Wollongong Local Planning Panel Assessment Report | 23 February 2023

WLPP No.	Item No. 2
DA No.	DA-2021/1376
Proposal	Residential – tree removal, demolition of existing dwelling and construction of a new dwelling and additions to existing detached garage
Property	595 Cordeaux Road, KEMBLA HEIGHTS NSW 2526
Applicant	Mrs Kathleen Nicholls
Responsible Team	Development Assessment & Certification – City Wide Planning Team (RT)

ASSESSMENT REPORT AND RECOMMENDATION

Executive Summary

Reason for consideration by Wollongong Local Planning Panel (WLPP)

The proposal has been referred to the WLPP for **determination** pursuant to part 1(e) of Schedule 2 of the Local Planning Panels Direction, as the land owner is a relative of a member of Council staff who is principally involved in the exercise of Council's functions under the Environmental Planning and Assessment Act 1979.

Proposal

The proposal seeks consent for the following:

- Demolition of an existing dwelling;
- Tree removal;
- Construction of a new dwelling; and
- Extension to existing detached garage.

Permissibility

The subject Local heritage listed site (5942) is zoned C4 Environmental Living and is also within a mapped Heritage Conservation Area (Kembla Heights) and the Illawarra Escarpment pursuant to Wollongong Local Environmental Plan (WLEP) 2009. Dwelling houses and ancillary residential structures are permissible with consent in the C4 zone. Demolition and tree removal are ancillary works to facilitate the proposal and as such are also permissible with consent.

Consultation

Details of the proposal were publicly exhibited in accordance with Council's adopted Community Participation Plan 2019. Nine (9) submissions were received. The issues identified are discussed at section 1.5 of this report.

Internal

The proposal has been referred to Council's Geotechnical, Development Engineering, Landscape, Environment and Heritage Officers for assessment.

Satisfactory referral advice, comments and/or recommended conditions were provided by Council's Geotechnical, Development Engineering and Landscape Officers only.

External

Details of the application were referred to Heritage NSW for comment. Advice received was that no heritage comment is required as the project area does not adjoin, (nor is it in the vicinity of) a site listed on the State Heritage Register (SHR), subject to an Interim Heritage Order, or a SHR nomination.

Likely impacts

Due to the number of variations to development control plans and heritage advice issues identified within the report, it is considered the proposal will result in adverse environmental impacts on the natural and built environments. Insufficient information has been provided to demonstrate that the amenity of the subject site and the surrounding locality will not be adversely impacted.

Therefore, the development as proposed is considered inappropriate for the site.

Main Issues

The main issues arising from the development assessment process are:-

- Heritage impacts on the Kembla Heights Heritage Conservation Area, the Illawarra Escarpment Heritage Conservation Area, the Heritage listing for the Mount Kembla Mine Workers Clubrooms located on the site, and on the adjacent Windy Gully Cemetery
- Impacts on the Illawarra Escarpment Area;
- Adverse dwelling design response to the natural landform and topography of the site; and
- Built form and character

Matters raised in relation to components of the proposal during the assessment of this application remain outstanding as outlined within the report.

Additional information was requested in correspondence to the applicant dated 7 April 2022, to which the applicant responded, however further information remains outstanding. Determination has been made on the basis of information submitted to date.

RECOMMENDATION

DA-2021/1376 be refused for the reasons identified at **Attachment 4**.

1.0 APPLICATION OVERVIEW

1.1 PLANNING CONTROLS

The following planning controls apply to the proposal:

State Environmental Planning Policies:

- SEPP (Resilience and Hazards) 2021
- SEPP (Biodiversity & Conservation) 2021
- SEPP (Building Sustainability Index: BASIX) 2004

Local Environmental Planning Policies:

Wollongong Local Environmental Plan (WLEP) 2009

Development Control Plans:

Wollongong Development Control Plan (WDCP) 2009

Other policies

- Wollongong City Wide Development Contributions Plan 2021
- Wollongong Community Participation Plan 2019
- Planning for Bush fire Protection 2019

1.2 DETAILED DESCRIPTION OF PROPOSAL

The application proposes the following:

- Demolition of an existing dwelling;
- Removal of two (2) trees;
- Construction of a new two (2) storey dwelling; and
- Extension to an existing detached garage.

1.3 BACKGROUND

The development history of the site is as follows:

Application Number	Description (Application)	Decision	Determined
BC-2015/41	Building certificate in relation to front verandah, new balustrade and skillion roof, existing timber frame addition with concrete slab on ground, new wall and roof framing - illegal works	REFUSED	27-Feb-17
BC-2017/89	Rear addition only	APPROVED	20-Sep-17
NO-2017/66	Council has become aware that the a sandstone fence with pillars and metal framed gate has been erected at the premises without development consent. Refer to Photo No. 1 marked as Attachment 'A' (Copy Attached)	PINISS	19-Jun-17
	A Notice of Intention to issue an Order N		

NO-2017/205	Council has become aware that unauthorised demolition and construction work has been undertaken to a building referred to as 'The Green Cottage' within the premises without development consent.		
	A Development Application No. DA-2015/607 for' residential -		
NO-2017/284	Council has become aware that the a sandstone fence with pillars and metal framed gate has been erected at the premises without development consent. Refer to Photo No. 1 marked as Attachment 'A' (Copy Attached)	COMPLIED	26-Mar-18
	An Order No. 2, dated 23 March 2017, was		
NO-2014/362	Council has become aware that unauthorised works including demolition, construction and an on-site sewerage system has been installed in an area of Local Heritage significance without prior development consent.	COMPLIED	14-Jul-14
NO-2015/190	Council has become aware that unauthorised demolition and construction work has been undertaken without development consent.	COMPLIED	27-Mar-18
BA-1985/1405	Dwelling	APPROVED	28-Nov-85
BA-1977/977	Dwelling	APPROVED	07-Nov-77
CC-2015/80	Residential - alterations and additions to existing dwelling new sandstone walls and gates	REFUSED	27-Feb-17
CC-2017/92	Residential - alterations and additions to existing dwelling	APPROVED	24-Nov-17
PC-2018/1347	Residential - front fence and gate	APPROVED	03-Sep-18
DA-2018/718	Residential - front fence and gate	APPROVED	11-Jul-18
DA-2022/1245	Subdivision of land to create three (3) Community title lots and conversion of miner's cottage to artist's studio (change of use with associated alterations and additions)		
DA-2016/1141	Change of use of cottage to Museum, use of main front entry gates, use of property to conduct ghost tours including interpretive walkway and gate, car and bus parking facilities	WITHDRAWN	07-Dec-16
DA-2015/607	Residential - alterations and additions to existing dwelling	APPROVED	23-Dec-15
DA-2017/927	Use of existing feature entry gate and sandstone walls	REFUSED	14-Sep-17
DA-1982/419	Museum, Gallery, Tea Room	APPROVED	04-Aug-82
DA-1985/554	Dwelling	APPROVED	06-Nov-85

