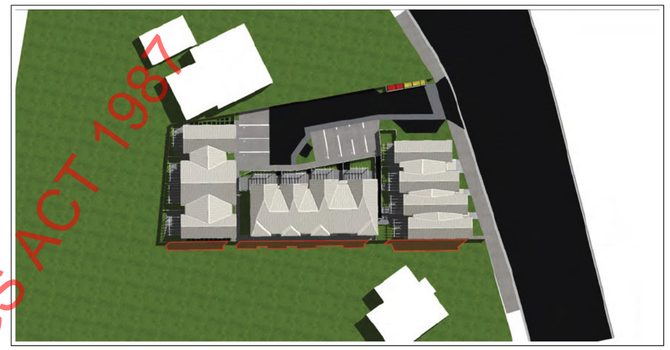
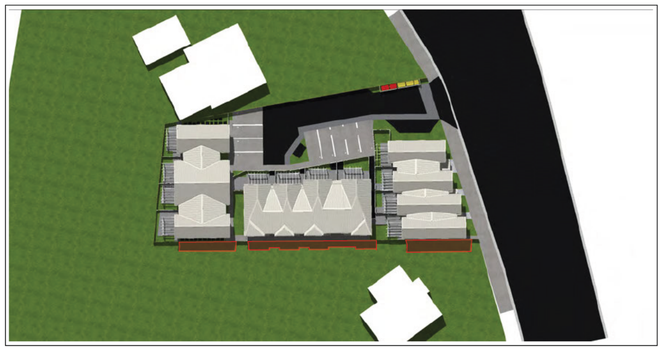
1 Summer 08h00



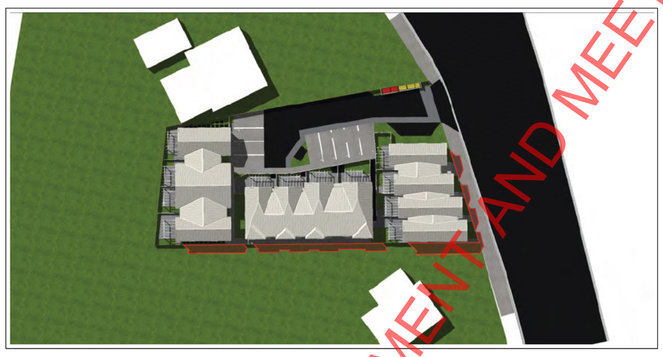
2 Summer 10h00



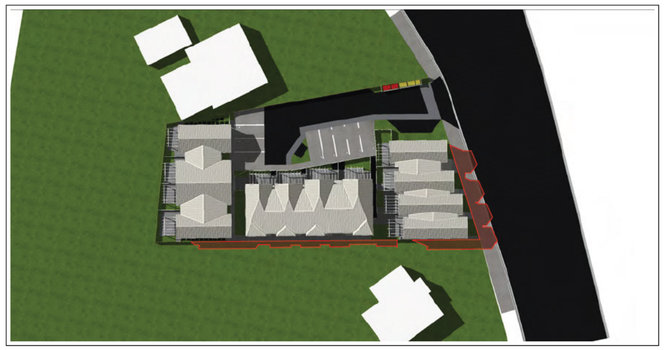
3 Summer 12h00



4 Summer 14h00



6 Summer 15h00



5 Summer 16h00



7 Summer 17h00

RELEASED UNDER THE LOCAL GOVERNMENT AND MEETINGS ACT 1987

10:25 am 9/09/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Resource Consent/J1222 - 85 Ludlam Crescent - RC - 29.05.2025

ARTISTIC IMPRESSION ONLY

Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:	RevID	ChID	Change Name	Date
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Sun Study | Summer	A	4	RFI 4 - Additional sun studies added	9/09/2025

MOORE DESIGN

Design: CM	A2 Scale: N/A	SHEET No.	REV No.
Drawn: CP	Date: 9/09/2025	RC15	A
Checked: GC	Job No: J1222		

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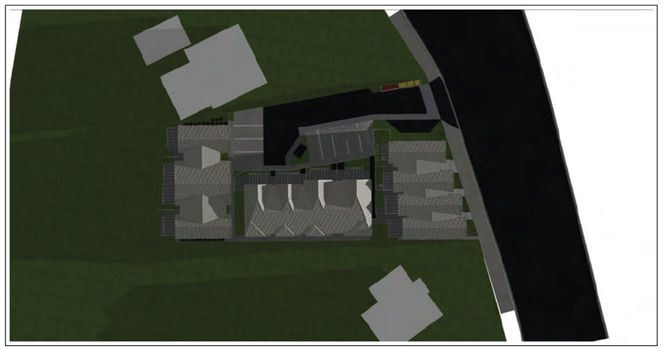
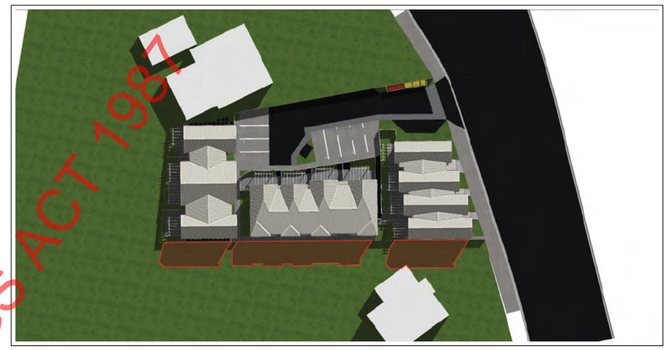


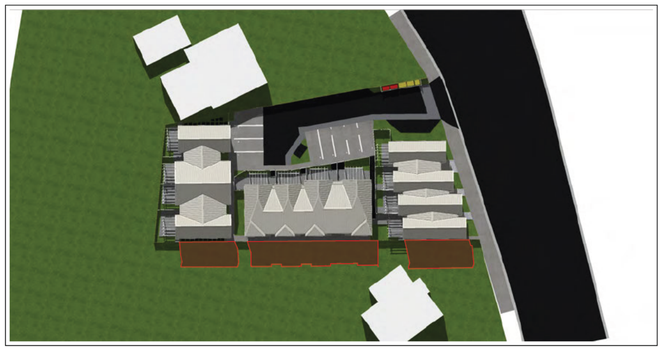
1 Equinox 08h00



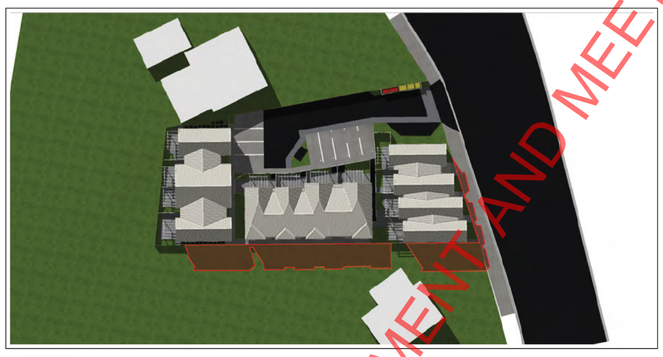
2 Equinox 10h00



3 Equinox 12h00



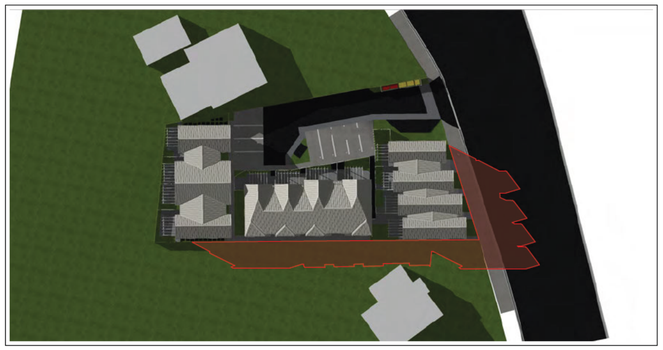
4 Equinox 14h00



5 Equinox 15h00



6 Equinox 16h00



7 Equinox 17h00

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Plans are 9/09/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Resource Consent/J1222 - 85 Ludlam Crescent - RC - 29.05.2025

ARTISTIC IMPRESSION ONLY

Project: **85 Ludlam Crescent** Woburn, Lower Hutt	Client: William Edmonds	Contents: Sun Study | Equinox	RevID	ChID	Change Name	Date	MOORE DESIGN
			A	4	RFI 4 - Additional sun studies added	9/09/2025	

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM	A2 Scale: N/A	SHEET No.	REV No.
Drawn: CP	Date: 9/09/2025	RC16	A
Checked: GC	Job No: J1222		

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Plan set uses colour representation.

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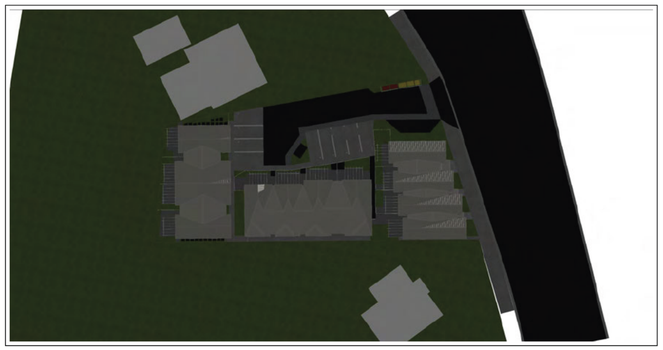
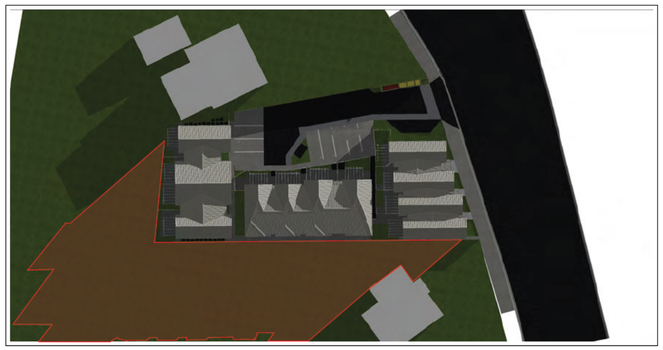
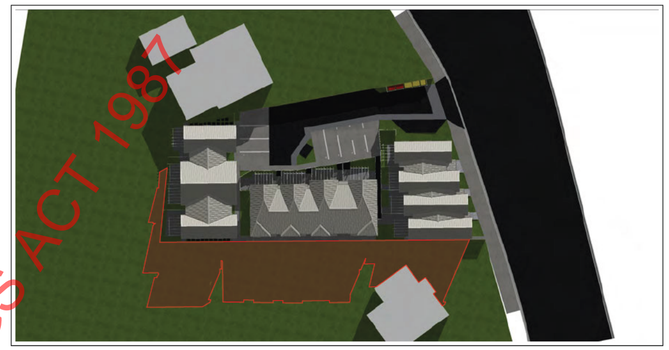


1 Winter 08h00



2 Winter 10h00



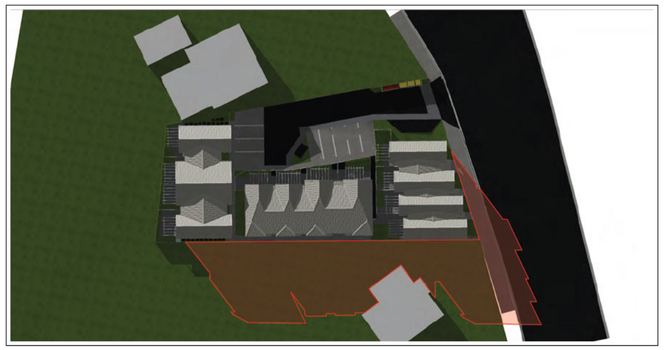
3 Winter 12h00



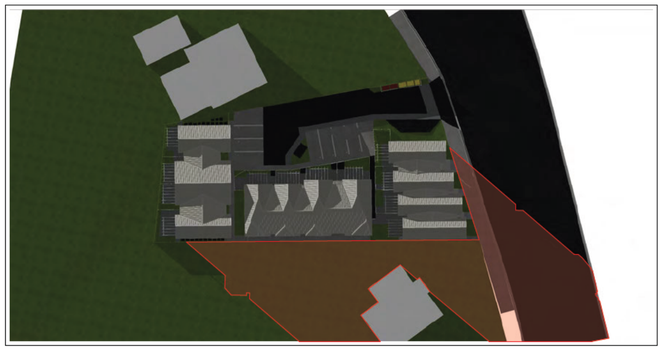
4 Winter 14h00



5 Winter 15h00



6 Winter 16h00



7 Winter 17h00

RELEASED UNDER THE LOCAL GOVERNMENT AND MEETINGS ACT 1987

Plots are 9/09/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Resource Consent/J1222 - 85 Ludlam Crescent - RC - 29.05.2025

ARTISTIC IMPRESSION ONLY

Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Sun Study | Winter

RevID	ChID	Change Name	Date
A	4	RFI 4 - Additional sun studies added	9/09/2025

MOORE DESIGN

Contractor to check dimensions on site prior to fabrication & construction.

Design: CM	A2 Scale: N/A	SHEET No.	REV No.
Drawn: CP	Date: 9/09/2025	RC17	A
Checked: GC	Job No: J1222		

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Plan set uses colour representation.

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NOTES:

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LOCAL AUTHORITY	HUTT CITY COUNCIL
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TOTAL AREA	1359m² (RT AREA)
COMPRISED IN RT	WN464/170
REGISTERED OWNERS	NEROLE JOCELYN DAVIES

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DP 6062
#87 LUDLAM CRESCENT

LOT 1
DP 11523
#85 LUDLAM CRESCENT

PART LOT 9
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#160 WOBURN ROAD

LOT 2 DP 48214
#81 LUDLAM CRESCENT

LOT 1
DP 48214
#83 LUDLAM CRESCENT

LUDLAM CRESCENT

VEHICLE CROSSING

SITE BENCHMARK
RM I FB 4553 P29
BRASS PLAQUE UNDER CAST
IRON COVER IN FOOTPATH
RL=3.17m

DOWN PIPE DISCHARGES TO GROUND

SEAL DRIVEWAY

FLUSH NIB KERB

KERB AND CHANNEL

CONCRETE FOOTPATH

SHED

CARPORT

SOAK PIT
-0.54

DWELLING
APPROXIMATE GROUND LEVEL FOOTPRINT 179m²
APPROXIMATE UPPER LEVEL FOOTPRINT 113m²

GARAGE

POWER PILLAR

CHORUS CABINETS AND MANHOLES

LL=3.80
IL=NOT OBTAINED

LL=3.54
IL=NOT OBTAINED

SWOUT

VEHICLE CROSSING

259°27'05"
269°00'10"
161°49'55"
5°06'00"

LEGEND:

× 77.80	SPOT HEIGHT	D	DOWN PIPE	77.80	EDGE OF SEAL
MH	MANHOLE	SWOUT77.80	STORMWATER OUTLET		BUILDING
W	TOBY	⊗	VENT	EA77.80	EAVE
	SUMP	G	GULLY TRAP	DK77.80	DECK
		P	POWER PILLAR	SL77.80	SOFFIT
		T	CHORUS PILLAR		
			GATE		
			TREE		
		77.80	FENCE		

SS	SEWER MAIN / LATERAL (SCALED HCC GIS)	-77.80	STORMWATER MAIN / LATERAL (CCTV)
-77.80	SEWER MAIN / LATERAL (CCTV)	W	WATER MAIN / LATERAL (SCALED HCC GIS)
SW	STORMWATER MAIN / LATERAL (SCALED HCC GIS)		

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THE SURVEYING COMPANY
YOUR LAND DEVELOPMENT CONSULTANTS
0800 TO SURVEY (0800 86 78 78) e-mail: projects@subdivision.net.nz
Cnr. King & Main Streets, PO Box 40083, Upper Hutt
ph: 04 527 9028

TOPOGRAPHICAL SURVEY OF
85 LUDLAM CRESCENT, LOWER HUTT
PREPARED FOR WILL EDMONDS

SCALE:	1:200 @ A3
CHECKED:	
FIELDWORK:	BLS 12 FEB 2025
DRAWN:	BLS 13 FEB 2025
JOB/DRAWING NUMBER	35176
	Sheet 1 of 1

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 EDMONDS TOPO.dwg Tuesday, 18 February 2025 8:01:40 am

85 Ludlam Crescent

William Edmonds

Project No:J1222

Permitted Baseline

Date issued:
9/09/2025



RELEASED UNDER THE LOCAL GOVERNMENT AND MEETINGS ACT 1987

Permitted Baseline
9 September 2025

Sheet Index

No.	Rev	Name
		Cover sheet
RC01	A	Index | Site Location Plan
RC02		Site Plan
RC03		3D Views
RC04		3D Views - Sunlight Access Planes
RC05	A	Sun Study | Summer
RC06	A	Sun Study | Equinox
RC07	A	Sun Study | Winter
RC08		Additional Survey Information

Project Description:

The permitted baseline for this site would incude the construction of three residential dwellings per site, provided they comply with the permitted activity conditions of the District Plan.

In this instance, the permitted baseline would include the construction of three new dwellings, within the 4m + 60 degree recession plane envelope.

30% permeable surface area must be provided and up to 50% of the site can be covered by buildings. Landscaped area of 20% is to be provided.

Legal Description:

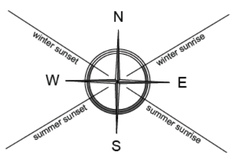
Address:	85 Ludlam Crescent, Woburn, Lower Hutt.
District Plan Zone:	High Density Residential
Lot No.:	1
DP No.:	11523
Legal Description:	ALL DP 11523 WN464/170
Site area:	1359
CT No.:	464/170

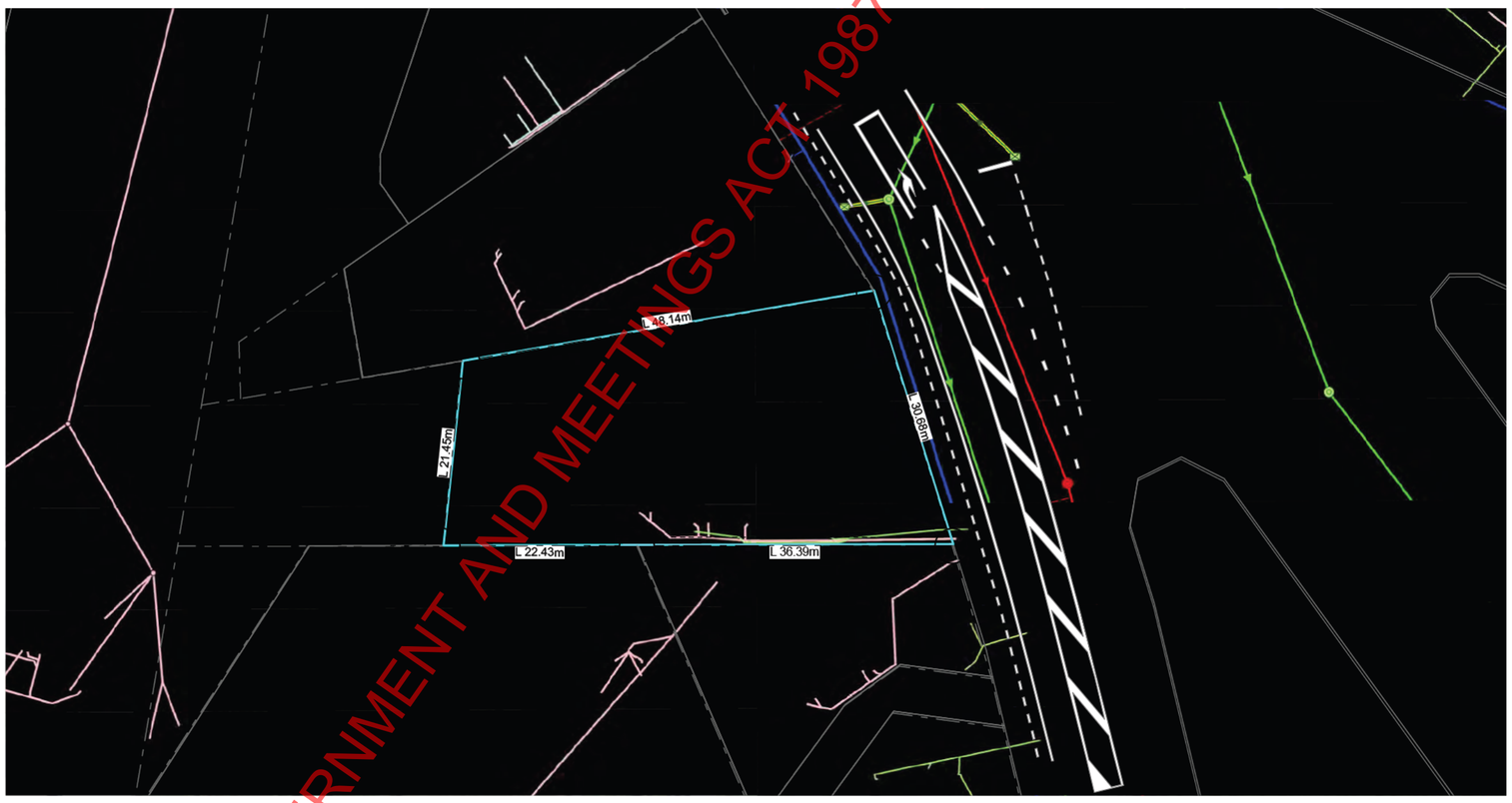
Design Criteria:

Wind zone:	High
Earthquake zone:	Zone 3
Exposure zone:	Zone C
Floor load:	1.5 kPa 2kPa 3kPa
Deck load:	2 kPa
Climate Zone:	3
Altitude:	3.3m
Soil type:	Class D – "Deep Soil"
Risk Group:	SH
Flood Zone:	Flood Hazard

Site Coverage Calculation:

Site gross area:	1359 m²
Block A foot print:	170.36 m²
Block B foot print:	208.12 m²
Block C foot print:	177.03 m²
Total building foot print:	**555.51 m²**
Site coverage:	**40.88 %**
Site coverage allowed:	50%





1 Site Location Plan
1:500

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GRAPHIC SCALE 1:200[m]
0 2 4 6 8 10

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Project: **85 Ludlam Crescent**
Woburn, Lower Hutt

Client: William Edmonds

Contents: Index | Site Location Plan

RevID	ChID	Change Name	Date
A	-	RFI - Sheet index updated	9/09/2025

MOORE DESIGN

Design: CM | A2 Scale:1:500 | SHEET No. RC01 | REV No. A
Drawn: CP | Date: 9/09/2025
Checked: GC | Job No: J1222

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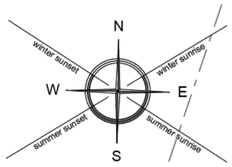

Legend

- Landscaping area
- Outdoor Living area

Coverage Calculations
Site area: 1359m²
Allowed: 50% (679.5m²)
Actual: 35.35% (480.41m²)

Landscaping Calculations
Site area: 1359m²
Required: 20% (271.8m²)
Achieved: 20.64% (280.53²)

Site Coverage	
	Area
Unit 1	170.28
Unit 2	166.73
Unit 3	143.40
	480.41 m²

Areas Schedule

Site area (m²)		**1,359.00**
Coverage	Unit 1	170.28
	Unit 2	166.73
	Unit 3	143.40
		480.41
Floor area	Unit 1	334.00
	Unit 2	327.00
	Unit 3	281.06
		942.06
Coverage		35.4%
FAR		0.69

1 Site Plan
1:200

GRAPHIC SCALE 1:200[m]
0 2 4 6 8 10

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Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Site Plan

RevID	ChID	Change Name	Date

MOORE DESIGN

Design: CM	A2 Scale:1:200, 1:1	SHEET No.	REV No.
Drawn: CP	Date: 9/09/2025	**RC02**	
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1 South East Perspective



3 South West Perspective



2 North East Perspective



4 North West Perspective

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Project:	Client:	Contents:	RevID	ChID	Change Name	Date				
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	3D Views					MOORE DESIGN	Design: CM Drawn: CP Checked: GC	A2 Scale: N/A Date: 9/09/2025 Job No: J1222	SHEET No. RC03 REV No.

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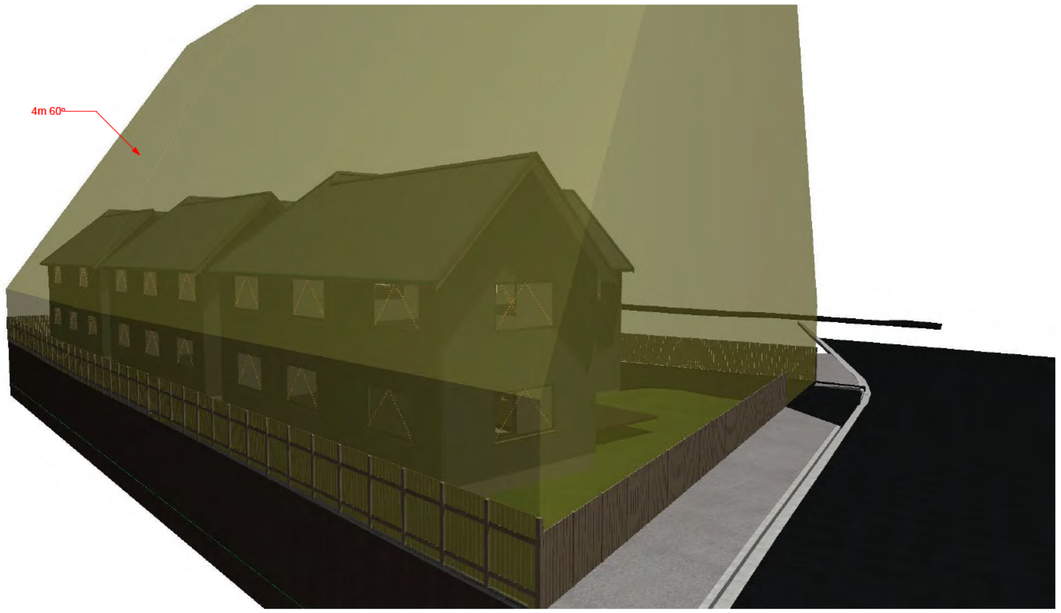

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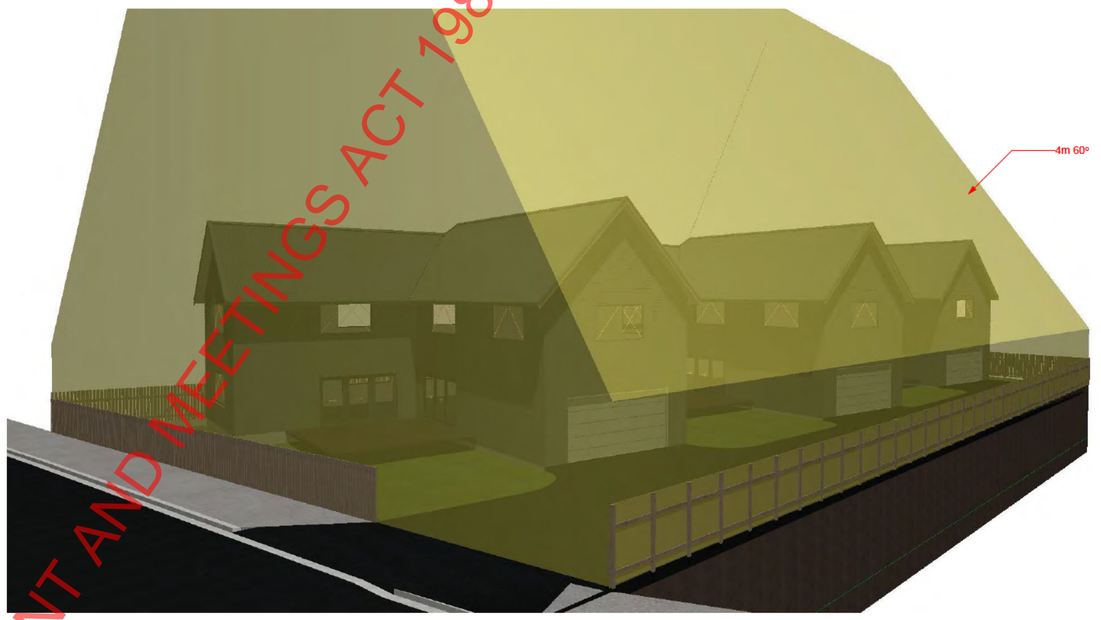

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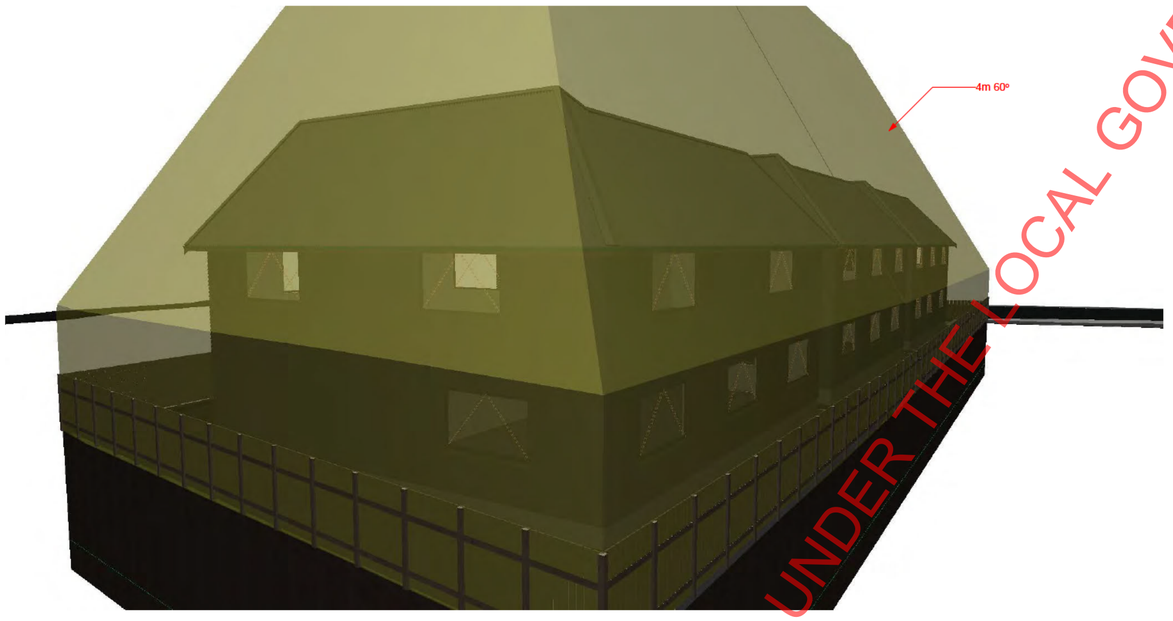
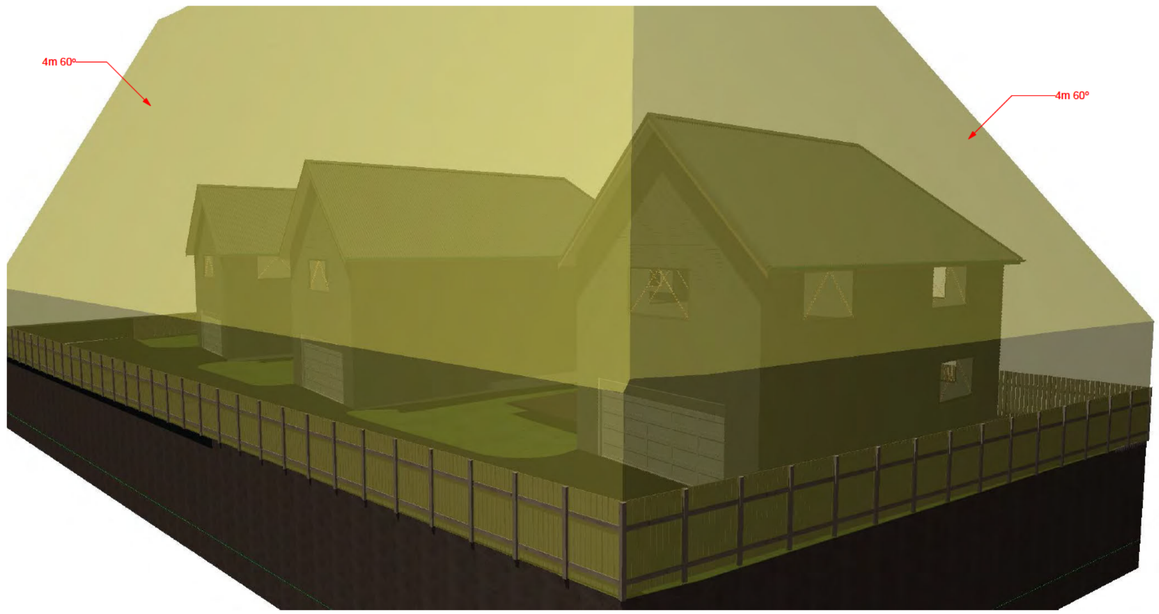


3 South West Perspective



4 North West Perspective

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Project: **85 Ludlam Crescent** Woburn, Lower Hutt	Client: William Edmonds	Contents: 3D Views - Sunlight Access Planes	RevID / ChID / Change Name / Date	MOORE DESIGN	Design: CM · Drawn: CP · Checked: GC · A2 Scale: N/A · Date: 9/09/2025 · Job No: J1222	SHEET No. RC04 · REV No.

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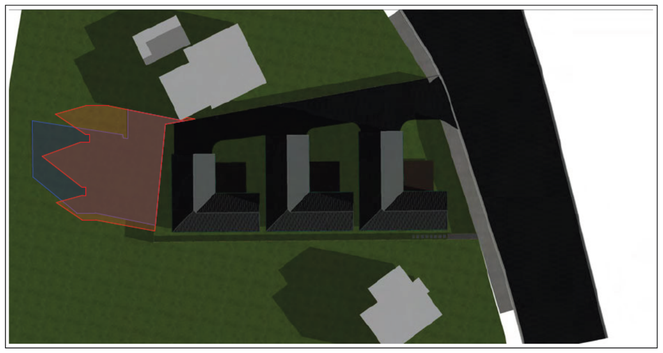

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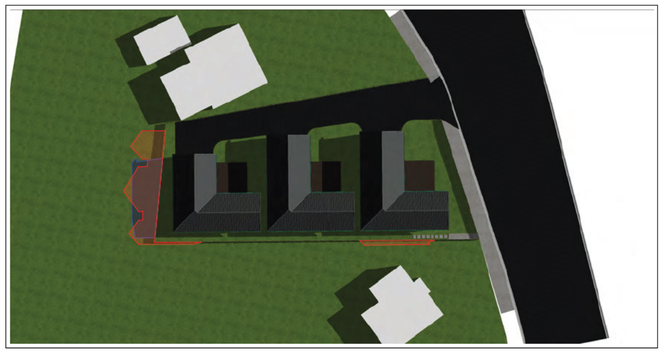

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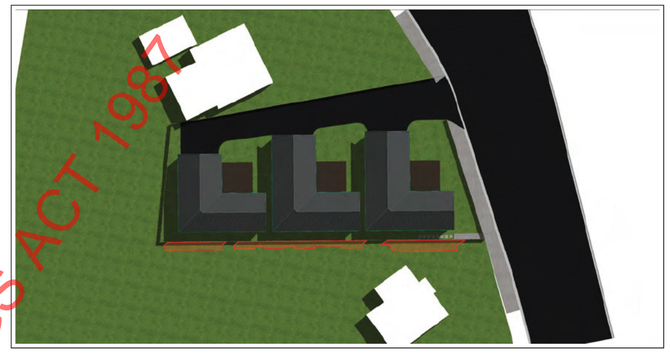

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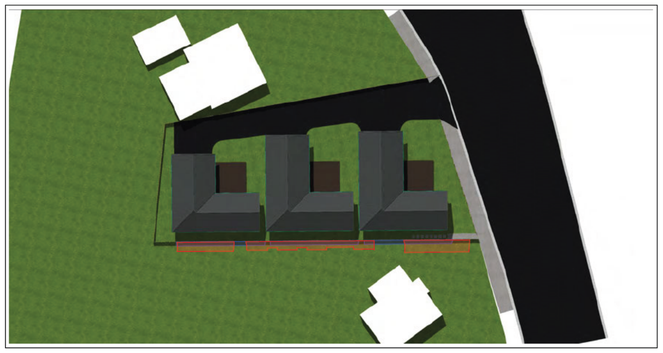

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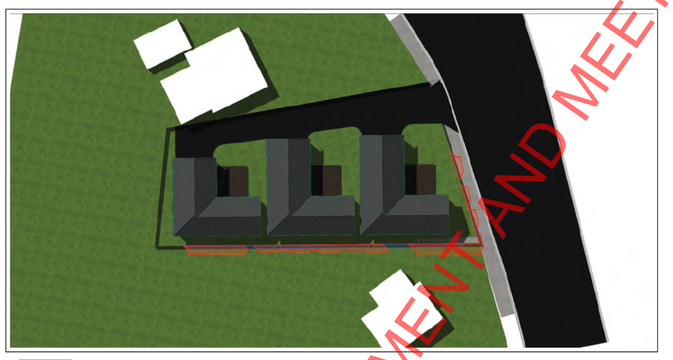

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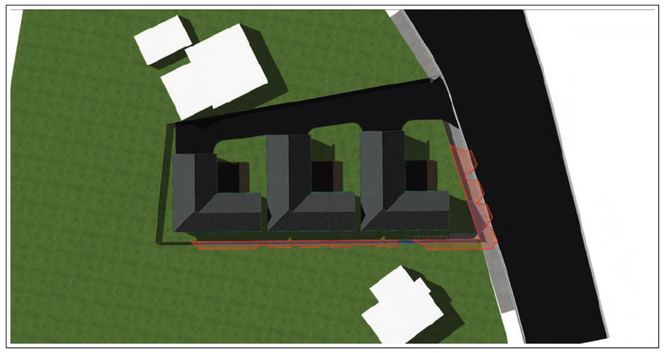

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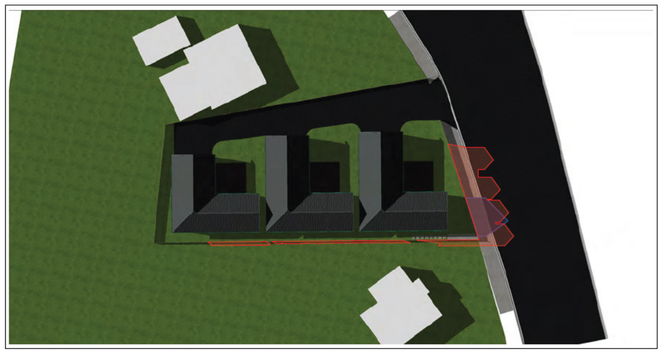

7 Summer 17h00

Proposed development shading

Permitted baseline shading

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Project: **85 Ludlam Crescent** Woburn, Lower Hutt	Client: William Edmonds	Contents: Sun Study | Summer	Plan set uses colour representation.