DA-2003/311	Demolition Of Existing Dwelling	REFUSED	23-Aug-04
PL-2014/62	Alterations and additions to weatherboard cottage at Mount Kembla	COMPLETED	20-Aug-14
PL-2019/139	Alterations and additions to Miners Cottage and conversion for a personal artists studio	COMPLETED	13-Nov-19
TMO-2017/325	Remove 2 trees	APPROVED	11-Apr-17
OS-2015/4	AWTS & Spray Irrigation	APPROVED	29-Sep-20
WA-2018/1063	NICHOLLS	APPROVED	20-Dec-18

Application History

The subject development application, DA-2021/1376, was lodged on 24 November 2021 and notified from 3 December – 20 December 2021. The applicant was provided with requests for additional information letters on 6 and 7 April 2022. The letter of 6 April 2022 highlighted Development Assessment Planning, Stormwater and Environment matters to be addressed in order to progress the assessment of the application. The letter of 7 April 2022 highlighted Heritage matters to be addressed in order to progress the assessment of the application.

The applicant's Heritage Consultant provided massing studies to Council on 21 June 2022 which were reviewed and resulted in a further request for additional information on 9 August 2022. The applicant was sent a further request for the additional information previously requested on 24 October 2022.

The applicant provided additional Heritage information on 8 November 2022. Additional Planning, Environment and Stormwater information was provided by the applicant on 28 November 2022.

Following receipt of referral responses to the additional information submitted by the applicant on 8 and 28 November 2022 from Council's Heritage, Environment and Stormwater Officers the applicant was sent a request to withdraw the application on 17 January 2023. The letter of 17 January 2023 highlighted outstanding heritage and environmental matters that would need to be addressed in any future application. The applicant responded indicating that the request to withdraw was unreasonable as it will leave the client no option to Appeal the decision in Court should they wish.

Customer service actions:

There are no current outstanding customer service requests.

1.4 SITE DESCRIPTION

The site is located at 595 Cordeaux Road, KEMBLA HEIGHTS and the title reference is Lot 1 DP 551243.



Figure 1: Aerial photograph (2022)

Situated on the land area two single storey dwellings, four miners cottages, clubroom and a detached garage. The site itself is listed as a local heritage item, WLEP 2009 Heritage Item 5942, and is located within the WLEP 2009 Kembla Heights Heritage Conservation Area. Vehicular access to the site is gained via a driveway off Cordeaux Road. Noted with the development history and current site arrangements are two dwellings, one is considered the principal dwelling and the other a secondary dwelling both of which are permissible in the C4 Environmental living zone. It is interpreted that the current proposal relates to demolition and reconstruction of a principal dwelling. No works are proposed on what is interpreted as the secondary dwelling.

The land is an irregular shaped allotment with an overall site area of approximately 2.33ha (23313.4m²). The site slopes East to West to the front of the block facing Cordeaux Road.

The street scene in the immediate vicinity is predominantly characterised by rural/residential development of single dwellings situated on large parcels of land. Adjoining development consists of rural residential development to the South west to the North and North east is Dendrobium Colliery land and to the rear, South east, Endeavour Coal land. The Windy Gully Cemetery, WLEP 2009 Local Heritage item 5941, is located on Dendrobium Colliery land and adjoins the Northern boundary of the site.



Figure 2: WLEP2009 Heritage Mapping – Heritage Conservation Area(red hatch) and listed sites

Property constraints

- Unstable land and Bushfire Prone
- Flooding Uncategorised Flood Risk Precinct
- Illawarra Escarpment Area;
- Natural Resource Sensitivity Biodiversity;
- Kembla Heights Heritage Conservation Area
- WLEP 2009 Heritage Item (Site) 5942

There are no restrictions on the title.

1.5 SUBMISSIONS

The application exhibited in accordance with Council's adopted Community Participation Plan 2019. Nine (9) submissions were received. The main issues identified within the submissions are discussed below.

Table 1: Submissions

	Concern Comment			
Concern				
1.	Character of the area and Heritage impacts	Chapter D1 of WDCP2009 indicates the desired future character is for development to retain the existing character and preserve the buffer greenbelt.		
		The development as proposed, is not considered to have been designed appropriately given the constraints and characteristics of the site when the objectives of the C4 Environmental living zone and matters for consideration regarding earthworks and development in the Illawarra Escarpment area as detailed under WLEP2009 along with the number of WDCP2009 variations sought are taken into account.		
		The proposal is not considered consistent with the character of the Kembla Heights Heritage Conservation precinct. Significant issues have been raised by Council's Heritage Officer in relation to the built form of the proposed dwelling and it's impact on the heritage significance of the Kembla Heights precinct as relates to bulk and scale, colour and materials selection and visual.		
2.	Environmental Impacts	There are issues with the development design response as relates to the extent of cut, landform modification and size of retaining walls required is taken into consideration which are considered excessive.		
		Insufficient information has been to determine whether the dwelling has been located so as to minimise any adverse impact on the on the natural features and environment of the Illawarra Escarpment; and		
		Insufficient information has been submitted with actual conservation and rehabilitation measures to enhance the Illawarra Escarpment.		
3.	Notification of the application	The application was notified in accordance with Council's Community Participation Plan.		
4.	Swimming Pool	Original submitted plans and Statement of Environment Effects do not appear to indicate a swimming pool was proposed with the application. It is noted that following submission of amended plans a swimming pool has been detailed on the Cover Sheet however it does not appear on other Site or Floor Plans nor is a pool mentioned in the amended Statement of Environmental Effects, therefore a swimming pool was		

Cor	ncern	Comment	
·		not considered as part of this application and will have to be subject to a separate development application.	
5.	Onsite Waste Water Management	The application submission including the proposed onsite waste water management system has been reviewed by Council's Environment Officer and considered conditionally satisfactory.	
6.	Tree removal	The application submission, including an arborist report was referred to Council's Landscape Officer in respect to tree preservation and management and is considered conditionally satisfactory.	

Table 2: Number of concerns raised in submissions

Concern	1	2	3	4	5	6
Frequency	9	4	3	1	1	1

1.6 CONSULTATION

1.6.1 INTERNAL CONSULTATION

Geotechnical Officer

Council's Geotechnical, Development Engineering and Landscape officers have assessed the application submission and provided conditionally satisfactory advice.