RevID	ChID	Change Name	Date
A	4	RFI 4 - Additional Sun Studies Added	9/09/2025

MOORE DESIGN

Design: CM	A2 Scale: N/A	SHEET No.	REV No.
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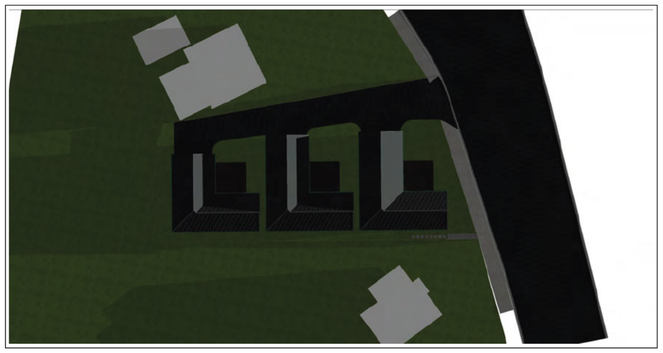

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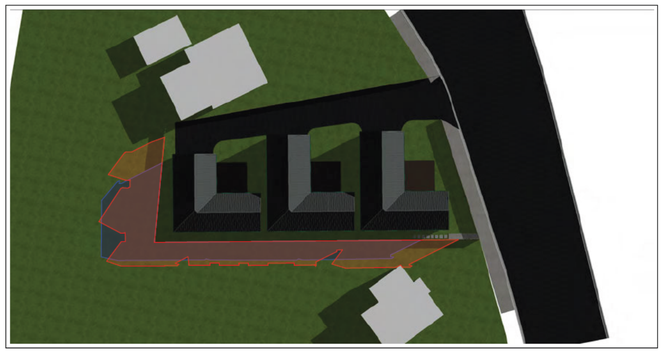

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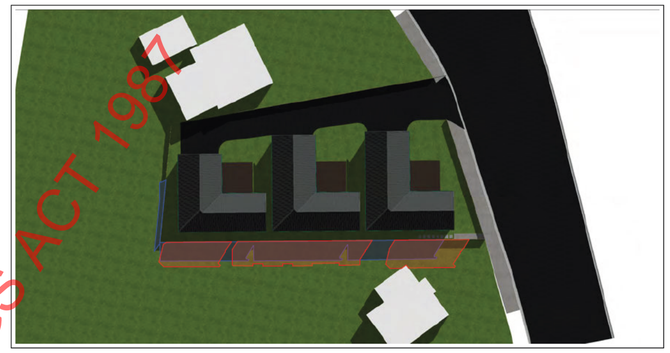

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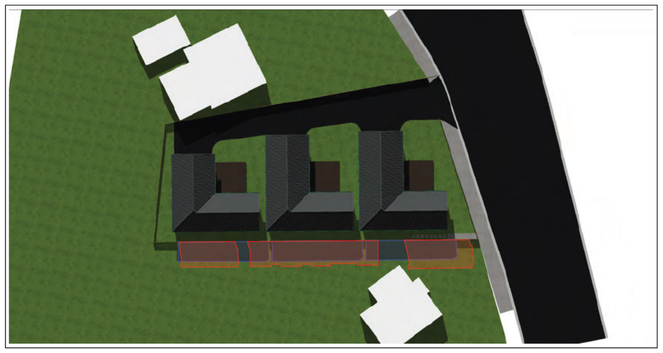

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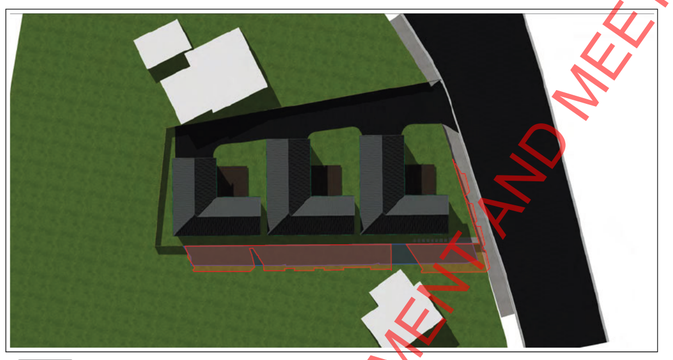

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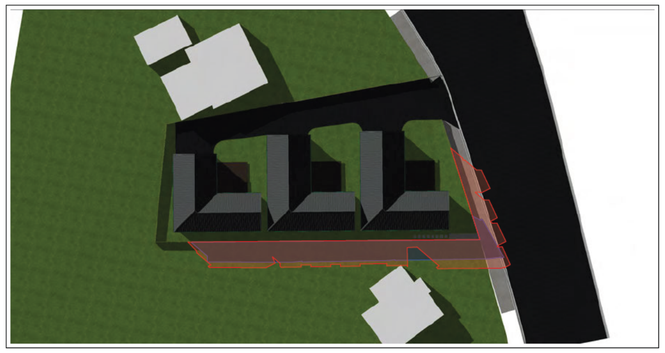

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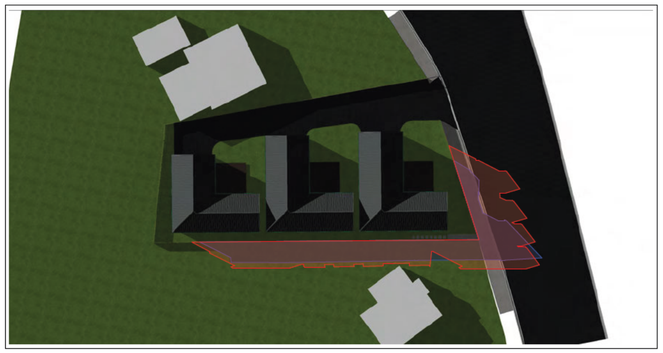

7 Equinox 17h00

Proposed development shading

Permitted baseline shading

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Project: **85 Ludlam Crescent** Woburn, Lower Hutt	Client: William Edmonds	Contents: Sun Study | Equinox	RevID / ChID / Change Name / Date			
			A / 4 / RFI 4 - Additional Sun Studies Added / 9/09/2025			

MOORE DESIGN

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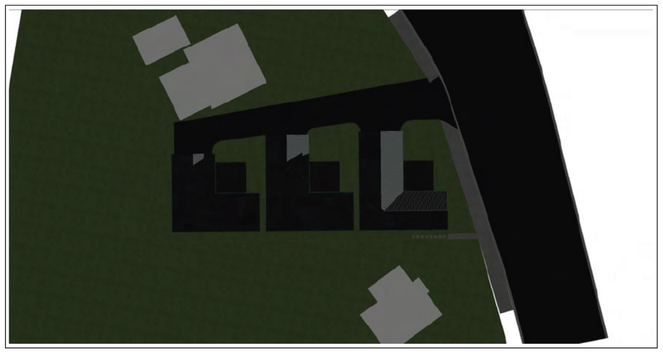

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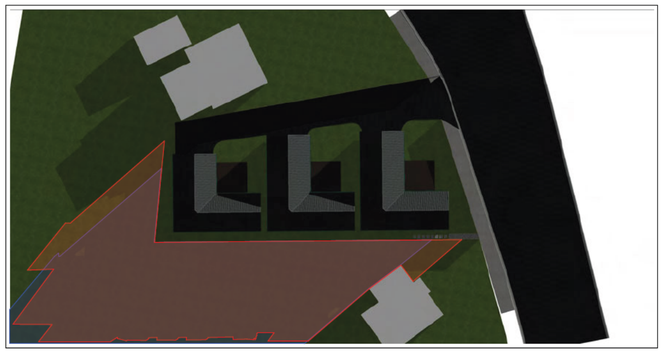

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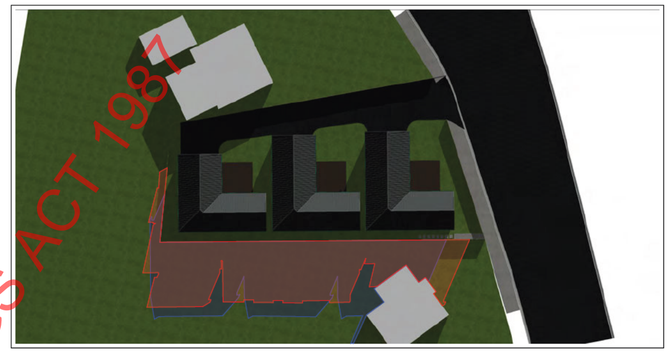

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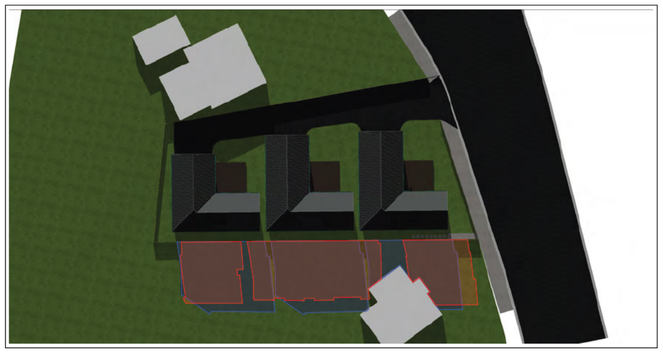

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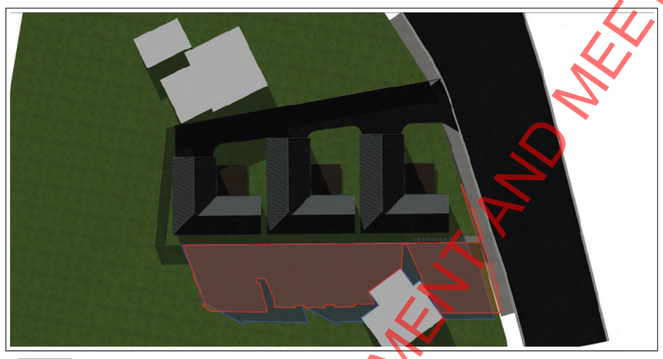

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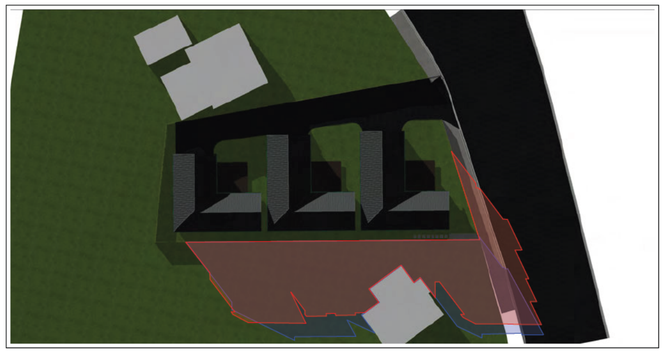

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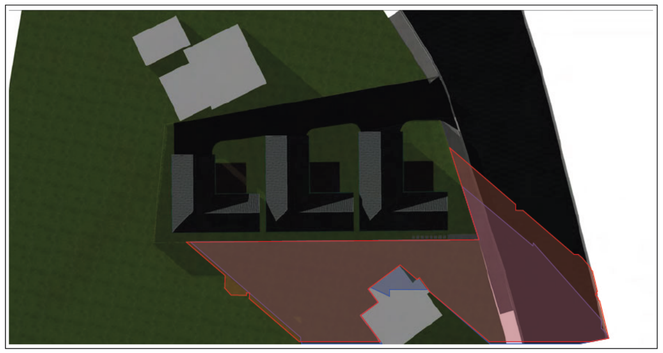

7 Winter 17h00

Proposed development shading

Permitted baseline shading

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Project: **85 Ludlam Crescent** Woburn, Lower Hutt	Client: William Edmonds	Contents: Sun Study | Winter	Design: CM	A2 Scale: N/A	SHEET No. **RC07** REV No. **A**
			Drawn: CP	Date: 9/09/2025	
			Checked: GC	Job No: J1222	

RevID	ChID	Change Name	Date
A	4	RFI 4 - Additional Sun Studies Added	9/09/2025

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NOTES:

1. HEIGHTS ARE IN TERMS OF NEW ZEALAND WELLINGTON VERTICAL DATUM 1953.
   ORIGIN OF HEIGHTS IS: PENROSE STREET (BDNG), RL=3.96m, SOURCED: CONVERTED FROM LINZ GEODETIC DATABASE NEW ZEALAND VERTICAL DATUM 2016 HEIGHT OF RL=3.576m, SOURCED DATE: 11 FEB 2025.
   SITE BENCHMARK IS: RM I FB 4553 P29, BRASS PLAQUE UNDER CAST IRON COVER IN FOOTPATH, RL=3.17m
2. "SPOT HEIGHT" POSITIONS ARE SHOWN IN THE FOLLOWING FORMAT x36.24 AND ARE EXPRESSED IN METRES IN TERMS OF THE SITE DATUM FOR THE SURVEY.
   THE HEIGHTS OF THESE POSITIONS HAVE AN ACCURACY RELATIVE TO THE SITE DATUM AS FOLLOWS:
   - HARD SURFACES EG CONCRETE, ASPHALT +/- 0.030m @ 95% CONFIDENCE LEVEL.
   - SOFT SURFACES EG GRASS +/- 0.050m @ 95% CONFIDENCE LEVEL
3. NOT ALL SPOT HEIGHTS HAVE BEEN SHOWN ON THIS PLAN FOR CLARITY.
4. CONTOURS SHOWN ON THIS SURVEY ARE INTERPOLATED FROM SURVEYED "SPOT HEIGHT" POSITIONS. THEREFORE THE LOCATION AND VALUES OF THE CONTOUR MODEL IS DEPENDENT ON THE DENSITY OF THE SURVEYED SPOT HEIGHTS. THIS SURVEY DEPICTS A CONTOUR INTERVAL OF 0.50m WITH AN ACCURACY RELATIVE TO THE HEIGHT DATUM OF +/- 0.25m AT A 95% CONFIDENCE LEVEL.
5. UNLESS SHOWN OTHERWISE, UNDERGROUND SERVICE INFORMATION SHOWN ON THIS PLAN IS DIGITIZED FROM HUTT CITY COUNCIL GIS INFORMATION AND HAS NOT BEEN VERIFIED BY THE SURVEYING COMPANY (WELLINGTON) LTD. THE LOCATION OF UNDERGROUND SERVICES SHOULD BE LOCATED BY THE CONTRACTOR PRIOR TO ANY WORK BEING CARRIED OUT.
6. WHERE INFORMATION SHOWN ON THIS PLAN IS USED FOR SUNLIGHT ACCESS/HEIGHT PLANES WHICH ARE CRITICAL, GROUND LEVELS SHOULD BE CONFIRMED BY ADDITIONAL SURVEY OF THE CRITICAL POINTS ON THE GROUND.
7. ALL SURVEYED TREES SHOWN ON THIS PLAN ARE NIKAU PALMS, SOME NIKAU PALMS MAY NOT HAVE BEEN SURVEYED.

LOCAL AUTHORITY	HUTT CITY COUNCIL
CURRENT ZONING	HIGH DENSITY RESIDENTIAL (WITH FLOOR HAZARD OVERLAY)
TOTAL AREA	1359m² (RT AREA)
COMPRISED IN RT	WN464/170
REGISTERED OWNERS	NEROLE JOCELYN DAVIES

PART LOT 2
DP 6062
#87 LUDLAM CRESCENT

LOT 1
DP 11523
#85 LUDLAM CRESCENT

PART LOT 9
DP 5877
#160 WOBURN ROAD

LOT 2 DP 48214
#81 LUDLAM CRESCENT

LOT 1
DP 48214
#83 LUDLAM CRESCENT

LUDLAM CRESCENT

VEHICLE CROSSING

SITE BENCHMARK
RM I FB 4553 P29
BRASS PLAQUE UNDER CAST
IRON COVER IN FOOTPATH
RL=3.17m

DOWN PIPE DISCHARGES TO GROUND

SEAL DRIVEWAY

FLUSH NIB KERB

KERB AND CHANNEL

CONCRETE FOOTPATH

SHED

CARPORT

SOAK PIT
-0.54

DWELLING
APPROXIMATE GROUND LEVEL FOOTPRINT 179m²
APPROXIMATE UPPER LEVEL FOOTPRINT 113m²

GARAGE

POWER PILLAR

CHORUS CABINETS AND MANHOLES

LL=3.80
IL=NOT OBTAINED

LL=3.54
IL=NOT OBTAINED

SWOUT

VEHICLE CROSSING

259°27'05"
269°00'10"
161°49'55"
5°06'00"

LEGEND:

× 77.80	SPOT HEIGHT	D	DOWN PIPE	77.80	EDGE OF SEAL
MH	MANHOLE	SWOUT77.80	STORMWATER OUTLET		BUILDING
W	TOBY	⊗	VENT	EA77.80	EAVE
	SUMP	G	GULLY TRAP	DK77.80	DECK
		P	POWER PILLAR	SL77.80	SOFFIT
		T	CHORUS PILLAR		
			GATE		
			TREE		
		77.80	FENCE		

SS	SEWER MAIN / LATERAL (SCALED HCC GIS)	-77.80	STORMWATER MAIN / LATERAL (CCTV)
-77.80	SEWER MAIN / LATERAL (CCTV)	W	WATER MAIN / LATERAL (SCALED HCC GIS)
SW	STORMWATER MAIN / LATERAL (SCALED HCC GIS)		

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THE SURVEYING COMPANY
YOUR LAND DEVELOPMENT CONSULTANTS
0800 TO SURVEY (0800 86 78 78) e-mail: projects@subdivision.net.nz
Cnr. King & Main Streets, PO Box 40083, Upper Hutt
ph: 04 527 9028

TOPOGRAPHICAL SURVEY OF
85 LUDLAM CRESCENT, LOWER HUTT
PREPARED FOR WILL EDMONDS

SCALE:	1:200 @ A3
CHECKED:	
FIELDWORK:	BLS 12 FEB 2025
DRAWN:	BLS 13 FEB 2025
JOB/DRAWING NUMBER	35176
	Sheet 1 of 1

S:\Live Projects\35176 Edmonds\Drawings\Current\35176 EDMONDS TOPO.dwg Tuesday, 18 February 2025 8:01:40 am

From: William Edmonds
To: Alice Blackwell
Subject: Re: Further Information Request - 85 Ludlam Crescent - RM250155
Date: Sunday, 31 August 2025 8:26:16 am
Attachments: image001.jpg
image002.png
image003.png
image.png
1000-054-026_85 Ludlam Crescent_Geotechnical Report_Compiled (1).pdf

---

Hi Alice

Hopefully these two emails (from Maika and Amanda) along with the geotech report (attached) will be enough to cover off that aspect of the RFI.

Many thanks
Will

On Sat, Aug 30, 2025 at 5:22 AM Maika Fraser <Maika@cohesivegeo.co.nz> wrote:

> Hi Will,
>
> All good here. Hope that you are doing well too.
>
> If there is no additional water discharging into the ground, then it will not influence the sites current liquefaction susceptibility.
>
> Thanks,
>
> Maika Fraser
> Engineering Geologist
> BSc, MEngNZ
> E: maika@cohesivegeo.co.nz
> P: s7(2)(a)
>
> EMAIL WARNING AND DISCLAIMER: This email (including any attachments) may contain information that is confidential and subject to legal privilege. If you have received this email in error, please delete it immediately, and inform us of the mistake by return email. Any form of reproduction or further dissemination of this email is strictly prohibited. We take reasonable precautions to ensure our emails are virus-free. We cannot accept responsibility for any virus transmitted by us and suggest that you subject any incoming email to your own virus-checking procedures.
>
> ---
>
> **From:** William Edmonds <s7(2)(a)>
> **Sent:** Friday, August 29, 2025 12:55 AM
> **To:** Maika Fraser <Maika@cohesivegeo.co.nz>; Nathan Blaker <Nathan@cohesivegeo.co.nz>
> **Cc:** Alice Blackwell <alice@urbanedgeplanning.co.nz>
> **Subject:** Fwd: Further Information Request - 85 Ludlam Crescent - RM250155
>
> Hi Nathan and Maika
>
> I hope you are both well.
>
> You may recall the geotech report you did for me for 85 Ludlam Cres a few months back. RC has been submitted and council have come back with an RFI regarding engineering (see council's question inset below). In short, we have a Cirtex rainsmart stormwater module for a detention system in the driveway. Per engineers email below, this will not be discharging to the ground and will be fully lined to safeguard against liquefaction. Could you please advise of any comments from a geotech perspective so I can go back to council on the RFI?
>
> I will also pass the geotech report on to council - just wanted a comment on this specific detention system to complement it.
>
> Many thanks
> Will

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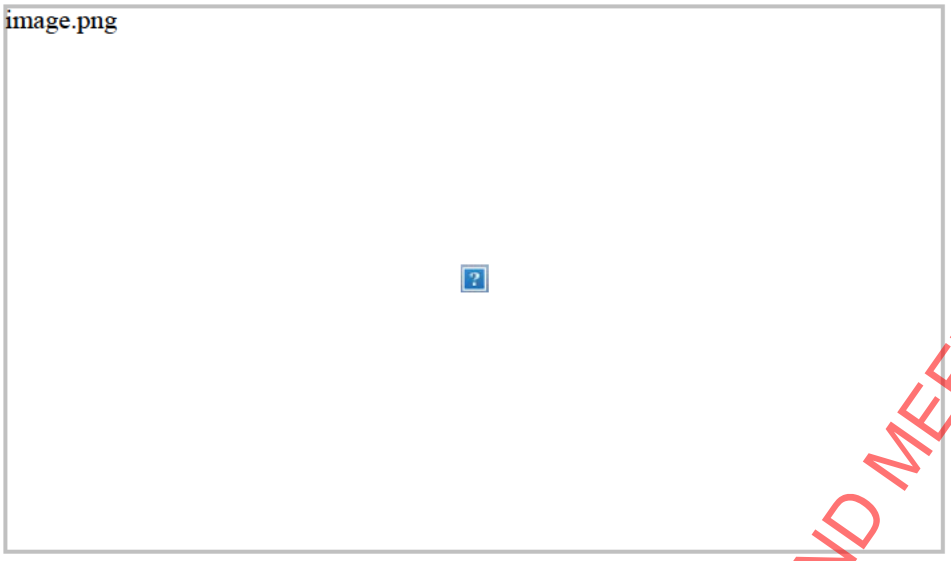
image.png



---------- Forwarded message ---------
From: **Amanda Brown** <amanda.brown@e2environmental.com>
Date: Thu, Aug 28, 2025 at 1:06 PM
Subject: RE: Further Information Request - 85 Ludlam Crescent - RM250155
To: Alice Blackwell <alice@urbanedgeplanning.co.nz>, William Edmonds <s7(2)(a) [redacted] >, Clayton Perfect | Moore Design <clayton@mooredesign.nz>, Eve McLachlan <eve@urbanedgeplanning.co.nz>, Joseph Mitchell <josephm@subdivision.net.nz>, Luke Benner <luke@bennerconsulting.co.nz>
Cc: Kate Clancy <katec@subdivision.net.nz>, Zeean Brydon <zeean.brydon@e2environmental.com>, Cam Moore | Moore Design <cam@mooredesign.nz>

Hi Alice,

We have had a quick look through the RFI.

In relation to point 13 and the underground storage/detention system we note the following:

- The system will not be discharging stormwater to ground. The detention tank will be fully lined and from our experience we believe the installation could be rafted and have extra gravel laid to protect against liquefaction.
- We would suggest you get the Geotech engineer to confirm the risk and mitigation required for the underground detention tank.

Regards,

Amanda Brown Intermediate Engineer/Hydraulic Modeller

Please note that I work reduced hours Monday to Friday

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Ph s7(2)(a)

e2Environmental Ltd

2 Queens Drive, Ashburton 7700

PO Box 31159, Ilam, Christchurch 8444

www.e2Environmental.com

From: Alice Blackwell <alice@urbanedgeplanning.co.nz>
Sent: Wednesday, 27 August 2025 9:32 am
To: William Edmonds <s7(2)(a)>; Amanda Brown <amanda.brown@e2environmental.com>; Clayton Perfect | Moore Design <clayton@mooredesign.nz>; Eve McLachlan <eve@urbanedgeplanning.co.nz>; Joseph Mitchell <josephm@subdivision.net.nz>; Luke Benner <luke@bennerconsulting.co.nz>
Cc: Kate Clancy <katec@subdivision.net.nz>; Zeean Brydon <zeean.brydon@e2environmental.com>; Cam Moore | Moore Design <cam@mooredesign.nz>
Subject: FW: Further Information Request - 85 Ludlam Crescent - RM250155

Good morning,

Please find attached an RFI for 85 Ludlam, I will send a follow-up email with actions but might not get to this until tomorrow. The rubbish truck issue might be one of the trickiest issues to resolve, but from the comments, the Council feel quite strongly about this issue.

Alice Blackwell

Senior Planner

alice@uep.co.nz

s7(2)(a)

Please note my work days are Monday – Thursday

From: Stephen Dennis <Stephen.Dennis@huttcity.govt.nz>
Sent: Tuesday, August 26, 2025 3:36 PM
To: Alice Blackwell <alice@urbanedgeplanning.co.nz>
Subject: Further Information Request - 85 Ludlam Crescent - RM250155

Hi Alice,

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As signalled previously I have had feedback from relevant experts including our DE team on this application, I intended on getting this out sooner but was awaiting some clarification around some elements. Attached is an information request made under s92(1), I think there will be some aspects to this that will raise some questions particularly around the refuse collection and/or other elements so happy to field any questions or set up a meeting to discuss any aspects if needed.

Kind regards,

Stephen

Stephen Dennis
Principal Resource Consents Planner

Hutt City Council, 30 Laings Road, Hutt Central, Lower Hutt 5010
P: s7(2)(a) **M:** **W:** www.huttcity.govt.nz

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COHESIVE

GEOTECHNICAL REPORT

85 Ludlam Crescent, Woburn, Lower Hutt

Job number: 1000-054-026

Date: 13/03/2025

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Table of Contents

85 Ludlam Crescent, Woburn, Lower Hutt 0

1. Executive Summary 3
2. Introduction 4
   - 2.1. Relevant Documentation 4
3. Proposed Development 5
4. Desktop Study 6
   - 4.1. Site Description 6
   - 4.2. Published Geology 6
   - 4.3. New Zealand geotechnical Database 7
   - 4.4. Combined Earthquake Hazard Map 8
5. Geotechnical Investigations and Assessment 8
   - 5.1. Site Walkover Observations 8
   - 5.2. Hand Auger Investigations and Ground Profile 8
   - 5.3. Bearing Capacity Testing and Summary 9
   - 5.4. CPT Testing 9
   - 5.5. Water Table 9
   - 5.6. Site Subsoil Classification 10
   - 5.7. Natural Hazard Assessment 10
6. Liquefaction Analysis 10
   - 6.1. Ultimate Limit State and Serviceability Limit State 11
   - 6.2. Liquefaction Severity Number 11
   - 6.3. Liquefaction Summary 11
7. Engineering Recommendations 12
   - 7.1.1. Piled Enhanced Foundation Slab (Piled Waffle Slab) 12
   - 7.2. Timber Subfloor Construction 12
   - 7.3. Earthworks 13
   - 7.4. Construction Monitoring 13
   - 7.5. Further Investigation 13
   - 7.6. Drawing Review 13
8. Safety in Design 13
9. Conclusions 14

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10. Limitations 16
Appendix 1: Site Investigation Plan 17
Appendix 2: Site Investigation Results 18
Appendix 3: Liquefaction Analysis 19
Appendix 4: Conceptual Plans 20

List of Tables

Table 1: Summary of active faults near the site. 7
Table 2: Subsoil profile based on shallow soil investigations 9
Table 3: LSN Damage Classifications 11
Table 4: Summary of liquefaction analysis results 12

List of Figures

Figure 1: Image displaying proposed development layout provided by Moore Design 5
Figure 2: Image displaying site location and extent, Hutt City Council Maps, 2021. 6
Figure 3: Geology of the site from GNS 1:250000 Geological Map of New Zealand. 7

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1. Executive Summary

Desktop summary:

Address and Legal Description	85 Ludlam Crescent, Woburn, Lower Hutt (ALL DP 11523 WN464/170)
Site area (m²)	1359m²
Proposed Development	Multi-unit development
Consent Application	Resource Consent and Building Consent application
Anticipated Underlying Geology	Holocene River Deposits
Liquefaction Risk	Moderate risk (TC2 Site)

Groundwater Level:

Hand auger (mbgl)	1.3-1.7

Bearing Capacity Summary:

Depth to 200kPa Uncorrected Ultimate Bearing Capacity:	1.7mbgl
Depth to 300kPa Uncorrected Ultimate Bearing Capacity:	2.0mbgl

Site Foundation Options:

Piled Enhanced foundation slab **Piled TC2 compliant slab (i.e. Xpod)**	Where a concrete slab is preferred, it is recommended that concrete encased timber piles, driven timber piles or concrete piles are incorporated into the SED TC2 compliant waffle slab (i.e. Xpod) and embedded at a minimum depth of 2.0mbgl where an ultimate bearing capacity in excess of 300kPa is achieved. Exact pile embedment depths and specification shall be determined by the designing engineer. Foundation design to be carried out by a suitably qualified engineer. All TOPSOIL is to be stripped and replaced with compacted engineered FILL to create a smooth working platform for foundation construction.
Timber Subfloor – piled foundation system	Where a timber subfloor is preferred, piles are to be embedded below a depth of 2.0mbgl where an ultimate bearing capacity in excess of 300kPa was consistently achieved across the site. Exact embedment depths are to be determined by the designing engineer. This foundation system can be implemented for Type A and Type B dwellings though it should be noted that piles will need to incorporated under perimeter walls for a Type B dwelling to transfer the load of the perimeter wall down to competent bearing ground. A minimum 450mm crawl space is required for future maintenance, repairs, and relevelling where necessary.

Prepared and final review by:

Nathan Blaker
Chartered Engineering Geologist/Director
BSc, PMEG, CMEngNZ (pEngGeol)

ENGINEERING NEW ZEALAND OFFICIAL MEMBER

Initial review by:

Engineering Geologist/Director
BSc

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2. Introduction

Cohesive Consulting have been engaged by James and Will Edmonds to provide a geotechnical report for a proposed multi-unit development at 85 Ludlam Crescent, Woburn, Lower Hutt (Legal Description: ALL DP 11523 WN464/170).

This geotechnical report has been prepared to determine the suitability of the site for the proposed development and address geological hazards and is suitable for a resource consent application with the Hutt City Council. This geotechnical report has also been prepared assist with the proposed earthworks and structural design and is suitable for a building consent application with the Hutt City Council.

This report considers the following aspects of site development:

- Existing stability of the site.
- Natural hazard assessment in accordance with the RMA.
- Liquefaction potential and risk.
- Effects of the development on stability.
- Suitable building platforms and foundations.

A geotechnical site testing plan is attached as Appendix 1 showing the property boundaries, and associated site investigations.

2.1. Relevant Documentation

- Geotechnical investigation results by Cohesive Consulting dated 17 February 2025 (refer to Appendix 1 and 2)
- CPT investigation results by CPT Elite dated 17 February 2025 (Refer to Appendix 3 for liquefaction analysis)
- Conceptual scheme plan by Moore Design dated 25 February 2025 (refer to Appendix 4)
- NZS 3604: 2011 - Timber-framed buildings
- NZS 4402:1986 - Methods of testing soils for civil engineering purposes
- NZS4431:2022 – Engineered fill construction for lightweight structures
- NZGS Module 1 and 6 (2021)
- Canterbury Technical Guidance
- Greater Wellington Regional Council: GIS Maps
- Hutt City Council: GIS Maps
- Resource Management Act 1991

The requirement for specific engineering design is dependent on whether the site subsoils fall within the NZS3604:2011 definition of 'good ground'. 'Good ground' – means any soil or rock capable of permanently withstanding an ultimate bearing pressure of 300 kPa (i.e., a dependable bearing capacity of 150 kPa using a reduction factor of 0.5) but excludes:

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a) Potentially compressible ground such as topsoil, soft soils such as clay which can be moulded easily in the fingers, and uncompacted loose gravel which contains obvious voids.

b) Expansive soils being those that have a liquid limit of more than 50% when tested in accordance with NZS4402 Test 2.2 and a linear shrinkage of more than 15% when tested from the liquid limit in accordance with NZS 4402 Test 2.6.

c) Any ground which could foreseeably experience movement of 25 mm or greater for any reason including one or a combination of the following: land instability, ground creep, subsidence, seasonal swelling and shrinking, frost heave, changing groundwater level, erosion, dissolution of soil in water, and effects of tree roots.

3. Proposed Development

Cohesive Consulting have been provided with a conceptual scheme plan which show it is proposed to remove the existing dwelling and garage on site to make room for a 12 unit residential development.

Units 1-4 are to be adjoined units in the southeastern corner of the site. Units 5-8 are to be adjoined units in the centre on the southern section of the site of the site and units 9-12 are to be adjoined residential units to the rear of the site (west). A driveway and car parking area is proposed on the northern portion of the site. The units are to range in building footprint from 32.0-48.6m^2 and the preferred foundation option is to be a waffle slab. Refer to Appendix 4 for the supplied conceptual plans.



Figure 1: Image displaying proposed development layout provided by Moore Design

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4. Desktop Study

4.1. Site Description

The site is located at 85 Ludlam Crescent, Woburn, Lower Hutt (Legal Description: ALL DP 11523 WN464/170). The site currently consists of an existing dwelling and garage on the southern section of the site. The remainder of the site consists of a flat grassed garden area with a driveway and car parking space to the north of the dwelling. The site for the proposed development has a total area of 1,359m^2 and is shown in Figure 2 which has been sourced from Hutt City Council Maps.



Figure 2: Image displaying site location and extent, Hutt City Council Maps, 2021.

4.2. Published Geology

The GNS Science online geology map (Figure 3) shows the underlying geology of the site is Holocene River Deposits consisting of well sorted floodplain gravels. However, these are regionally scaled documents and should not be relied on for site-specific acceptance.

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Figure 3: Geology of the site from GNS 1:250000 Geological Map of New Zealand.

Holocene River Deposits

The Wellington Fault lies approximately 1.3km northwest of the site. The Wellington Fault is described as a Class 1 active fault and is also known as the collision zone between the Australian and Pacific plate. GNS describes this an oblique dextral strike slip fault indicating possible movement in all directions. Refer to Table 1 below for more information.

Table 1: Summary of active faults near the site.

Fault	Slip Rate (mm/year)	Magnitude estimate M_w	Recurrence Interval (years)	Elapsed Time Since Last Event (years)	Max Event Probability
Wellington Fault	6.0-7.6	7.6 ± 0.3	600	300-450	8 – 15 % in 50 years

4.3. New Zealand geotechnical Database

The New Zealand Geotechnical Database was consulted to view any possible nearby testing that had previously been completed in the area. A CPT is observed approximately 190m southwest of the site. The CPT achieves a target depth of 10.0mbgl and displays a ground profile consisting of alternating layers of sands, silts and clays inferred as alluvial deposits.

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4.4. Combined Earthquake Hazard Map

The combined earthquake hazard map by the Greater Wellington Regional Council was consulted for potential seismic hazard. The map indicates that the site has a '*low*' risk of earthquake-induced slope failure, a *'low to moderate'* potential for ground shaking and a '*moderate'* combined earthquake hazard zones and the site has not been mapped for liquefaction potential (Greater Wellington Regional Council, 2017). A separate Greater Wellington Regional Council map was consulted to assess the liquefaction potential of the site (GRWC QMaps by GNS, 2019), which indicates the site is situated in a liquefaction risk zone.

However, this is a regionally scaled document and should not be relied upon for site-specific acceptance.

5. Geotechnical Investigations and Assessment

A site visit and geotechnical testing was carried out by Cohesive Consulting and by CPT Elite on 17 February 2025 where the following intrusive investigations were conducted:

- 6 no. hand auger investigations with shear vane test at 0.5m intervals in cohesive soils to determine the nature and shear strength of near subsurface soils labelled as HA01-HA06.
- 10 no. Scala penetrometer (Dynamic Cone Penetrometer) tests to determine the strength and bearing of near surface soils, labelled as DCP01-DCP12.
- 1 no. CPT to a target depth of 10.0mbgl, carried out by CPT Elite to determine the liquefaction potential of the site, labelled as CPT01.

The test locations are shown on the site investigation plan attached as Appendix 1. Full test results can also be found in Appendix 2. Testing has been focused in and around the proposed development footprint.

5.1. Site Walkover Observations

A site visit was undertaken on 17 February 2025 by Cohesive Consulting. The following observations were made during the site walkover with associated site photos provided below:

- There is an existing dwelling at the site which is to be removed to allow for the proposed development.
- The site is flat and is not observed to be within proximity to any nearby waterways.
- Moderately dense vegetation is observed in areas across the site.

5.2. Hand Auger Investigations and Ground Profile

The results from the hand auger investigations carried out at the site are summarised in Table 2. The location of the tests can be found in Appendix 1 and full test results attached in Appendix 2.

The ground profile for 85 Ludlam Crescent, Woburn, Lower Hutt consists of a thin layer of TOPSOIL and uncontrolled FILL to a maximum depth of 0.5mbgl, this is underlain by layers of sandy SILT/SILT to a depth of 1.8mbgl. Layers of organic SILT and silty PEAT were observed from a depth range of 1.1-1.7mbgl in two test locations (HA02 & HA05) followed by layers of SAND/gravelly SAND to a maximum depth of 2.1mbgl where refusal of the hand auger investigation was encountered. CPT results show this is followed by a layer of CLAY to a depth of 3.5mbgl followed by dense to very dense gravelly SAND/sandy GRAVEL to a depth of 6.97mbgl. This

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is then underlain by layers of SAND and silty SAND to a depth of 10.0mbgl where target depth of the CPT investigation was encountered.

For a basic geological interpretation based on the shallow geotechnical investigations refer to Table 4.

Table 2: Subsoil profile based on shallow soil investigations

Depth Ranges (m)	Geological Interpretation
0.0-0.5	TOPSOIL/FILL
0.5-1.8	Sandy SILT/SILT [Alluvial Deposits]
1.1-1.7	Organic SILT/silty PEAT
1.7-2.1	SAND/Gravelly SAND
2.1-3.5	CLAY (CPT)
3.5-6.97	Gravelly SAND/sandy GRAVEL (CPT)
6.97-10.0	SAND & silty SAND (CPT)

5.3. Bearing Capacity Testing and Summary

Scala penetrometer results show that an ultimate bearing capacity (UBC) in excess of 200kPa (100kPa dependable) is available from a depth of 1.7mbgl, below the encountered unsuitable soils (organic SILT and PEAT). A geotechnical ultimate bearing capacity in excess of 300kPa (150kPa dependable) is available from a depth of 2.0mbgl.

Uncorrected bearing capacities derived from Scala penetrometer tests were estimated using the procedure presented by M.J. Stockwell in the paper 'Determination of allowable bearing pressure under small structures (June 1977)'. Bearing capacities should be corrected for the proposed foundation dimensions once these are known.

5.4. CPT Testing

1 no. CPT test was carried out at 85 Ludlam Crescent to a target depth of 10.0mbgl, on 17 February 2025, by CPT Elite. Raw CPT results have been processed using CPet-IT software developed by Geologismiki Ltd. The location of the CPT test can be found on the site plan attached in Appendix 1 with liquefaction analysis results in Appendix 3.

5.5. Water Table

The groundwater table was encountered during hand auger investigations at a depth range of 1.3m-1.7bgl. A groundwater level of 1.0mbgl has been assumed for the liquefaction analysis to account for a rise in groundwater during cyclic shaking.

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5.6. Site Subsoil Classification

It can be seen from the interpreted ground profile presented in Section 6.1, that competent rock was not encountered, and a deep soil profile is anticipated. Therefore, a Class D – "Deep Soil" Site classification has been assumed, in accordance with NZS1170.5:2004.

Further investigation could be completed to refine the subsoil classification though are not deemed necessary for this project.

5.7. Natural Hazard Assessment

The risk of natural hazards has been assessed at 85 Ludlam Crescent in accordance with Section 106 of the Resource Management Act (RMA). The hazards, associated risk and remedial recommendations can be found considered include:

- Inundation, which may be sourced from coastal processes, waterways, or precipitation.
- Subsidence, the removal of underlying support by natural or artificial means.
- Falling debris, including rockfall that could impact the site from upslope sources.
- Erosion, surface, and subsurface erosion associated with wind and water.
- Slippage, which is defined as the downslope transfer of materials by sliding and/or flowage.

The site is situated on flat ground and is not within proximity to any sloping ground. Therefore a risk of slippage, falling debris and erosion is not considered.

The site is not mapped within proximity to any nearby waterways or coastal areas. Though the site is mapped within a relevant flood inundation zone as per the Hutt City Council: GIS Maps – District Plan – Flood Hazard Overlay. Therefore, a minor risk of inundation due to flooding is to be considered. An assessment by Wellington Water dated 05 March 2025 considers the risk of obstructing flow path as low.

Liquefaction analysis shows a moderate risk of liquefaction impacting the proposed development in a future ULS seismic event. The site is also underlain by low bearing soils and uncontrolled FILL material in areas. Therefore, a risk of underlying loss of support is to be considered during static conditions and following a seismic event. Foundation recommendations have been made to remediate the risk of liquefaction for a TC2 site and have factored in the unsuitable low bearing soils. We consider the risk of loss of underlying support to be low, provided that the remedial recommendations made in this report are followed.

It is our professional opinion that there are no geological features that would pose a significant risk to the performance of the foundation system for the proposed development, provided that an appropriate foundation system is designed and signed off by a suitably qualified structural and geotechnical engineer.

6. Liquefaction Analysis

A liquefaction analysis has been completed using the raw CPT data undertaken at 85 Ludlam Crescent, Woburn, Lower Hutt due to an anticipated shallow groundwater table and the site being situated in a moderate to high-risk liquefaction zone. Liquefaction analysis has been performed using the software Cliq by Geologismiki Ltd using

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the Boulanger & Idriss (2014) methodology, to assess the liquefaction potential of the ground profile encountered at the site. The assessment of liquefaction has been undertaken under the ultimate limit state (ULS) criteria and serviceability limit state (SLS).

6.1. Ultimate Limit State and Serviceability Limit State

The proposed development at 85 Ludlam Crescent is classified as a residential development and is therefore classified as importance level 2 in accordance with NZS 1170.0:2022. Importance level 2 buildings are required to be designed to resist earthquake shaking with an annual probability of exceedance of 1/500 (500-year return period) defined as the ultimate limit state (ULS), In accordance with NZS 1170.5:2004. Developments and structures are expected to retain their structural integrity during a ULS seismic event to avoid collapse and endanger life.

Additionally, importance level 2 buildings sustain little to no structural damage under a serviceability limit state (SLS) design case. An SLS event is based on earthquake shaking with a 25-year return period.

Ultimate limit state: A PGA value of 0.68g and an earthquake magnitude of 7.7 have been applied to the liquefaction analysis in accordance with the updated MBIE Module 1 guidelines for the Wellington Region.

Serviceability limit state: A PGA value of 0.13g and an earthquake magnitude of 6.5 have been applied to the liquefaction analysis in accordance with the updated MBIE Module 1 guidelines for the Wellington Region.

6.2. Liquefaction Severity Number

The Liquefaction Severity Number (LSN) is a method by Van Ballegooy et al (2013) which provides an estimate of the anticipated damage at the ground surface. Refer to Table 3 below for the LSN classifications.