Heritage Officer

Council's Heritage Officer has assessed the application submission and provided unsatisfactory referral advice noting the following:

- The perceived bulk and scale creates negative visual impacts on the locally heritage listed site and heritage conservation area;
- Insufficient visual impact analysis information has been submitted to demonstrate that the
 visual impact of the development on the locally heritage listed items and heritage
 conservation area will not be adverse; and
- The colour scheme fails to consider the recommendations of the Heritage Impact Statement (HIS) and Visual Impact Analysis (VIA) and the surrounding rural/bushland character of the area.
- Insufficient information has been provided as regards to the conservation works as per Appendix A of the Heritage Impact Statement.

In response to the applicant's most recent submission the following comments were noted.

The applicant has now provided:

- Updated Heritage Impact statement (Version 2) dated November 2022 prepared by Colin Brady
- Aboriginal Due Diligence Assessment prepared by Cultural Resources Management dated June 2022
- Updated site plans/elevations
- Cover letter dated 28 November 2022

The Aboriginal Due Diligence recommends unexpected finds conditions to be included on any future consent. The conclusions are generally supported. This matter is considered resolved.

Historic Archaeology

The proponent has submitted an Historic Archaeological Report prepared by CRM and dated June 2022. The report concludes that no further archaeological assessment or permits are required. This conclusion is based around a conclusion that no evidence exists for occupation of the development site prior to the construction of "Harryville" in Ca.1906 and an assumption based on the evidence discussed that no buildings or other uses existed within the development footprint until around 1907.

The report provided does not appear to provide a thorough consideration of the history of the property, nor its past ownership and subdivision. A review of TROVE, DP records, Parish maps and limited other resources by Council's Heritage Staff has indicated that the development site was, according to the 1892 parish map, at that time in the ownership of Thomas Moran Senior. It is noted that Thomas Moran Snr and his son (also Thomas Moran) appear to have been notable identities in Kembla Heights/Cordeaux and they appear to have been established in the area by the late 1870's.

No research appears to have been undertaken to consider the potential that the Moran's had established buildings on the property prior to Harry Graham's interests in the property (1896). Further, the report fails to acknowledge that the Workman's Club is located on the same parcel of land. Thomas Moran Junior is credited as having established a dance hall "Moran's Hall" on his father's property by 1893 and this building is believed to have become the Kembla Workman's Club in 1896. The report appears to assume that the 3 houses constructed by Graham in Ca. 1907 included the dwelling on the footprint of the presently proposed house, however no consideration appears to have been given to alternative explanations. It appears more likely that the three cottages constructed at this time may have included the third similar cottage located west of the location of "Harryville". It is also of note that Graham's Bakery and staff housing to the west of the site appear to have been burnt down in late 1896, and this may explain the reason why additional houses were constructed on the property.

It appears quite feasible that there was an established dwelling on the property which would have been occupied by the Moran's prior to Graham's interest in the property, and prior to the construction of "Harryville". If this is the case then it is possible that the building which was located on the footprint of the proposed dwelling prior to the existing house built in the 1980's, may have actually been the earlier/earliest residence on the property.

It is considered that in order to draw proper conclusions about the history of the site and the potential for intact archaeology to exist within the development footprint, that further research into the history of ownership and development of the property will be required.

Based on the evidence available and gathered by Council's Heritage staff it appears feasible that aspects of the site's history may have been missed or misinterpreted. Council's Heritage staff have compiled a range of material that can be shared to assist with this task.

Bulk and Massing of Proposed Dwelling

The elevations provided do not appear consistent with the massing studies and comments provided by Council on 9 August 2022. The proposed changes have increased the ridge height of the built form, this unnecessary height does not appear to serve any purpose and is not supported. It is not clear how this change has responded to the massing study and comments provided.

The breaking down of forms on southeast elevation and change to gabled roof form on the northeast elevation to respond to the form and scale of other miner's cottages on the site is acknowledged, however these minor improvements are overshadowed by the negative visual impacts of raising the main roof form. The proposal also creates visual clutter due to the 3 levels of different height roof forms on both ends of the proposed dwelling.

The dwelling footprint appears to be largely the same and the the built form has not been adequately broken down to reduce the perceived bulk and scale.

The amended proposal is not considered an adequate response to the previous file note, or to the massing study and is not supported.

See below comments on massing plans:

- The proposal in the massing study has clearly shown an attempt break down the massing of the dwelling in pavilions, and would reduce impact in comparison to the previous proposal, which is supported however Council would need to understand how the proposal will be viewed from key view point such as Cordeaux Road and Windy Gully Cemetery. The most visible elevations (west and south) appear bulky and require additional work to break down and simplify the built form
- No comparison between GFA of amended design has been provided, so it is unclear whether the built form has been consolidated into a smaller building footprint which would be preferred
- A hipped roof form is preferred to reduce the perceived bulk of any second storey element
- The western elevation has a number of roof forms and storeys highly visible creating a visually cluttered approach from the driveway the eastern elevation is the preferred approach. The western elevation should be amended western elevation to be simpler and more low scale in design.
- The colours and materials should be carefully considered, corrugated iron FC cladding and a mix of other sympathetic materials to the heritage item (without imitating the cottages) with muted bushland tones should be utilised to ensure the building is visually recessive against the Escarpment backdrop.

Visual Impact Assessment

Under Part 5.1(2) of Chapter B6: Development in any precinct of the escarpment will require an appropriate visual impact assessment to be undertaken early in the design phase. A Visual impact Assessment report has now been provided in the HIS as previously requested in Part 9. However no montages are provided, only arrows showing location. This is not considered an adequate assessment.

This report should consider viewing locations along Harry Graham Drive, and give consideration to the potential impacts of the proposal on heritage features both within and surrounding the site, as well as considering the impacts of the proposal on the setting of these features within the backdrop of the Illawarra Escarpment Heritage Conservation Area.

The VIA also fails to consider the potential visual impact of the proposal on the area at night, when lit up as requested.

Schedule of Colours

The schedule of colours and materials appears to be largely the same as the original proposal with the exception of FC cladding which is supported. Part 10 of the HIS provides the following recommendation:

The works are proposed in light and dark external colours. It is essential that these colours harmonise with the weathered patina of earlier structures including rusting corrugate metal cladding and fading

limewashed brickwork to former miners' cottages, the variegated leaves and bark of established trees to the southern rise of the site, and the deep green of screen planting to the north above Windy Gully Cemetery. Selection of colour finishes is highly subject to light patterns in any location. A number of the selected colours are therefore recommended to be amended in response to the qualities of light at the site. In particular 'Vivid White' should not be used in this setting and should be replaced by Chalk White or similar 'Off White' close to the subdued intensity of natural colours of the site. Further, the selected grey roof needs to be assessed against samples of other colours [grey- greens] provided on site prior to a final selection.