Table 3: LSN Damage Classifications

LSN Range	Estimated damage classification
0 – 10	Little to No ground damage
10 – 20	Minor damage
20 – 30	Moderate damage
30 – 40	Moderate to Major damage
40 – 50	Major damage
50+	Severe damage

6.3. Liquefaction Summary

A summary of the liquefaction results under ULS and SLS conditions at 85 Ludlam Crescent, Woburn, Lower Hutt can be found below in Table 4. Liquefaction induced settlement values under ULS and SLS seismic conditions indicate the site classifies as TC2 site in accordance with the Canterbury Technical Guidance. LSN values indicate there is minor risk of expression or damage. Lateral spreading is not considered as a risk as the site is flat and not situated within proximity to a waterway.

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Table 4: Summary of liquefaction analysis results

Test location	Limit State	LSN Range	Lateral Displacement (cm)	Settlement (mm)
CPT01	ULS	6	-	45
	SLS	<1	-	5

7. Engineering Recommendations

7.1.1. Piled Enhanced Foundation Slab (Piled Waffle Slab)

Low bearing soils and unsuitable soils such as organic SILT and PEAT are encountered at various locations across the site to a maximum depth of 2.0mbgl and the site classifies as a TC2 site in accordance with the Canterbury Technical Guidance. Therefore, where a concrete floor is preferred it is recommended that piled foundations are incorporated into a SED TC2 compliant waffle slab with piles embedded below a depth in which an ultimate bearing capacity in excess of 300kPa is encountered. The TC2 compliant waffle slab (i.e. Xpod) would handle the seismic case while the incorporated piles would be implemented for the static case in order to achieve sufficient bearing capacity. It is recommended that concrete encased timber piles, driven timber piles or concrete piles are incorporated into the SED TC2 compliant waffle slab (i.e. Xpod) and embedded at a minimum depth of 2.0mbgl where an ultimate bearing capacity in excess of 300kPa is achieved. Exact pile embedment depths and specification shall be determined by the designing engineer. Foundation design to be carried out by a suitably qualified engineer. All TOPSOIL is to be stripped and replaced with compacted engineered FILL to create a smooth working platform for foundation construction.

Additional geotechnical investigations will be required following the removal of existing structures/obstructions on site. This is to be implemented as a condition of consent by the Hutt City Council.

7.2. Timber Subfloor Construction

Timber floors in combination with light weight roofing and light or medium weight claddings provide several advantages with regard to ease of repair and relevelling. A timber subfloor with driven timber piles or concrete encased timber piles can be implemented and constructed in accordance with NZS3604:2011. Piles are to be embedded below a depth of 2.0mbgl where an ultimate bearing capacity in excess of 300kPa was consistently achieved across the site. Exact embedment depths are to be determined by the designing engineer. This foundation system can be implemented for Type A and Type B dwellings though it should be noted that piles will need to incorporated under perimeter walls for a Type B dwelling to transfer the load of the perimeter wall down to competent bearing ground. A minimum 450mm crawl space is required for future maintenance, repairs, and relevelling where necessary. For more information please refer to Canterbury Technical Guidance Part A – Page 5.12.

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7.3. Earthworks

Any earthworks conducted at the site should be undertaken and tested in accordance with NZS4431:2022. All engineered or structural hardfill should be placed in 150-250 mm lifts and be compacted to a minimum of 95% of maximum dry density. Compaction should be achieved using standard plant and methodology suitable for the imported material. A water source should be maintained on-site for moisture control. The fill must be tested and certified in accordance with NZS4431:2022 if the thickness exceeds 300 mm and monitored by a suitably qualified engineer. Fill may be battered down to natural ground at a maximum grade of 1V in 2.0H if possible and the subgrade should be adequately benched, and the topsoil removed. Alternatively, any compacted fill on site should be retained by retaining structures.

Wherever filling or soft native ground is present at foundation level it should be undercut and replaced with approved compacted hardfill. Its suitability or otherwise as a bearing material beneath the floor slab should be determined on-site by the Engineer.

- Compacted hard FILL beneath the building platform exceeding a depth of 300 mm will require testing and certification by a suitably qualified engineer as per NZS4431:2022 requirements.
- A geotechnical engineer/ engineering geologist should be contacted if varying ground conditions are encountered during excavations.

7.4. Construction Monitoring

Construction monitoring should be carried out during the construction stage of the project by a suitably qualified engineer. Construction monitoring should include but is not limited to:

- Stripped ground inspection to ensure all TOPSOIL has been removed (where a piled TC2 compliant slab option is preferred).
- Oversee driven timber piles or pile hole excavations to ensure the minimum recommended embedment depth has been achieved within competent bearing soils.

7.5. Further Investigation

Additional testing is required once existing structures are removed from site to confirm ground conditions and bearing capacity values in the proposed location of units 5-8. Geotechnical investigations shall consist of hand augers/window samples with shear vane testing and scala penetrometers.

7.6. Drawing Review

Cohesive Consulting should be given the opportunity to review the final working drawings for this development to ensure that our recommendations have been interpreted as intended. We reserve the right to revisit and add to our recommendations when these plans are made available.

8. Safety in Design

The recommendations made in this report have been made with regards to Safety in Design, which should be considered during the design phase. The following points were raised during planning for safety in design:

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- Construction monitoring needs to be considered.

9. Conclusions

Cohesive Consulting have been engaged by James and Will Edmonds to provide a geotechnical report for the proposed development at 85 Ludlam Crescent, Woburn, Lower Hutt, in support of a resource consent and building consent application with the Hutt City Council. Geotechnical investigations indicate that the site is presently stable, and the subsoil properties have adequate strength parameters necessary for the proposed development, provided that the recommendations made in this report are followed.

The development will need to be carried out in accordance with proper engineering practice and the following guidelines:

1. The ground profile for 85 Ludlam Crescent consists of a thin layer of TOPSOIL and uncontrolled FILL to a maximum depth of 0.5mbgl, this is underlain by layers of sandy SILT/SILT to a depth of 1.8mbgl. Layers of organic SILT and silty PEAT were observed from a depth range of 1.1-1.7mbgl in two test locations (HA02 & HA05) followed by layers of SAND/gravelly SAND to a maximum depth of 2.1mbgl where refusal of the hand auger investigation was encountered. CPT results show this is followed by a layer of CLAY to a depth of 3.5mbgl followed by dense to very dense gravelly SAND/sandy GRAVEL to a depth of 6.97mbgl. This is then underlain by layers of SAND and silty SAND to a depth of 10.0mbgl where target depth of the CPT investigation was encountered.
2. Scala penetrometer results show that an ultimate bearing capacity (UBC) in excess of 200kPa (100kPa dependable) is available from a depth of 1.7mbgl, below the encountered unsuitable soils (organic SILT and PEAT). A geotechnical ultimate bearing capacity in excess of 300kPa (150kPa dependable) is available from a depth of 2.0mbgl.
3. A site subsoil Class D – "Deep Soil" Site classification has been assumed, in accordance with NZS1170.5:2004.
4. The groundwater table was encountered during hand auger investigations at a depth range of 1.3m-1.7bgl. A groundwater level of 1.0mbgl has been assumed for the liquefaction analysis to account for a rise in groundwater during cyclic shaking.
5. Liquefaction induced settlement values under ULS and SLS seismic conditions indicate the site classifies as TC2 site in accordance with the Canterbury Technical Guidance.
6. It is our professional opinion that there are no geological features that would pose a significant risk to the performance of the foundation system for the proposed development, provided that an appropriate foundation system is designed and signed off by a suitably qualified structural and geotechnical engineer.
7. The site is considered stable for the proposed development provided the recommendations in this report are followed.

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8. The following foundation options are considered suitable for the proposed development in accordance with the Canterbury Technical Guidance:

- Where a concrete slab is preferred, it is recommended that concrete encased timber piles, driven timber piles or concrete piles are incorporated into the SED TC2 compliant waffle slab (i.e. Xpod) and embedded at a minimum depth of 2.0mbgl where an ultimate bearing capacity in excess of 300kPa is achieved. Exact pile embedment depths and specification shall be determined by the designing engineer. Foundation design to be carried out by a suitably qualified engineer. All TOPSOIL is to be stripped and replaced with compacted engineered FILL to create a smooth working platform for foundation construction.
- Where a timber subfloor is preferred, piles are to be embedded below a depth of 2.0mbgl where an ultimate bearing capacity in excess of 300kPa was consistently achieved across the site. Exact embedment depths are to be determined by the designing engineer. This foundation system can be implemented for Type A and Type B dwellings though it should be noted that piles will need to incorporated under perimeter walls for a Type B dwelling to transfer the load of the perimeter wall down to competent bearing ground. A minimum 450mm crawl space is required for future maintenance, repairs, and relevelling where necessary.

9. Construction monitoring should be considered during the construction stage of the project.
10. Any earthworks conducted at the site should be undertaken and tested in accordance with NZS4431:2022.

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10. Limitations

This geotechnical report has been prepared for James and Will Edmonds with respect to the proposed multi-unit development at 85 Ludlam Crescent, Lower Hutt. It shall not be relied upon for any other purpose. The reliance by other parties on the information or opinions contained in this report shall, without our prior review and agreement in writing, be at such parties' sole risk.

Opinions and judgments expressed herein are based on our understanding and interpretation of current regulatory standards and should not be construed as legal opinions. Where opinions or judgments are to be relied on, they should be independently verified with appropriate legal advice. Any recommendations, opinions, or guidance provided by Cohesive Consulting in this report are limited to technical engineering requirements and are not made under the Financial Advisers Act 2008.

Recommendations and opinions in this report are based on data from testing and observations undertaken on site. The nature and continuity of subsoil conditions away from the tests are inferred and it must be appreciated that actual conditions could vary considerably from the assumed model.

During excavation and construction, the site should be examined by a geotechnical engineer or Engineering Geologist to judge whether the exposed subsoils are compatible with the inferred conditions on which the report has been based. It is possible that the nature of the exposed subsoils may require further investigation and the modification of the design based on this report. In any event, it is essential that the firm is notified if there is any variation in subsoil conditions from those described in the report as it may affect the design parameters recommended in the report.

Cohesive Consulting have performed the services for this project in accordance with the standard agreement for consulting services and current professional standards for environmental site assessment. No guarantees are either expressed or implied.

There is no investigation which is thorough enough to preclude the presence of materials at the site which presently, or in the future, may be considered hazardous. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants present and considered to be acceptable now may in the future become subject to different regulatory standards which cause them to become unacceptable and require further remediation for this site to be suitable for the existing or proposed land use activities.

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Appendix 1: Site Investigation Plan

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COHESIVE

SITE PLAN

JOB NO.: 1000-054-026

CLIENT:	Will Edmonds
PROJECT:	Geotechnical Investigation
LOCATION:	85 Ludlam Crescent, Woburn, Lower Hutt



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Appendix 2: Site Investigation Results

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GEOTECHNICAL INVESTIGATION

PROJECT: 85 Ludlam Crescent, Woburn, Lower Hutt

CLIENT: Will Edmonds

ATTENTION: Will Edmonds

ANTICIPATED GEOLOGY (GNS MAPS)



Underlying geology of the investigation area has been mapped as Holocene River Deposits

Source: Geology of the site from GNS 1:250000 Geological Map of New Zealand

TEST METHODS *Hand Auger Boreholes - NZGS: December 2005*
NZGI: April 2017

Dynamic Cone Penetrometer - NZS4402: 1988 Test 6.5.2

Shear Vane Test - NZGS: August 2001

Maika Fraser
Director, BSc

INTERNAL JOB NO:
1000-054-026

s7(2)(a)
E: info@csvgeotechnical.co.nz

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INVESTIGATION LOG

COHESIVE

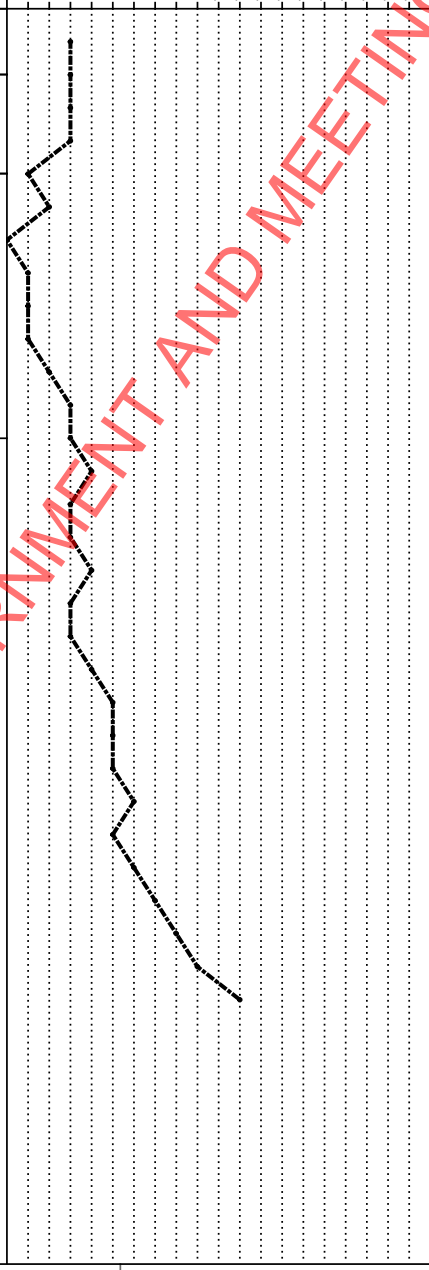
HOLE NO.: HA01/DCP01

CLIENT: Will Edmonds
PROJECT: Geotechnical Investigation
JOB NO.: 1000-054-026

SITE LOCATION: 85 Ludlam Crescent, Woburn, Lower Hutt
START DATE: 17/02/2025
CONTRACTOR: Cohesive
END DATE: 17/02/2025
RIG: Hand Auger
DRILLER: D.R/A.L
LOGGED BY: D.R

MATERIAL DESCRIPTION (See Classification & Symbology sheet for details)	DEPTH (m)	LEGEND	USCS
TOPSOIL	0.2		OL
Silty SAND with trace gravel, trace rootlets and carbonaceous material, brown with orange mottling, dry, loose, poorly graded; gravel fine to medium, rounded to angular, moderately to completely weathered, extremely weak to strong; sand fine to coarse [FILL]	0.4		SM
SILT with some sand and trace gravel, brown with orange streaking, moist, stiff, high plasticity; gravel fine to medium, rounded, completely weathered, extremely weak; sand fine to medium [ALLUVIUM]	0.6		MH
Colour change: grey with orange streaking; Moisture change: moist to wet	1.0		
Moisture change: wet to saturated	1.2		
End of augerhole: hole collapse	1.4		
	1.6		
	1.8		
	2.0		
	2.2		
	2.4		
	2.6		
	2.8		
	3.0		
	3.2		
	3.4		
	3.6		

SCALA PENETROMETER (blows / 100mm)



SHEAR VANE (Corrected)

SV: 0.60m, 68/32

SV: 1.00m, 74/50

WATER

1.30m

PHOTO(S)

LEGEND

HA01/DCP01

REMARKS

N/A

WATER

Static Water Level

INVESTIGATION TYPE

- [x] Hand Auger
- [ ] Test Pit

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Generated with CORE-GS by Geroc - Window Sampler - Geotechnical Investigation - 18/02/2025 4:56:35 pm

INVESTIGATION LOG

COHESIVE

HOLE NO.: HA02/DCP03

CLIENT: Will Edmonds
PROJECT: Geotechnical Investigation
JOB NO.: 1000-054-026

SITE LOCATION: 85 Ludlam Crescent, Woburn, Lower Hutt
START DATE: 17/02/2025
CONTRACTOR: Cohesive
END DATE: 17/02/2025
RIG: Hand Auger
DRILLER: D.R/A.L
LOGGED BY: D.R

MATERIAL DESCRIPTION (See Classification & Symbology sheet for details)	DEPTH (m)	LEGEND	USCS	SCALA PENETROMETER (blows / 100mm)	SHEAR VANE (Corrected)	WATER
TOPSOIL	0.2		OL			
Silty SAND with trace gravel and rootlets, brown with orange mottling, dry, loose to medium dense, poorly graded; gravel fine to coarse, rounded, moderately weathered, strong; sand fine to coarse [ALLUVIUM]	0.4, 0.6, 0.8		SM			
Sandy SILT with trace gravel, brown with grey streaking, moist, stiff to very stiff, moderate to high plasticity; gravel fine to coarse, rounded to sub-angular, moderately weathered, strong; sand fine to coarse [ALLUVIUM]	1.0, 1.2		MH		SV: 1.00m, 106/53	
Sandy Organic SILT with trace gravel, grey with brown streaking, wet to saturated, soft to very stiff, high plasticity; gravel fine to medium, rounded, moderately weathered, strong; sand fine to coarse [ALLUVIUM]	1.4, 1.6				SV: 1.50m, 124/103	1.60m
End of augerhole: hole collapse	1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4, 3.6					

PHOTO(S)

LEGEND

HA02/DCP03

REMARKS

Shear vane at 1.5mbgl may be inaccurate due to soft saturated material

WATER

Static Water Level

INVESTIGATION TYPE

- [x] Hand Auger
- [ ] Test Pit

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COHESIVE

INVESTIGATION LOG

HOLE NO.: HA03/DCP06

CLIENT: Will Edmonds
PROJECT: Geotechnical Investigation
JOB NO.: 1000-054-026

SITE LOCATION: 85 Ludlam Crescent, Woburn, Lower Hutt
START DATE: 17/02/2025
CONTRACTOR: Cohesive
END DATE: 17/02/2025
RIG: Hand Auger
DRILLER: D.R/A.L
LOGGED BY: D.R

MATERIAL DESCRIPTION (See Classification & Symbology sheet for details)	DEPTH (m)	USCS
TOPSOIL	0.0 – 0.2	OL
Sandy SILT with trace gravel and carbonaceous material, greyish brown with orange mottling, moist, stiff to very stiff, low to moderate plasticity; gravel fine to coarse, rounded to sub-rounded, moderately weathered, strong; sand fine to coarse [ALLUVIUM]	0.2 – 1.0	ML
Composition change: no carbonaceous material; Plasticity change: high plasticity [ALLUVIUM]	1.0 – 1.8	MH
SAND with some silt and trace gravel, grey, wet to saturated, loose to dense, poorly graded; gravel fine to coarse, rounded, moderatley weathered, strong; sand fine to coarse [ALLUVIUM]	1.8 – 2.0	SP
End of augerhole: hole collapse	2.0	



SHEAR VANE (Corrected)

- SV: 0.40m, 106/20
- SV: 1.10m, 133/62
- SV: 1.50m, 144/62

WATER

- 1.70m

PHOTO(S)

LEGEND

HA03/DCP06

REMARKS

N/A

WATER

Static Water Level

INVESTIGATION TYPE

- [x] Hand Auger
- [ ] Test Pit

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COHESIVE

INVESTIGATION LOG

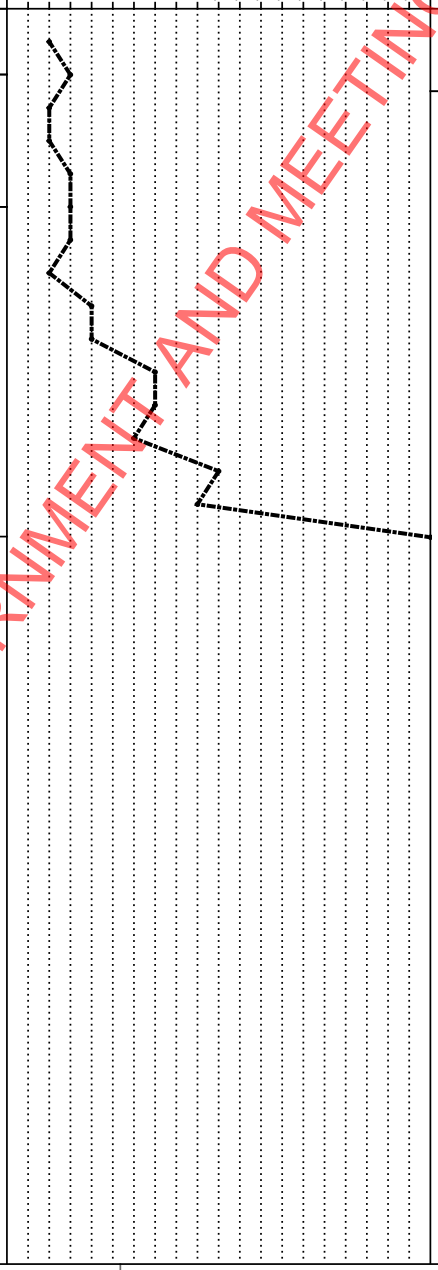
HOLE NO.: HA04/DCP07

CLIENT: Will Edmonds
PROJECT: Geotechnical Investigation
JOB NO.: 1000-054-026

SITE LOCATION: 85 Ludlam Crescent, Woburn, Lower Hutt
START DATE: 17/02/2025
CONTRACTOR: Cohesive
END DATE: 17/02/2025
RIG: Hand Auger
DRILLER: D.R/A.L
LOGGED BY: D.R