Whilst the recommendations are generally supported the updated Schedule of colours has been provided still utilised vivid white for the trims, which is directly contrary to the HIS recommendations. Basalt grey and Spanish olive - a classic Hamptons Style occur scheme is not supported. An updated scheme that considers the HIS recommendations and VIA and the surrounding rural/bushland character of the area is required. The colour of the driveway should also be detailed (bright white concrete is not appropriate, although the broom finish is supported).

Conservation Works

Appendix A of the Heritage Impact Statement provides a table of a range of conservation works proposed to a range of structures on the site as part of future Community title subdivision application or as part of the current DA. It is noted future works proposed as part of other applications cannot be considered as part of the assessment of the current DA.

However Appendix A includes works to various buildings presumably as part of the current application, although it is not specified.

Additional detail on the proposed stabilisation and restoration works including a full schedule of conservation works will be required.

Environment Officer

Council's Environment Officer has assessed the application submission and provided unsatisfactory referral advice noting the following issues:

- The proposed developments response to the site, natural landform and topography, when the extent of cut, landform modification, required is taken into consideration.
- Insufficient information is considered to have been submitted with the application to determine whether the proposed dwelling will be located so as to minimise any adverse impact on the natural features and environment of the Illawarra Escarpment.
- Insufficient information has been submitted with regard to actual conservation and rehabilitation measures to enhance the Illawarra Escarpment

1.6.2 EXTERNAL CONSULTATION

Heritage NSW

Details of the application were referred to Heritage NSW for comment. Advice received was that no heritage comment is required as the project area does not adjoin, (nor is it in the vicinity of) a site listed on the State Heritage Register (SHR), subject to an Interim Heritage Order, or a SHR nomination.

1.7 Application of Part 7 of Biodiversity Conservation Act 2016 and Part 7A of Fisheries Management Act 1994

This Act has effect subject to the provisions of Part 7 of the Biodiversity Conservation Act 2016 and Part 7A of the Fisheries Management Act 1994 that relate to the operation of this Act in connection with the terrestrial and aquatic environment.

NSW BIODIVERSITY CONSERVATION ACT 2016

Section 1.7 of the Environmental Planning and Assessment Act 1979 (EP&A Act) provides that Act has effect subject to the provisions of Part 7 of the Biodiversity Conservation Act 2016 (BC Act).

Part 7 of the BC Act relates to Biodiversity assessment and approvals under the EP&A Act where it contains additional requirements with respect to assessments, consents and approvals under this Act.

Clause 7.2 of the Biodiversity Conservation Regulation 2017 provides the minimum lot size and area threshold criteria for when the clearing of native vegetation triggers entry of a proposed development into the NSW Biodiversity offsets scheme. For the subject site, entry into the offset scheme would be triggered by clearing of an area greater than 0.5 hectares based upon the minimum lot size of the WLEP 2009 C4 zoned land being 39.99ha.

An approximate area of 0.0114 hectares of vegetation is proposed to be cleared for the development. The minimum subdivision lot size for the land under WLEP 2009 is 39.99ha. Therefore the proposal does not trigger the requirement for a biodiversity offset scheme.

The site is not identified as being of high biodiversity value on the Biodiversity Values Map.

None of the trees on the site were identified as containing hollows.

The development would therefore not be considered to result in adverse impacts on biodiversity and is consistent with the provisions of the Biodiversity Conservation Act 2016.

2.1 SECTION 4.15(1)(A)(1) ANY ENVIRONMENTAL PLANNING INSTRUMENT

2.1.1 STATE ENVIRONMENTAL PLANNING POLICY (RESILIENCE AND HAZARDS) 2021

4.6 Contamination and remediation to be considered in determining development application

- (1) A consent authority must not consent to the carrying out of any development on land unless:
 - (a) it has considered whether the land is contaminated, and
 - (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
 - (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

A desktop audit of previous land uses does not indicate any historic use that would contribute to the contamination of the site. Council's Environmental Officer has reviewed the history of the site in conjunction with details of the application submission. Satisfactory referral advice was received indicating no concerns are raised in regard to contamination as relates to the intended use of the land and the requirements of clause 4.6.

The site is therefore considered suitable for the proposed development and consistent with the assessment considerations of SEPP (Resilience and Hazards) 2021 such that a determining authority can be satisfied.

2.1.2 STATE ENVIRONMENTAL PLANNING POLICY (BUILDING SUSTAINABILITY INDEX: BASIX) 2004

The proposal is BASIX affected development to which this policy applies. In accordance with Schedule 1, Part 1, 2A of the Environmental Planning and Assessment Regulation 2000, a BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.

2.1.3 STATE ENVIRONMENTAL PLANNING POLICY (BIODIVERSITY AND CONSERVATION) 2021

Chapter 4 Koala Habitat Protection 2021

The subject lot has an area of more than one hectare. No approved koala plan of management applies to the lot.

Details of the application submission were referred to Council's Environment Officer for comment. Advice received is that the lot would contain species of trees belonging to the koala use tree species listed under South Coast Koala Management Area in Schedule 3 of SEPP (Biodiversity and Conservation) 2021. These are not proposed to be cleared.

In Bionet, two records for the koala from within the last five years occur with an accuracy of 50 metres within about 2.3 kilometres from the subject lot. Another record from 8 November 2017 with the word collision in the sighting notes, suburb only provided: Cordeaux Heights in the description and an accuracy of 1033 metres occurs about 2.5 kilometres from the site. These records do not provide evidence the site is suitable koala habitat.

The proposed development would have no impact on koalas or koala habitat.

2.1.4 WOLLONGONG LOCAL ENVIRONMENTAL PLAN 2009

Part 1 Preliminary

Clause 1.2 Aims of the Plan

Clause 1.2(2) of WLEP 2009 indicates that the aims of the plans are as follows:

- (aa) to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts,
- (a) to provide a framework for land use management,
- (b) to encourage economic and business development to increase employment opportunities,
- (c) to encourage a range of housing choices consistent with the capacity of the land,
- (d) to improve the quality of life and the social well-being and amenity of residents, business operators, workers and visitors,
- (e) to conserve and enhance remnant terrestrial, aquatic and riparian habitats, native vegetation and fauna species,
- (f) to conserve and enhance heritage,
- (g) to ensure that development is consistent with the constraints of the land and can be appropriately serviced by infrastructure,
- (h) to ensure that significant landscapes are conserved, including the Illawarra Escarpment, Lake Illawarra, the drinking water catchment and the coastline.

Comment:

With respect to aim 2(f) the proposal does not ensure that the development conserves and enhances heritage as demonstrated by:

• The perceived bulk and scale creates negative visual impacts on the locally heritage listed site and heritage conservation area;

- Insufficient visual impact analysis information has been submitted to demonstrate that the visual impact of the development on the locally heritage listed item and heritage conservation area will not be adverse; and
- The colour scheme fails to consider the recommendations of the Heritage Impact Statement (HIS) and Visual Impact Analysis (VIA) and the surrounding rural/bushland character of the area.

With respect to aims 2(g) and (h) the proposal does not ensure that the development is consistent with the constraints of the land and ensures that the Illawarra Escarpment landscapes are conserved, as demonstrated by:

- The dwelling is not considered to have been designed and sited to suit the natural landform and topography of the site when the proposed cut, landform modification and associated retaining walls are taken into consideration; and
- The application does not provide conservation and rehabilitation measures to be undertaken to enhance the existing native vegetation on the lot.

Clause 1.4 Definitions

Ancillary residential structures are defined as a non-habitable building ancillary to a dwelling house and includes a **garage**, carport, shed, cabana, pergola, deck, swimming pool, outside spa, Jacuzzi, hot tub, aviary, retaining wall, fence, shade sail, water tank etc.

Demolition: In relation to a building means wholly or partly destroy, dismantle or deface the building. **Dwelling house** means a building containing only one dwelling.

Note-

Dwelling houses are a type of *residential accommodation*—see the definition of that term in this Dictionary.

Part 2 Permitted or prohibited development

Clause 2.2 – zoning of land to which Plan applies

The zoning map identifies the land as being zoned *C4 Environmental Living*.

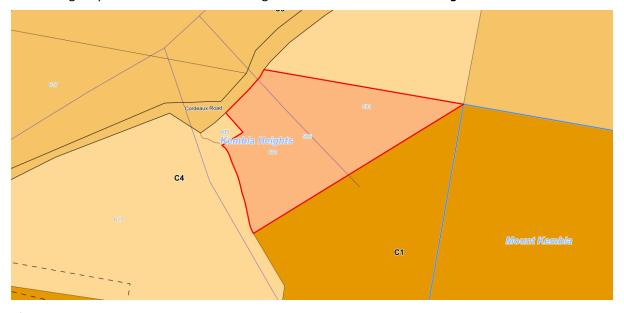


Figure 2: WLEP 2009 zoning map

Clause 2.3 – Zone objectives and land use table

The objectives of the zone C4 Environmental Living are as follows:

- To provide for low-impact residential development in areas with special ecological, scientific or aesthetic values.
- To ensure that residential development does not have an adverse effect on those values.

As a land use, a dwelling house and ancillary residential structure would be considered generally satisfactory with regard to the above objectives as it is a permissible use in the C4 Environmental Living zone with development consent. However the application submission fails to demonstrate that the development as proposed provides for low impact residential development in an area of aesthetic and heritage conservation value and the impact on the values are not adverse.

The land use table permits the following uses in the zone.

ZONE E4 Environmental Living permitted uses:

Bed and breakfast accommodation; Business identification signs; Community facilities; **Dwelling houses**; Earthworks, Environmental facilities; Environmental protection works; Recreation areas; Roads; Secondary dwellings

The proposal is categorised as a dwelling house and ancillary residential structure as described above and are permissible in the E4 zone with development consent. Demolition and tree removal are ancillary works to facilitate the proposal and as such are also permissible

Part 4 Principal development standards

Clause 4.3 Height of buildings

The proposed building height of 8.98m for the dwelling and 6.49m for the garage additions do not exceed the maximum of 9m permitted for the site.

Clause 4.4 Floor space ratio

Maximum FSR permitted for the site: 0.3:1

Resultant FSR provided: $1065.879 \text{m}^2/23313.4 \text{m}^2 = 0.0457:1$

The proposed floor space ratio does not exceed the maximum permissible for the site.

Part 5 Miscellaneous provisions

Clause 5.4 Controls relating to miscellaneous permissible uses

- (9) Secondary dwellings If development for the purposes of a secondary dwelling is permitted under this Plan, the total floor area of the dwelling (excluding any area used for parking) must not exceed whichever of the following is the greater:
- (a) 60 square metres,
- (b) 67% of the total floor area of the principal dwelling.

The application submission indicates the proposed principal dwelling has an area of approximately 490m² therefore the proposed secondary dwelling cannot exceed 328.6m² (67%).

The application submission indicates that the secondary dwelling has an approximate area of 265.8m² which is less than 67% of the total floor area of the principal dwelling and therefore the proposed considered to satisfy Clause 5.4(9) in this circumstance.

Clause 5.10 Heritage conservation

The subject site is listed as a local heritage item under the WLEP 2009 (WLEP 2009 Heritage Item 5942) adjoins Windy Gully Cemetery a local heritage item (WLEP 2009 Heritage Item 5941) and is located within a Heritage Conservation Area. Details of the application were referred to Council's Heritage Officer for comment with advice received the proposed development is considered unsatisfactory noting:

- The perceived bulk and scale creates negative visual impacts on the locally heritage listed site and heritage conservation area;
- Insufficient visual impact analysis information has been submitted to demonstrate that the visual impact of the development on the locally heritage listed items and heritage conservation area will not be adverse; and
- The colour scheme fails to consider the recommendations of the Heritage Impact Statement (HIS) and Visual Impact Analysis (VIA) and the surrounding rural/bushland character of the area.
- Insufficient information has been provided as regards to the conservation works as per Appendix A of the Heritage Impact Statement.

Clause 5.21 Flood planning

The subject land is identified as being flood hazard affected. Council's Development Engineering Officer has assessed the application submission in this regard and provided conditionally satisfactory advice.

Part 7 Local provisions - general

Clause 7.1 Public utility infrastructure

The proposal has been assessed against Clause 7.1 and it is considered that the subject site is already serviced by public utilities which can be augmented to service the new proposal.

<u>Clause 7.2 Natural resource sensitivity – biodiversity</u>

The site is identified as "Natural Resource Sensitivity – Biodiversity" which generally coincides with the Illawarra Escarpment Land. Details of the application submission including the Arborist report and Bushfire report were referred to Council's Environment and Landscape Officers for comment. Advice received was that the footprint of the dwelling and associated asset protection zone were outside of the area mapped as Natural Resource Sensitivity – Biodiversity and therefore there are no issues in this regard.



Figure 3: WLEP 2009 "Natural Resource Sensitivity – Biodiversity" map

Clause 7.4 Riparian lands

The Riparian Land Map indicates the site contains riparian land. However the submitted plans indicate that no physical works are proposed within the riparian corridor. The application submission was referred to Council's Environment Officer for comment. Advice received indicates there are no issues with the proposal.