MATERIAL DESCRIPTION (See Classification & Symbology sheet for details)	DEPTH (m)	USCS
TOPSOIL	0.2	OL
Sandy SILT with trace gravel and carbonaceous material, greyish brown with orange mottling, moist, stiff to very stiff, low to moderate plasticity; gravel fine to coarse, rounded to sub-rounded, moderately weathered, strong; sand fine to coarse [ALLUVIUM]	0.6	ML
SAND with some silt and trace gravel, grey, moist, loose to medium dense, poorly graded; gravel fine, sub-rounded to sub-angular, completely weathered, extremely weak; sand fine to coarse [ALLUVIUM]	1.0	SP
SAND, bluish grey, moist to wet, dense, poorly graded; sand fine to coarse [ALLUVIUM]	1.4	
Gravelly SAND, grey, wet to saturated, very dense, poorly graded; gravel fine to coarse, rounded, slightly weathered, strong; sand fine to coarse [ALLUVIUM]	1.6	
End of augerhole: effective refusal	1.8	
	2.0	
	2.2	
	2.4	
	2.6	
	2.8	
	3.0	
	3.2	
	3.4	
	3.6	

SCALA PENETROMETER (blows / 100mm)



SHEAR VANE (Corrected)

SV: 0.25m, 159/29

WATER

Groundwater Not Encountered

PHOTO(S)

LEGEND

HA04/DCP07

REMARKS

N/A

WATER

Static Water Level

INVESTIGATION TYPE

- [x] Hand Auger
- [ ] Test Pit

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INVESTIGATION LOG

COHESIVE

HOLE NO.: HA05/DCP10

CLIENT: Will Edmonds
PROJECT: Geotechnical Investigation
JOB NO.: 1000-054-026

SITE LOCATION: 85 Ludlam Crescent, Woburn, Lower Hutt
START DATE: 17/02/2025
CONTRACTOR: Cohesive
END DATE: 17/02/2025
RIG: Hand Auger
DRILLER: D.R/A.L
LOGGED BY: D.R

MATERIAL DESCRIPTION (See Classification & Symbology sheet for details)	DEPTH (m)	USCS
TOPSOIL	0.0 – 0.2	OL
Sandy SILT with trace gravel and carbonaceous material, greyish brown with orange mottling, moist, stiff to very stiff, low to moderate plasticity; gravel fine to coarse, rounded to sub-rounded, moderately weathered, strong; sand fine to coarse [ALLUVIUM]	0.2 – 1.2	MH
Silty PEAT with trace wood fragments and gravel, dark grey, wet, soft, high plasticity; gravel fine, rounded, moderately weathered, strong; sand fine to coarse [ALLUVIUM]	1.2 – 1.6	Pt
Gravelly SAND, grey, wet to saturated, medium dense, poorly graded; gravel fine to coarse, rounded, slightly weathered, strong; sand fine to coarse [ALLUVIUM]	1.6 – 1.8	SP
End of augerhole: hole collapse	1.8	

SCALA PENETROMETER (blows / 100mm)

SHEAR VANE (Corrected)

- SV: 0.20m, 206+
- SV: 0.65m, 150/44

WATER

- 1.65m

PHOTO(S)

LEGEND

- HA05/DCP10

REMARKS

N/A

WATER

- Static Water Level

INVESTIGATION TYPE

- [x] Hand Auger
- [ ] Test Pit

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INVESTIGATION LOG

COHESIVE

HOLE NO.: HA06/DCP12

CLIENT: Will Edmonds
PROJECT: Geotechnical Investigation
JOB NO.: 1000-054-026

SITE LOCATION: 85 Ludlam Crescent, Woburn, Lower Hutt
START DATE: 17/02/2025
CONTRACTOR: Cohesive
END DATE: 17/02/2025
RIG: Hand Auger
DRILLER: D.R/A.L
LOGGED BY: D.R

MATERIAL DESCRIPTION (See Classification & Symbology sheet for details)	DEPTH (m)	LEGEND	USCS	SCALA PENETROMETER (blows / 100mm)	SHEAR VANE (Corrected)	WATER
TOPSOIL	0.2, 0.4	TS				
Sandy SILT with trace gravel and carbonaceous material, greyish brown with orange mottling, moist, stiff to very stiff, low to moderate plasticity; gravel fine to coarse, rounded to sub-rounded, moderately weathered, strong; sand fine to coarse [ALLUVIUM]	0.6, 0.8, 1.0				SV: 0.50m, 124/21 SV: 1.00m, 65/21	
Sandy SILT with trace gravel, bluish grey, wet, soft, high plasticity; gravel fine to coarse, sub-rounded to angular, moderately to highly weathered, moderately strong to strong; sand fine to coarse [ALLUVIUM]	1.2, 1.4, 1.6				SV: 1.50m, 71/24	
End of augerhole: hole collapse	1.8, 2.0, 2.2, 2.4, 2.6, 2.8, 3.0, 3.2, 3.4, 3.6					Groundwater Not Encountered

PHOTO(S)

LEGEND

HA06/DCP12

REMARKS

N/A

WATER

Static Water Level

INVESTIGATION TYPE

- [x] Hand Auger
- [ ] Test Pit

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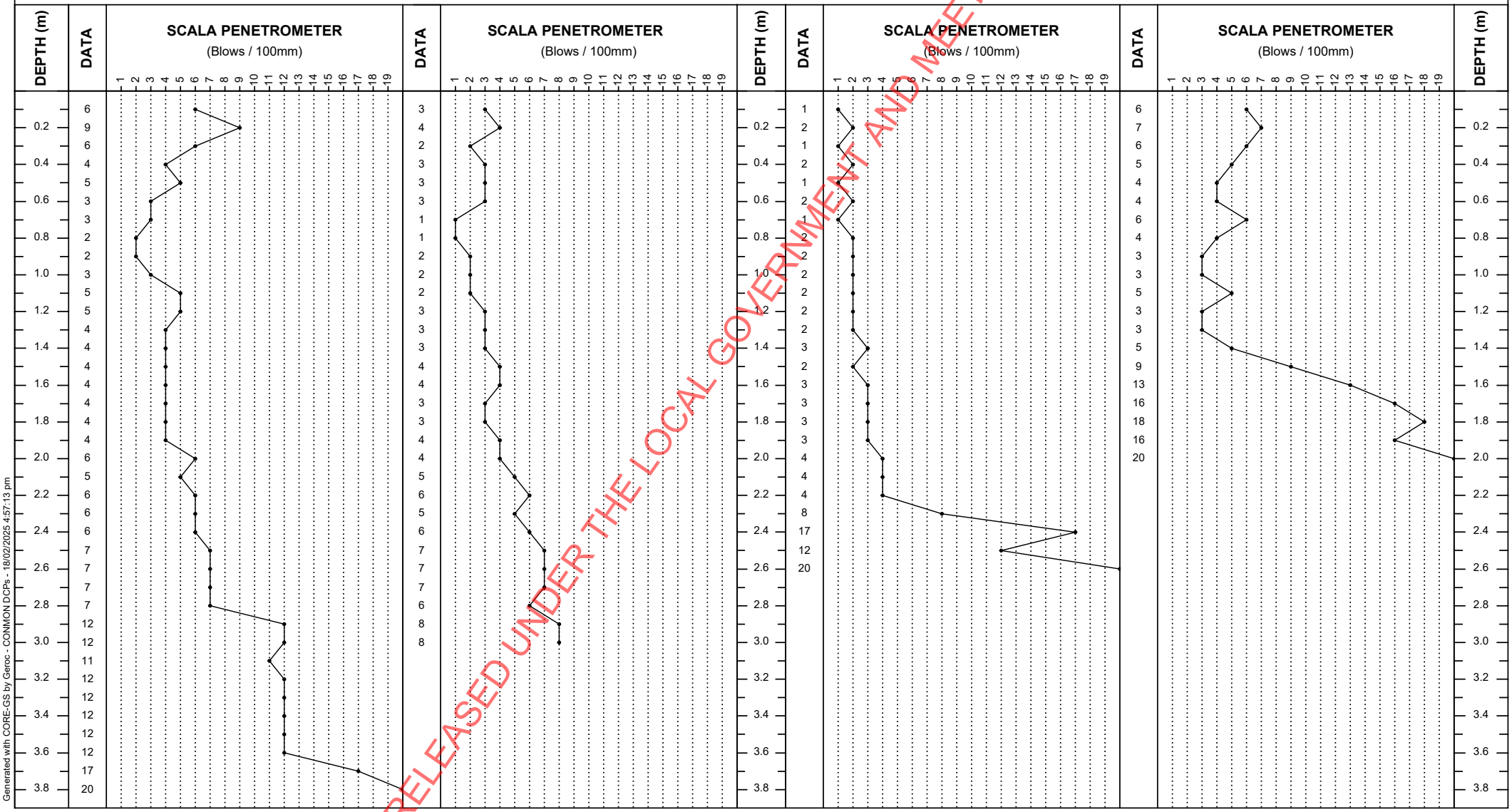
COHESIVE

Client: Will Edmonds

Project: Geotechnical Investigation

Address: 85 Ludlam Crescent, Woburn, Lower Hutt

DCP02	DCP04	DCP05	DCP08
Tested By: D.R	**Tested By:** D.R	**Tested By:** D.R	**Tested By:** D.R
Test Date: 17-Feb-25	**Test Date:** 17-Feb-25	**Test Date:** 17-Feb-25	**Test Date:** 17-Feb-25
Remarks: N/A			



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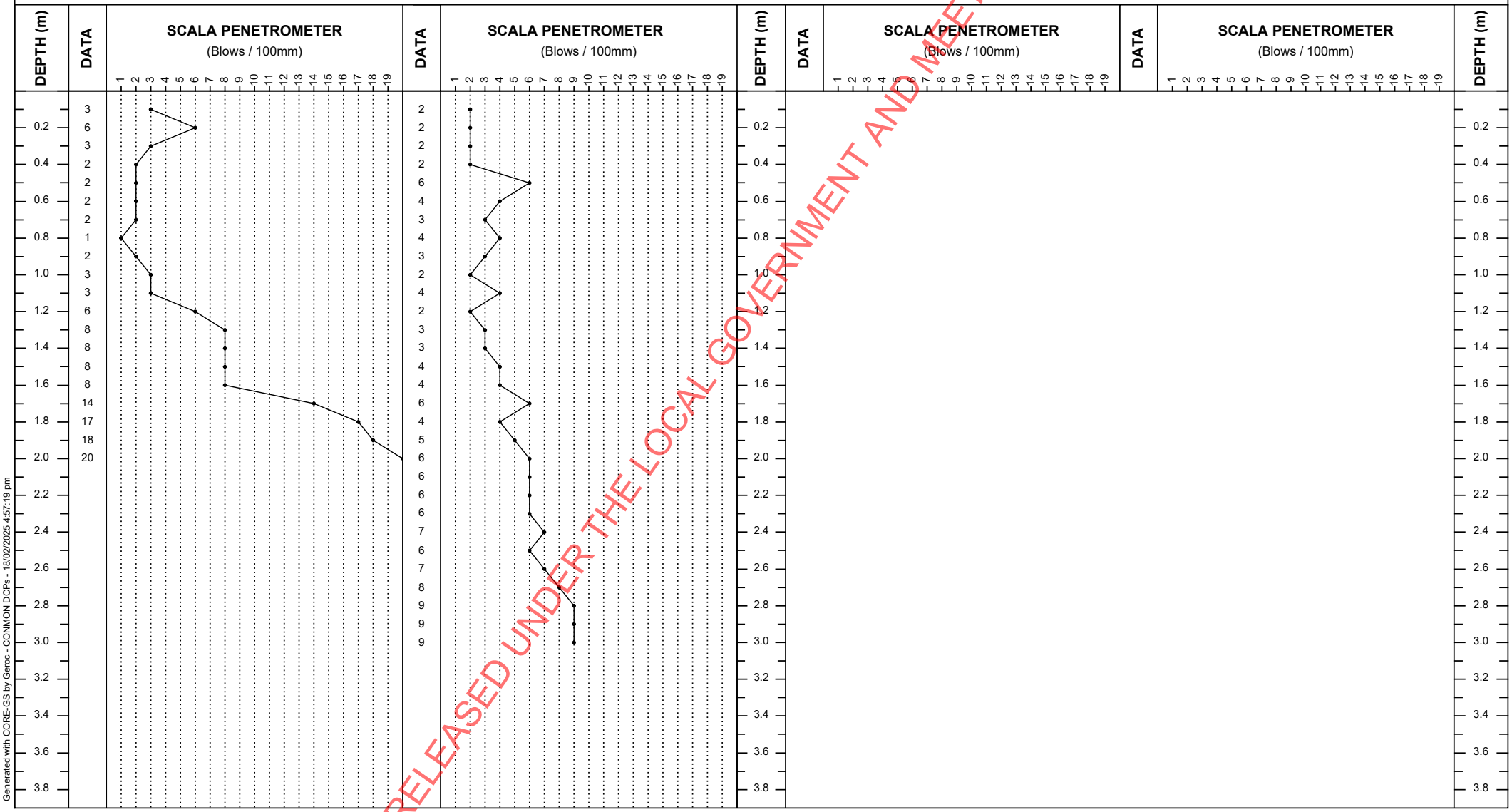
COHESIVE

Client: Will Edmonds

Project: Geotechnical Investigation

Address: 85 Ludlam Crescent, Woburn, Lower Hutt

DCP09	DCP11		
Tested By: D.R	**Tested By:** D.R	**Tested By:**	**Tested By:**
Test Date: 17-Feb-25	**Test Date:** 17-Feb-25	**Test Date:**	**Test Date:**
Remarks: N/A			



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Appendix 3: Liquefaction Analysis

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GeoLogismiki
Geotechnical Engineers
Merarhias 56
http://www.geologismiki.gr

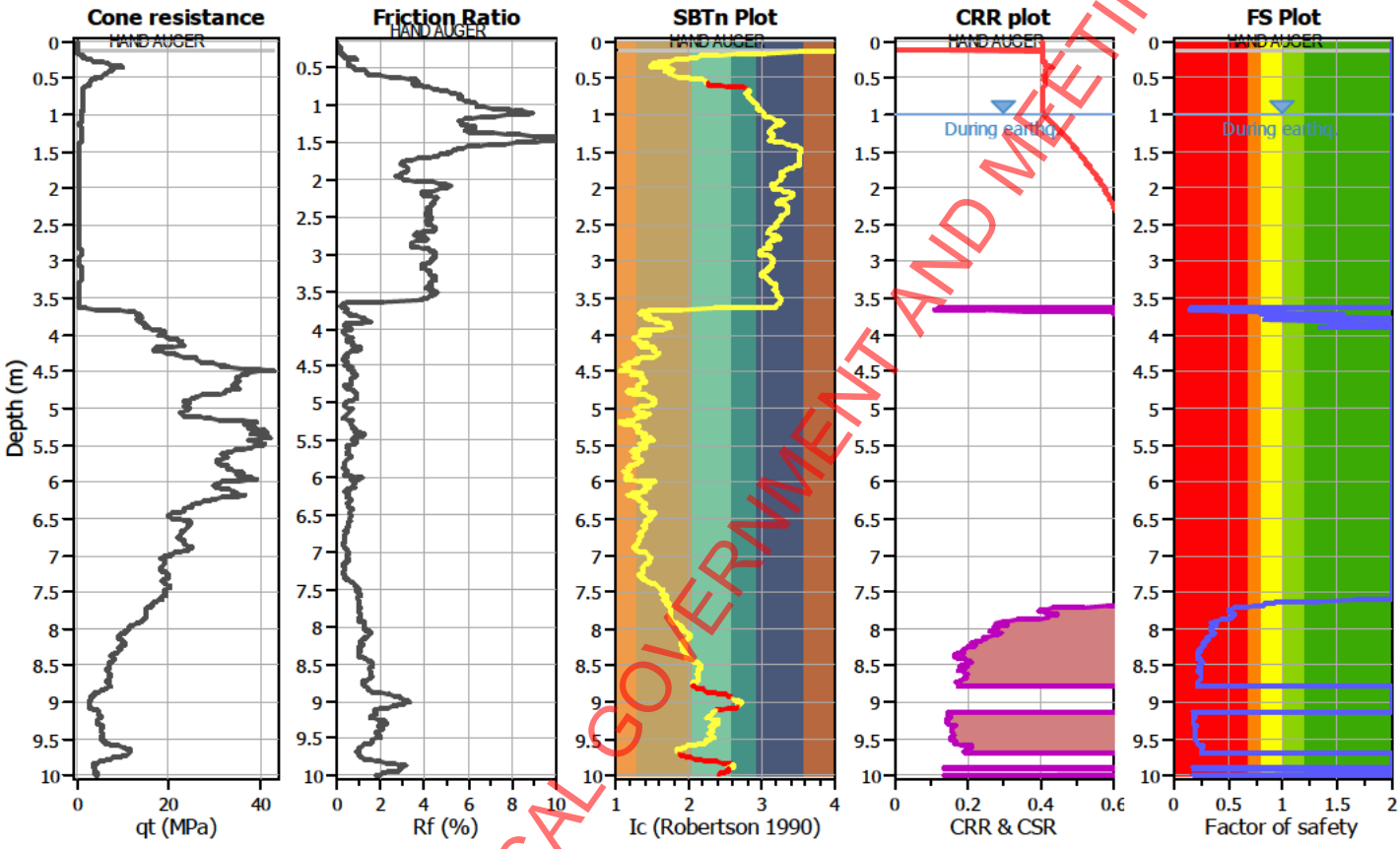
LIQUEFACTION ANALYSIS REPORT

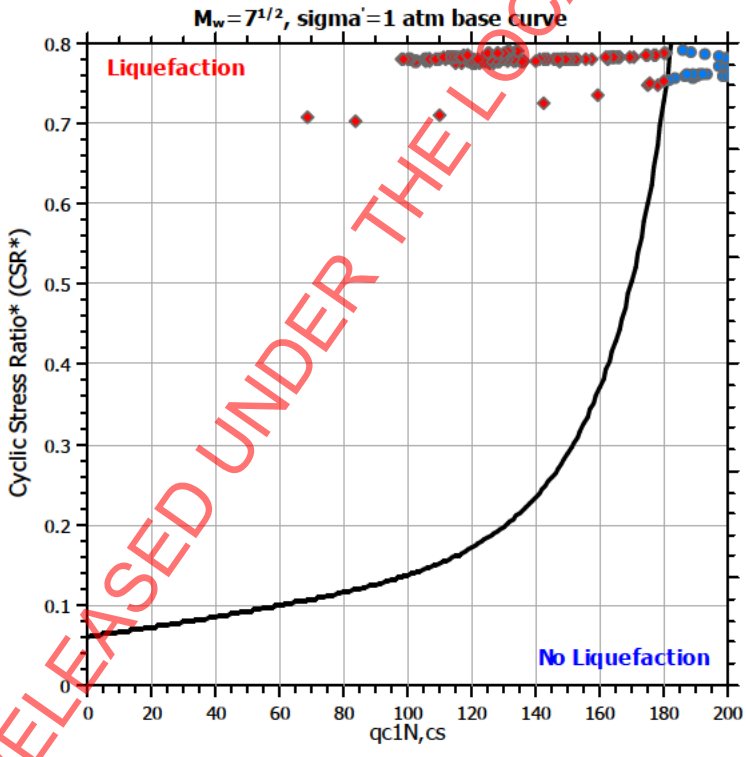
Project title : Liquefaction Analysis **Location : 85 Ludlam Crescent, Lower Hutt**

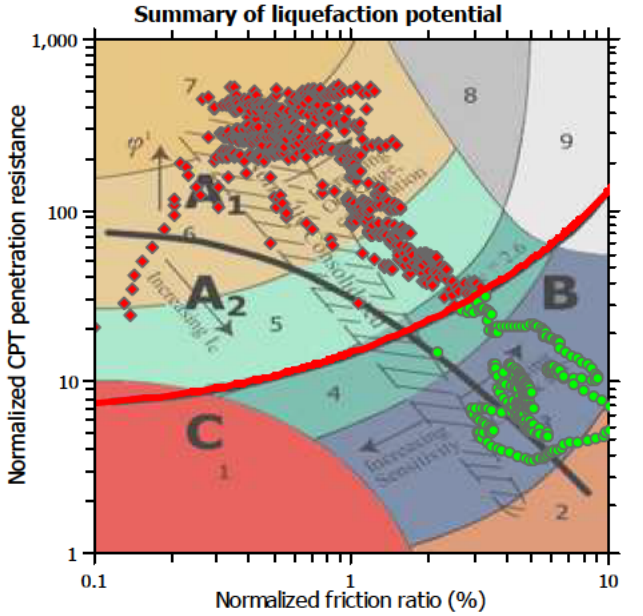
CPT file : CPT01_ULS

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.30 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	7.70	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method
Peak ground acceleration:	0.68	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		







Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

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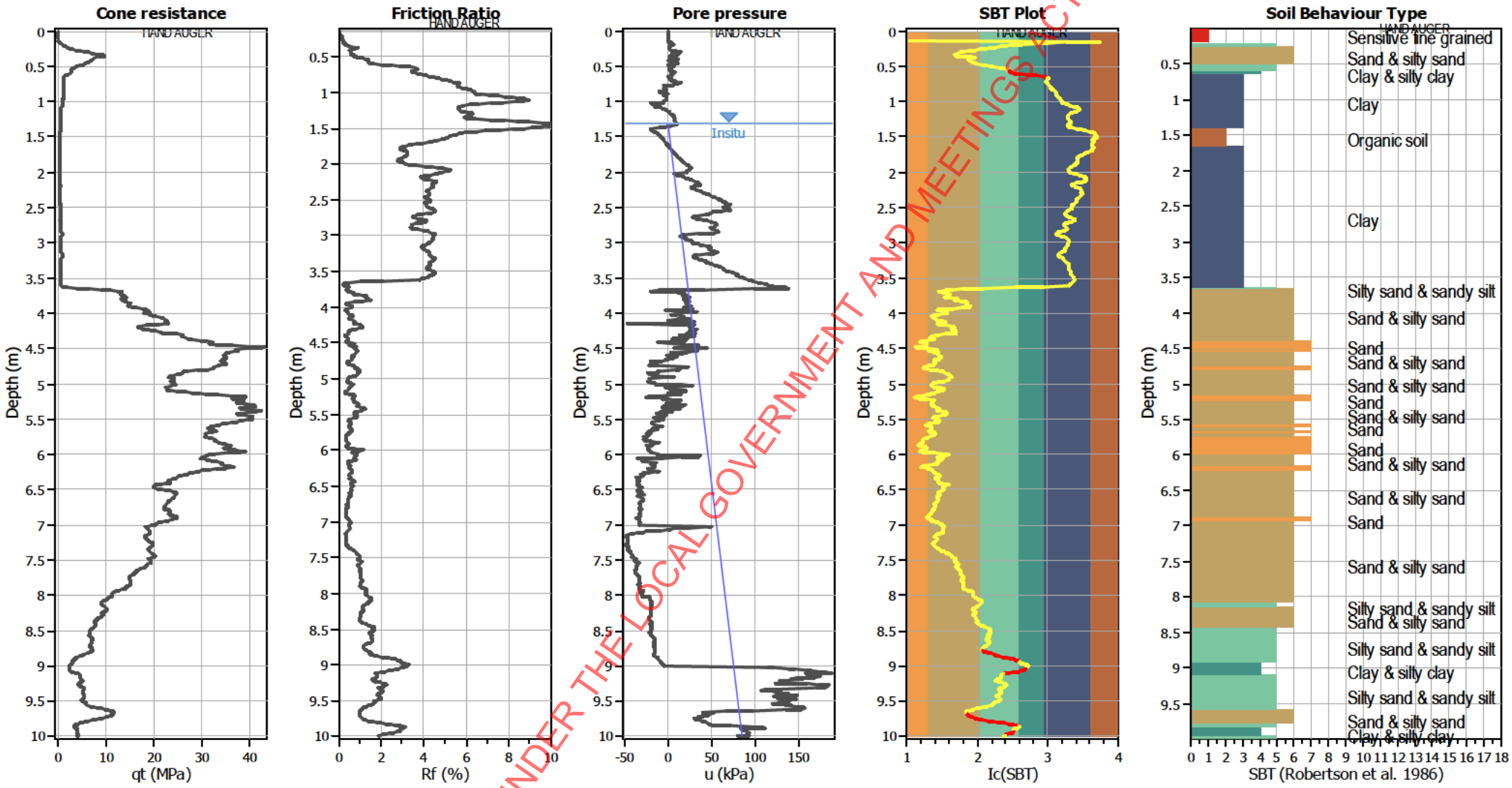
CPT basic interpretation plots



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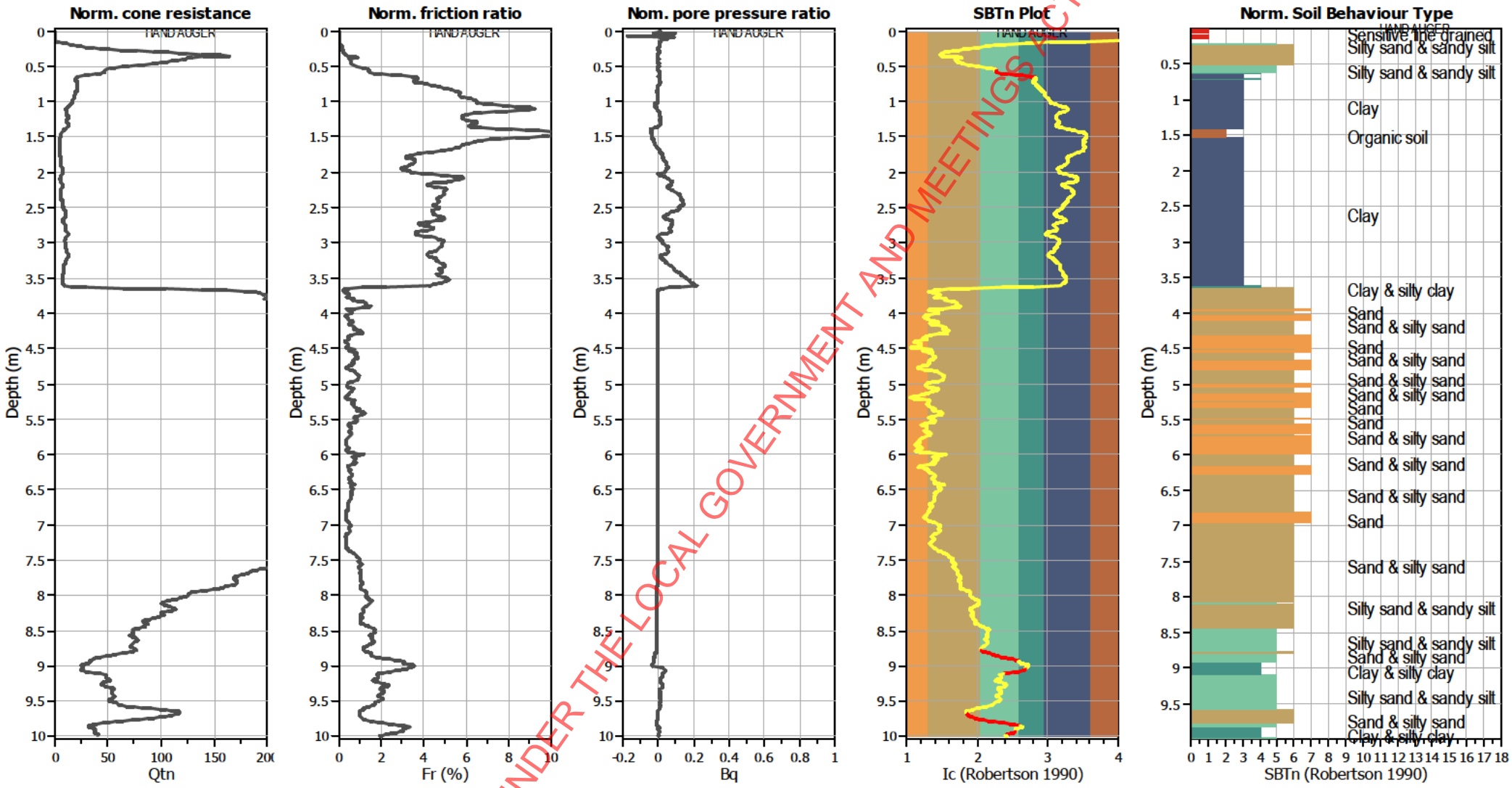
Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



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Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	No
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SBTn legend

1. Sensitive fine grained
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3. Clay to silty clay
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5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

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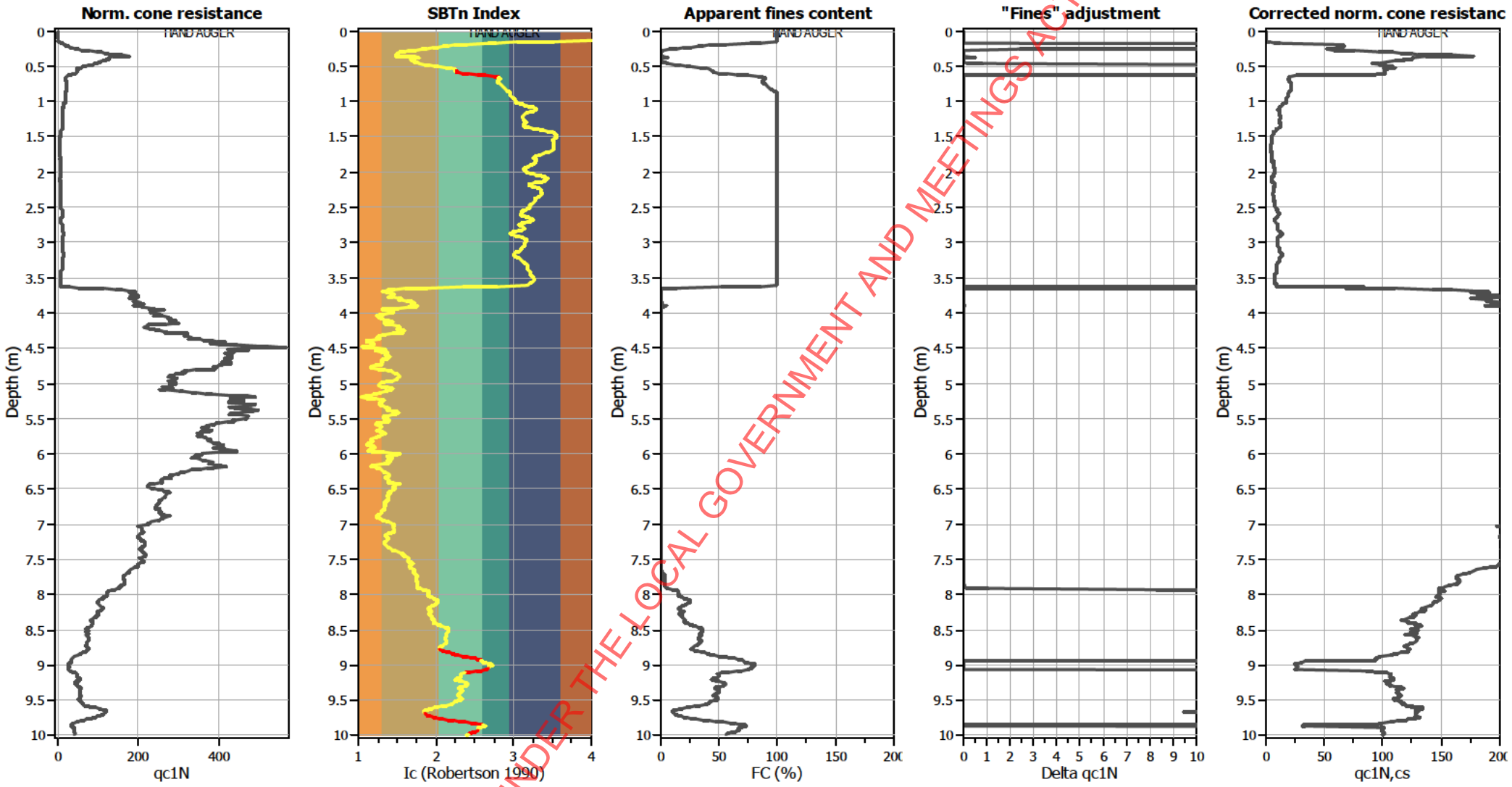
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
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Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

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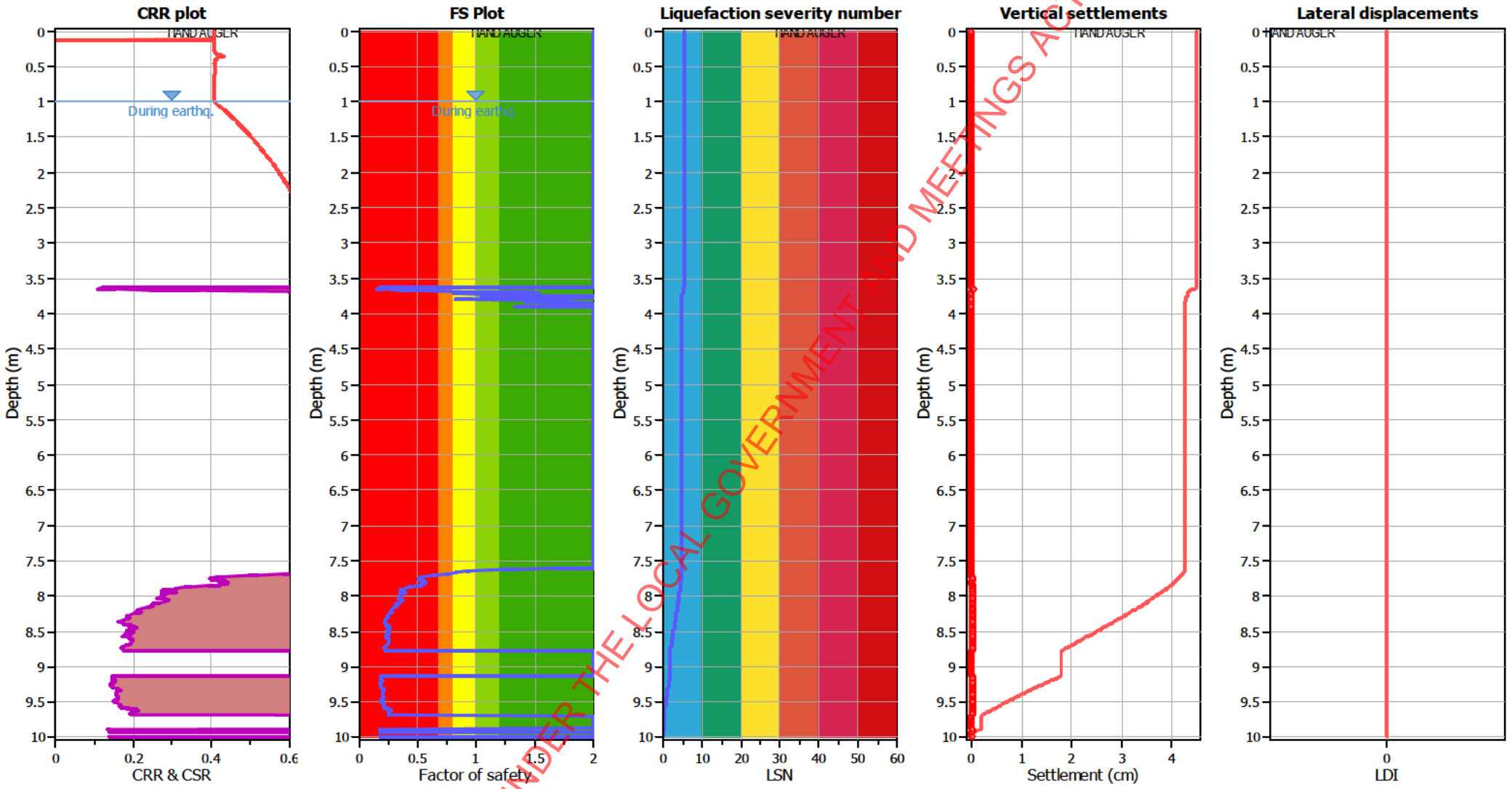
Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.00 m	Fill weight:	N/A
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Earthquake magnitude M_w:	7.70	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.68	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LSN color scheme

- Severe damage
- Major expression of liquefaction
- Moderate to severe exp. of liquefaction
- Moderate expression of liquefaction
- Minor expression of liquefaction
- Little to no expression of liquefaction

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GeoLogismiki
Geotechnical Engineers
Merarhias 56
http://www.geologismiki.gr

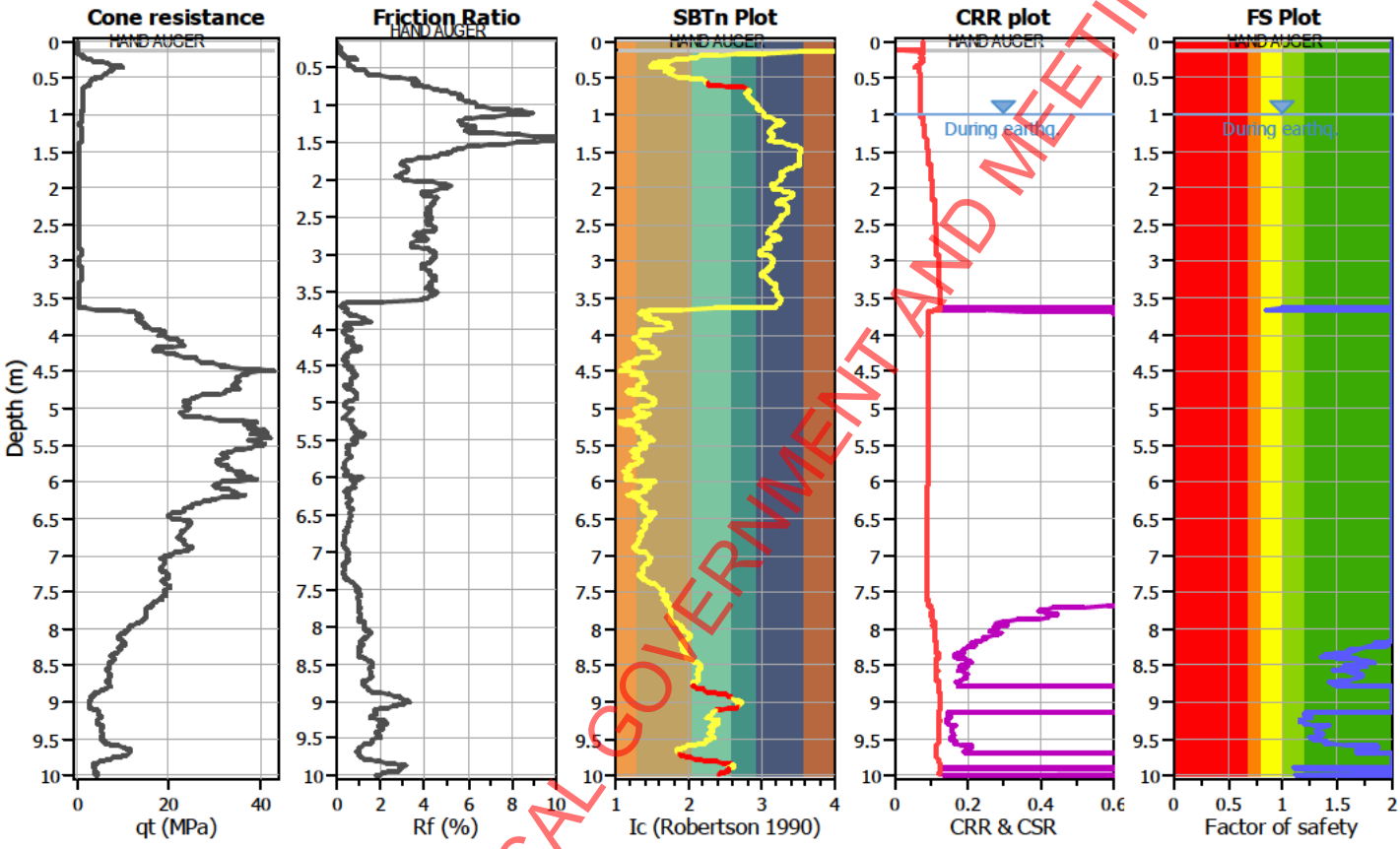
LIQUEFACTION ANALYSIS REPORT

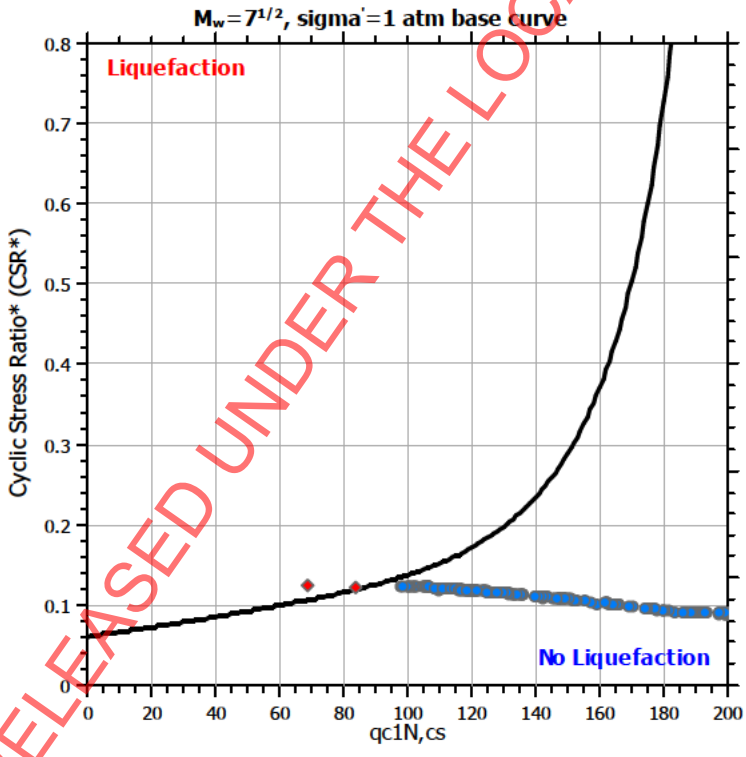
Project title : Liquefaction Analysis **Location : 85 Ludlam Crescent, Lower Hutt**