Clause 7.6 Earthworks

Earthworks are proposed to facilitate the proposal The objectives of this clause are:

- (a) to ensure that any earthworks will not have a detrimental impact on environmental functions and processes, neighbouring uses or heritage items and features surrounding land,
- (b) to allow earth works of a minor nature without separate development consent.

Clause 7.6(3) states that before granting development consent for earthworks, the consent authority must consider the following matters;

- (a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality,
- (b) the effect of the proposed development on the likely future use or redevelopment of the land,
- (c) the quality of the fill or of the soil to be excavated, or both,
- (d) the effect of the proposed development on the existing and likely amenity of adjoining properties,
- (e) the source of any fill material or the destination of any excavated material,
- (f) the likelihood of disturbing Aboriginal objects or other relics,
- (g) proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.

Council's Environment Officer has assessed the application submission and provided unsatisfactory referral advice noting the following issues:

- The extent of cut, landform modification, required to facilitate the proposed development is not considered responsive to the site, natural landform and topography; and
- Insufficient information is considered to have been submitted to determine whether the proposed dwelling will be located so as to minimise any adverse impact on the natural features and environment of the Illawarra Escarpment.

The extent of cut, landform modification to the facilitate the proposal is not considered to be site responsive and insufficient information has been lodged to determine whether the proposed development has been located so as to minimise adverse impact on the natural features and environment of the Illawarra Escarpment land.

Clause 7.8 Illawarra Escarpment area conservation

The site is identified as being within the Illawarra Escarpment Area. The objective of this clause is to provide specific controls to protect, conserve and enhance the Escarpment.

Clause 7.8(3) states that development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that the development;

- (a) will be located so as to minimise any adverse impact on the natural features and environment of the Illawarra Escarpment, and
- (b) will incorporate on the land, conservation and rehabilitation measures to enhance the Illawarra Escarpment.

Details of the application submission including the Arborist report, Bushfire report and Engineering Plans were referred to Council's Environment Officer for comment. Advice received is that the proposal is considered unsatisfactory noting the following issues:

While a Visual Impact Analysis has been submitted, it has not provided any montages. There
is insufficient information to determine whether the proposed dwelling will be located so as
to minimise any adverse impact on the natural features and environment of the Illawarra
Escarpment.

- The applicant considers the proposed development will contribute to the protection, conservation and enhancement of the Illawarra Escarpment as the dwelling is for a replacement dwelling located in a similar position of the site as the dwelling to be demolished. The proposed dwelling is however, located mostly south of the existing dwelling, is much larger in scale and extent and involves landform modification. While screen planting is proposed, actual conservation and rehabilitation measures to enhance the Illawarra Escarpment for example, a commitment to weed management in the areas of native vegetation on the subject lot have not been proposed.
- It is considered the proposed development will not incorporate on the land conservation and rehabilitation measures to enhance the Illawarra Escarpment.

The extent of cut, landform modification to the facilitate the proposal is not considered to be site responsive and insufficient information has been provided with regard to actual conservation and rehabilitation measures to enhance the Escarpment.

2.2 SECTION 4.15(1)(A)(II) ANY PROPOSED INSTRUMENT

None applicable to the site or proposed development.

2.3 SECTION 4.15(1)(A)(III) ANY DEVELOPMENT CONTROL PLAN

2.3.1 WOLLONGONG DEVELOPMENT CONTROL PLAN 2009

The development has been assessed against the relevant Chapters of WDCP2009 and found to be unsatisfactory with regards to dwelling siting, earthworks, retaining wall heights, visual impact analysis, building character and form, external finishes and heritage conservation. The proposal seeks a variation to WDCP 2009 as relates to the retaining wall height development control. It is noted that no variation request has been submitted for the variation to the retaining wall height, dwelling siting, building form and construction, external finishes and heritage conservation development controls with the application submission.

With regard to the visual impact analysis it is noted that a Visual Impact Assessment (VIA) was provided upon Council's request however, it is not considered to provide an adequate assessment.

A full compliance table is provided at **Attachment 3** to this report.

2.3.2 WOLLONGONG CITY WIDE DEVELOPMENT CONTRIBUTIONS PLAN 2018

The estimated cost of works is >\$100,000 and a levy of 1% would therefore be applicable under this plan as the threshold value is \$100,000.

2.4 SECTION 4.15(1)(A)(IIIA) ANY PLANNING AGREEMENT THAT HAS BEEN ENTERED INTO UNDER SECTION 7.4, OR ANY DRAFT PLANNING AGREEMENT THAT A DEVELOPER HAS OFFERED TO ENTER INTO UNDER SECTION 7.4

There are no planning agreements entered into or any draft agreement offered to enter into under S7.4 which affect the development

2.5 SECTION 4.15(A)(IV) THE REGULATIONS (TO THE EXTENT THAT THEY PRESCRIBE MATTERS FOR THE PURPOSES OF THIS PARAGRAPH)

The subject application was lodged on the 24 November 2021 therefore in accordance with Section 2 of Environmental Planning and Assessment Regulation 2001 as follows the Environmental Planning and Assessment Regulation 2000 continues to have effect to this application.

2 Savings

Any act, matter or thing that, immediately before the repeal of the 2000 Regulation, had effect under the 2000 Regulation continues to have effect under this Regulation.

2000 Regulation means the Environmental Planning and Assessment Regulation 2000 as in force immediately before its repeal on 1 March 2022.

92 What additional matters must a consent authority take into consideration in determining a development application?

Condition(s) could be recommended with regard to any demolition.

93 Fire safety and other considerations

Not Applicable.

94 Consent authority may require buildings to be upgraded

Not Applicable.

2.6 SECTION 4.15(1)(B) THE LIKELY IMPACTS OF DEVELOPMENT

Context and Setting:

Dwelling houses and ancillary residential structures would normally be considered to be in context with the setting of the area as the area is characterised by residential development.

In regard to the matter of context, the planning principle in Project Venture Developments v Pittwater Council [2005] NSWLEC 191 is relevant in that it provides guidance in the assessment of compatibility. The two major aspects of compatibility are physical impact and visual impact. In assessing each of these the following questions should be asked:

- Are the proposals physical impacts on surrounding development acceptable? The physical impacts include constraints on the development potential of surrounding sites.
- Is the proposals appearance in harmony with the buildings around it and the character of the street?

In this circumstance, however, Development Control Plan non-compliances and heritage and environmental issues identified throughout the report indicate that the form of development as proposed is inappropriate for the subject site with regard context and setting.

Access, Transport and Traffic:

Access to the site will be via an approved driveway to Council's formed roadway which adjoins Council's Local Road. The development is considered not to result in an adverse impact on the traffic movement and access to the site. Council's Development Engineering Officer has no objections to the proposed access arrangements.

Public Domain:

The proposal is not considered to be conducive to the context and setting of the site and would set an undesirable precedent. The potential cumulative impact of similar development would likely have an adverse impact upon the public domain.

Utilities:

The proposal would not be envisaged to place an unreasonable demand on utilities supply. Existing utilities are adequate to service the proposal.

Heritage:

The subject site is listed as a local heritage item under the WLEP 2009 (WLEP 2009 Heritage Item 5942) adjoins Windy Gully Cemetery a local heritage item (WLEP 2009 Heritage Item 5941) and is located within a Heritage Conservation Area . Details of the application were referred to Council's Heritage Officer for comment. Advice received is that the proposed development is considered unsatisfactory.

Other land resources:

The proposal would not be envisaged to impact upon valuable land resources.

Water:

The site is presently serviced by Sydney Water, which could be readily extended to meet the requirements of the proposed development.

The proposal would not be envisaged to have unreasonable water consumption.

Soils:

The soil profile could be acceptable for the construction of the proposed development.

Air and Microclimate:

The proposal would not be expected to result in negative impact on air or microclimate.

Flora and Fauna:

Two (2) trees are proposed to be removed with this application. The proposal is not expected to adversely impact fauna. Council's Landscape and Environment Officers has reviewed the application submission including the submitted arborist report and landscape plan. Advice received is that the application is considered conditionally satisfactory with regard to tree removal.

Waste:

The proposal is not expected to generate significant waste. The proposed on-site wastewater management system is considered conditionally satisfactory

Energy:

The proposal would not be expected to have unreasonable energy consumption.

Noise and vibration:

Conditions could be imposed to minimise nuisance during any construction, demolition, or works.

Natural hazards:

There are no natural hazards affecting the site that would prevent the proposal.

Council records list the site as bushfire affected. The application has been assessed having regard to the provisions of Planning for Bushfire Protection (PBP) 2019. The applicant has submitted a bushfire hazard assessment report prepared by Harris Environmental Consulting a FPAA accredited bushfire consultant with the application which explains the likely impact of the proposal and how it is proposed to minimise these impacts. The bush fire report recommendations prepared by Harris Environmental Consulting are considered acceptable in this circumstance. Council is satisfied that the application is compliant with the aims and objectives of PBP 2019.

Council records also list the site as being flood affected. Council's Development Engineering Officer has assessed the application submission in this regard and has not raised any objections subject to conditions.

Technological hazards:

There are no technological hazards affecting the site that would prevent the proposal.

Council records list the site as being potentially unstable land. The application submission has been assessed by Council's Geotechnical Officer who considered the application conditionally satisfactory.

<u>Safety, Security and Crime Prevention:</u>

The proposal would not be envisaged to result in any greater opportunities for criminal or antisocial behaviour.

Social Impact:

The proposal may create negative social impacts. It is considered that insufficient information has been submitted for Council to be satisfied that impacts from the proposal on the amenity of the neighbourhood and the surrounding context will not be adverse.

Economic Impact:

The proposal would not be envisaged to result in negative economic impacts.

Site Design and Internal Design:

The application does not result in any departures from development standards. The application results in variations to Council's dwelling siting, earthworks, retaining wall heights, visual impact analysis, building character and form and construction, external finishes and heritage conservation development control plans as outlined in Section 2.3.1 Wollongong Development Control Plan 2009 of this report.

Cumulative Impacts:

Considering the matters outlined throughout this report, the proposal is considered likely to result in adverse cumulative impacts.

2.8 SECTION 4.15(1)(C) THE SUITABILITY OF THE SITE FOR DEVELOPMENT

Does the proposal fit in the locality?

The development as proposed is considered to set an undesirable precedent given the issues raised in this report. Therefore, proposal is not considered appropriate for the locality which is characterised as being within both the Kembla Heights Heritage Conservation Area and the Illawarra Escarpment..

Are the site attributes conducive to development?

Required heritage and environmental considerations are significant attribute drivers to acceptable development in the context of the site and locality. It is considered the application submission and design response are inadequate in this regard.

2.9 SECTION 4.15(1)(D) ANY SUBMISSIONS MADE IN ACCORDANCE WITH THIS ACT OR THE REGULATIONS

See section 1.5 of this report.

2.10 SECTION 4.15(1)(E) THE PUBLIC INTEREST

The application is considered likely to result in adverse impacts on the environment and the amenity of the locality given the heritage and escarpment landscape context and setting. The proposal is considered inappropriate being contrary to the relevant planning controls and in the current form, approval would not be in the public interest.

3 CONCLUSION

This application has been assessed having regard to the Heads of Consideration under Section 4.15 of the Environmental Planning and Assessment Act 1979.

It is considered that the applicant has also not provided adequate justification for the variations sought to WDCP 2009 as relates to dwelling siting, earthworks, retaining wall heights, visual impact analysis, building character and form and construction, external finishes and heritage conservation.

Council's Heritage and Environment Officers have provided unsatisfactory referral advice. Council's Geotechnical, Development Engineering and Landscape Officers have provided conditionally satisfactory referral advice.

Several matters including those identified within submissions remain unresolved.

It is considered the proposed development has not been designed appropriately given the constraints and characteristics of the site. The proposal is considered inappropriate being contrary to the relevant planning controls and in the current form, approval would not be considered to be in the public interest.

4 RECOMMENDATION

DA-2021/1376 be **Refused** for the reasons identified at **Attachment 4**.

5 ATTACHMENTS

- 1 Plans
- 2 Site Inspection Photos
- 3 Compliance table for Wollongong Development Control Plan 2009
- 4 Reasons for Refusal

Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road, Kembla Heights NSW 2526

Mrs. Nicholls



SITE DATA			
Name	m²		
SITE COVERAGE	504.06		
SITE AREA	23,428.16		
	SITE COVERAGE		

Development Data			
Zone	Name	m²	
01	GROUND FLOOR	381.22	
02	FIRST FLOOR	148.15	
03	PORCH	34.99	
04	ALFRESCO	91.67	
05	BALCONY	45.51	
06	GARAGE	41.67	
07	EXISTING GARAGE	38.88	
08	EXISTING AWNING	30.90	

812.99 m²

THESE NOTES MUST BE READ AND UNDERSTOOD BY ALL INVOLVED IN THE PROJECT.