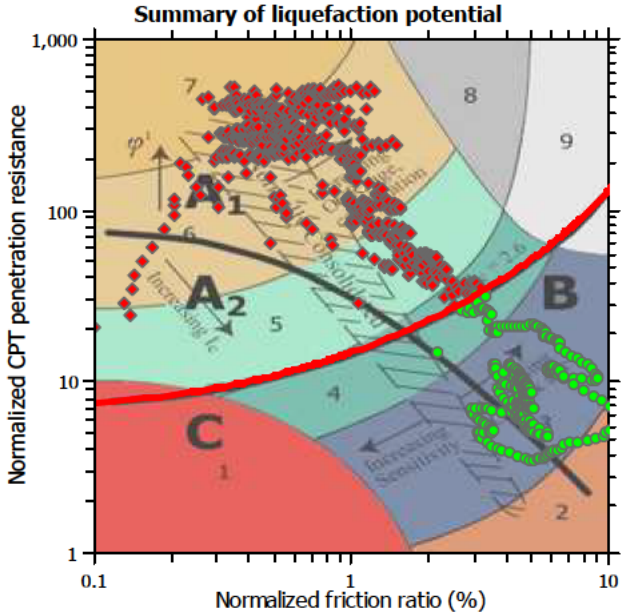
CPT file : CPT01_SLS

Input parameters and analysis data

Analysis method:	B&I (2014)	G.W.T. (in-situ):	1.30 m	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	B&I (2014)	G.W.T. (earthq.):	1.00 m	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.50	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method
Peak ground acceleration:	0.13	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		







Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
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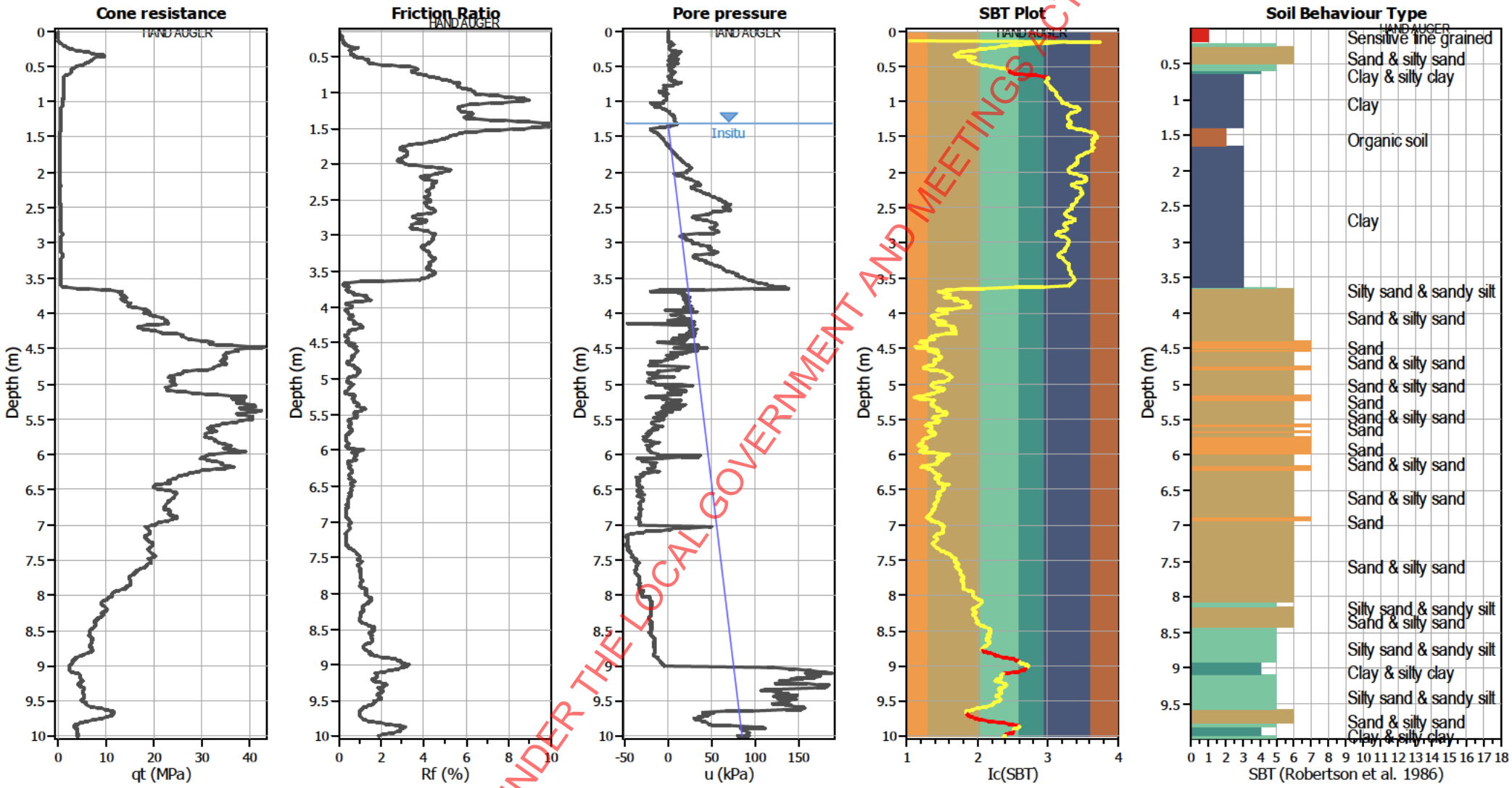
CPT basic interpretation plots



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Input parameters and analysis data

Analysis method:	B&I (2014)	Depth to GWT (erthq.):	1.00 m	Fill weight:	N/A
Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.50	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.13	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	1.30 m	Fill height:	N/A	Limit depth:	N/A

SBT legend

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7. Gravely sand to sand
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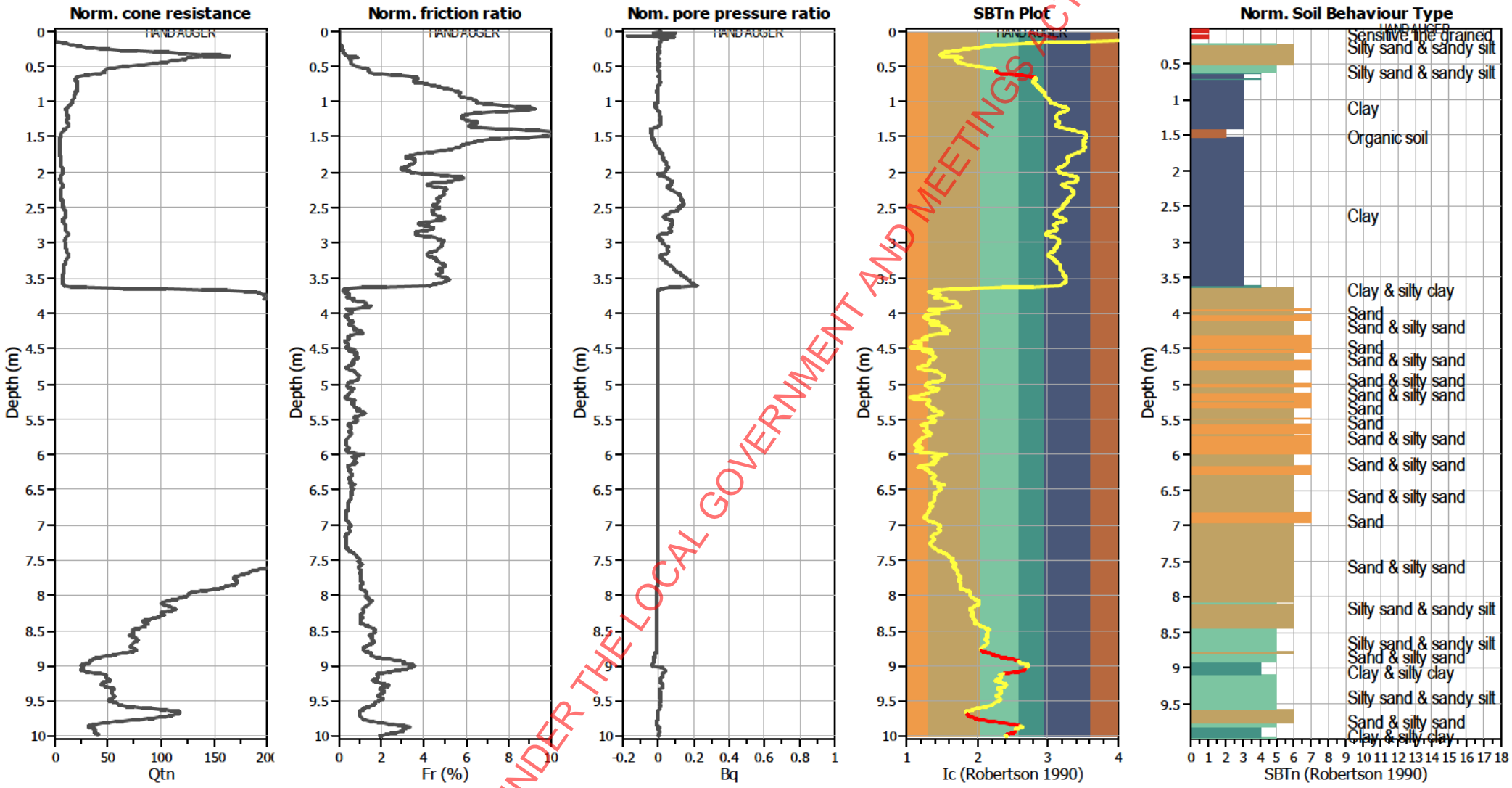
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

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Fines correction method:	B&I (2014)	Average results interval:	3	Transition detect. applied:	Yes
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Earthquake magnitude M_w:	6.50	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
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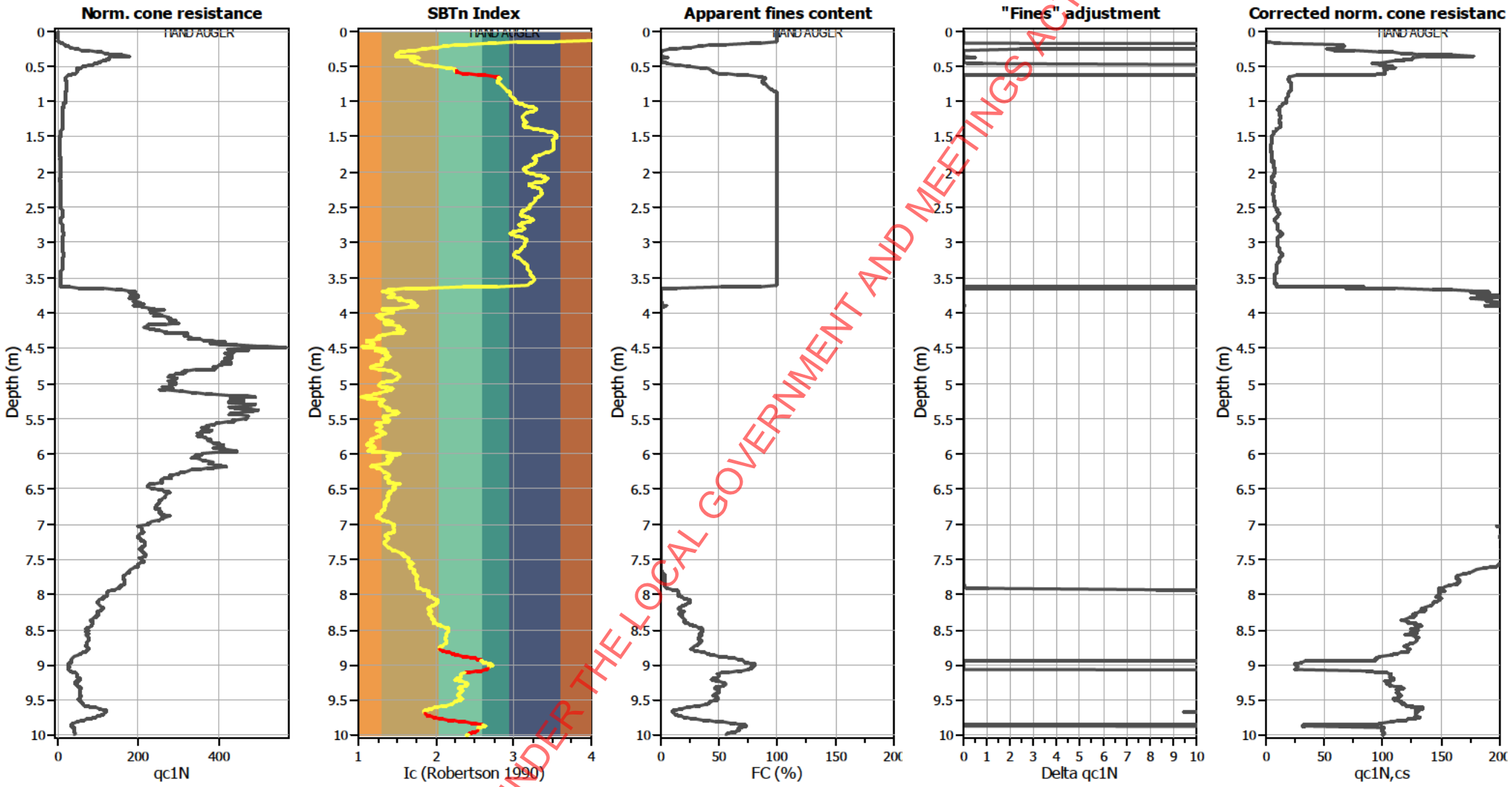
Liquefaction analysis overall plots (intermediate results)



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Peak ground acceleration:	0.13	Use fill:	No	Limit depth applied:	No
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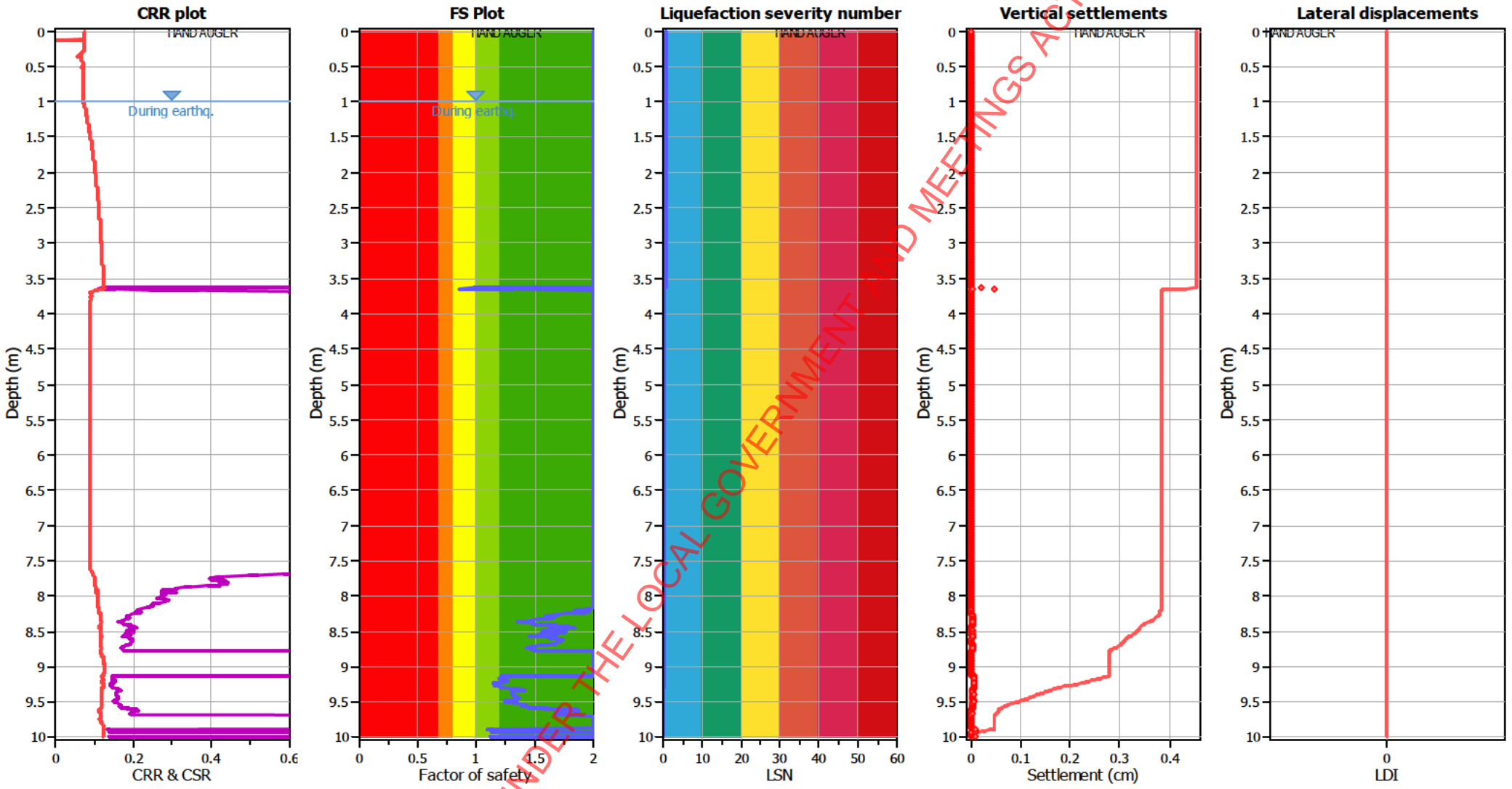
Liquefaction analysis overall plots



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Input parameters and analysis data

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Peak ground acceleration:	0.13	Use fill:	No	Limit depth applied:	No
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F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
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LSN color scheme

- Severe damage
- Major expression of liquefaction
- Moderate to severe exp. of liquefaction
- Moderate expression of liquefaction
- Minor expression of liquefaction
- Little to no expression of liquefaction

Appendix 4: Conceptual Plans

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Site Coverage		
		Area
New		
	Block A	152.09
	Block B	184.68
	Block C	150.99
		487.76 m²



1 Site Plan
1:200

GRAPHIC SCALE 1:200[m]
0 2 4 6 8 10

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INTERIM COPY
as at
25/02/20
This document contains amendments subsequent to the last revision. Further amendments will be made in the next issue of document. Not for Construction

Contractor to check dimensions on site prior to fabrication & construction.

Project:	Client:	Contents:
85 Ludlam Crescent Woburn, Lower Hutt	William Edmonds	Site Plan

ID	REV	Description	Date

MOORE DESIGN

Design:	CM	A3 Scale:1:200		SHEET No.	REV No.
Drawn:	CP	Date:	25/02/2025	**CD03**	
Checked:	GC	Job No:	J1222		

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Plan set uses colour representation.

p: 04 5665002 e: cam@mooredesign.nz w: www.mooredesign.nz

10:36 am 25/02/2025 BIMcloud: mooredesign - BIMcloud Software as a Service/Tauranga Office/J1222 - 85 Ludlam Crescent, Woburn/Drawing Documents/Concept Design/J1222 - 85 Ludlam Crescent - CD - 24.02.2025