THIS INCLUDES (but is not excluded to): OWNER, BUILDER, SUB-CONTRACTORS, CONSULTANTS, RENOVATORS, OPERATORS, MAINTENORS, DEMOLISHERS.

1. FALLS, SLIPS, TRIPS

a) WORKING AT HEIGHTS

DURING CONSTRUCTION Wherever possible, components for this building should be prefabricated off-site or at ground level to minimise the risk of workers falling more than two metres. However, construction of this building will require workers to be working at heights where a fall in excess of two metres is possible and injury is likely to result from such a fall. The builder should provide a suitable barrier wherever a person is required to work in a situation where falling more than two metres is a possibility

DURING OPERATION OR MAINTENANCE For houses or other low-rise buildings where scaffolding is

Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, ladders or trestles should be used in accordance with relevant codes of practice, regulations or legislation. For buildings where scaffold, ladders, trestles are not appropriate:

Cleaning and maintenance of windows, walls, roof or other components of this building will require persons to be situated where a fall from a height in excess of two metres is possible. Where this type of activity is required, scaffolding, fall barriers or Personal Protective Equipment (PPE) should be used in accordance with relevant codes of practice, regulations or legislation.

b) SLIPPERY OR UNEVEN SURFACES FLOOR FINISHES Specified

If finishes have been specified by designer, these have been

selected to minimise the risk of floors and paved areas becoming slippery when wet or when walked on with wet shoes/feet. Any changes to the specified finish should be made in consultation with the designer or, if this is not practical, surfaces with an equivalent or better slip resistance should be chosen. If designer has not not been involved in the selection of surface

finishes, the owner is responsible for the selection of surface finishes

in the pedestrian trafficable areas of this building. Surfaces should be selected in accordance with AS HB 197:1999 and AS/NZ

STEPS, LOOSE OBJECTS AND UNEVEN SURFACES

Due to design restrictions for this building, steps and/or ramps are included in the building which may be a hazard to workers carrying objects or otherwise occupied. Steps should be clearly marked with both visual and tactile warning during construction, maintenance. demolition and at all times when the building operates as a

Building owners and occupiers should monitor the pedestrian access ways and in particular access to areas where maintenance is routinely carried out to ensure that surfaces have not moved or cracked so that they become uneven and present a trip hazard. Spills, loose material, stray objects or any other matter that may cause a slip or trip hazard should be cleaned or removed from

Contractors should be required to maintain a tidy work site during construction, maintenance or demolition to reduce the risk of trips and falls in the workplace. Materials for construction or maintenance should be stored in designated areas away from access ways and work areas.

2. FALLING OBJECTS

LOOSE MATERIALS OR SMALL OBJECTS Construction, maintenance or demolition work on or around this building is likely to involve persons working above ground level or above floor levels. Where this occurs one or more of the following measures should be taken to avoid objects falling from the area where the work is being carried out onto persons below.

Prevent or restrict access to areas below where the work is being carried out. Provide toeboards to scaffolding or work platforms.

Provide protective structure below the work area.

Ensure that all persons below the work area have Personal Protective Equipment (PPE).

BUILDING COMPONENTS

During construction, renovation or demolition of this building, parts of the structure including fabricated steelwork, heavy panels and many other components will remain standing prior to or after supporting parts are in place. Contractors should ensure that temporary bracing or other required support is in place at all times when collapse which may injure persons in the area is a possibility

Mechanical lifting of materials and components during construction. maintenance or demolition presents a risk of falling objects. Contractors should ensure that appropriate lifting devices are used, that loads are properly secured and that access to areas below the

3. TRAFFIC MANAGEMENT

For building on a major road, narrow road or steeply sloping road: Parking of vehicles or loading/unloading of vehicles on this roadway may cause a traffic hazard. During construction, maintenance or demolition of this building designated parking for workers and loading areas should be provided. Trained traffic management personnel should be responsible for the supervision of these areas. For building where on-site loading/unloading is restricted: Construction of this building will require loading and unloading of materials on the roadway. Deliveries should be well planned to avoid congestion of loading areas and trained traffic management personnel should be used to supervise loading/unloading areas. For all buildings:

Busy construction and demolition sites present a risk of collision where deliveries and other traffic are moving within the site. A traffic management plan supervised by trained traffic management personnel should be adopted for the work site.

variety of risks including release of hazardous material. Existing services are located on or around this site. Where known, these are identified on the plans but the exact location and extent of services may vary from that indicated. Services should be located using an appropriate service (such as Dial Before You Dig), appropriate excavation practice should be used and, where

necessary, specialist contractors should be used. Locations with underground power: Underground power lines MAY be located in or around this site. All underground power lines must be disconnected or carefully located and adequate warning signs used prior to any construction, maintenance or demolition commencing.

Locations with overhead power lines: Overhead power lines MAY be near or on this site. These pose a risk of electrocution if struck or approached by lifting devices or other plant and persons working above ground level. Where there is a danger of this occurring, power lines should be, where practical, disconnected or relocated. Where this is not practical adequate warning in the form of bright coloured tape or signage should be

5. MANUAL TASKS

used or a protective barrier provided.

should be lifted by two or more workers or by mechanical lifting device. Where this is not practical, suppliers or fabricators should be required to limit the component mass. All material packaging, building and maintenance components should clearly show the total mass of packages and where practical all items should be stored on site in a way which nimises bending before lifting. Advice should be provided on safe lifting methods in all areas where lifting may occur. Construction, maintenance and demolition of this building will require the use of portable tools and equipment. These should be fully maintained in accordance with manufacturer's specifications and not used where faulty or (in the case of electrical equipment) not carrying a current electrical safety tag. All safety guards or devices should be regularly checked and Personal Protective Equipment should be used in accordance

Components within this design with a mass in excess of 25kg

6. HAZARDOUS SUBSTANCES

with manufacturer's specification.

ASBESTOS For alterations to a building constructed prior to 1990: If this existing building was constructed prior to: 1990 - it therefore may contain asbestos 1986 - it therefore is likely to contain asbestos either in cladding material or in fire retardant insulation material. In either case, the builder should check and, if necessary, take appropriate action before demolishing, cutting, sanding, drilling or otherwise disturbing the existing structure.

POWDERED MATERIALS

Many materials used in the construction of this building can cause harm if inhaled in powdered form. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation while using powdered material or when sanding, drilling, cutting or otherwise disturbing or creating powdered material.

The design of this building may include provision for the inclusion of can be harmful. Persons working on or in the building during construction, operational maintenance or demolition should ensure good ventilation and wear Personal Protective Equipment including protection against inhalation of harmful material when sanding, drilling, cutting or using treated timber in any way that may cause harmful material to be released. Do not burn treated timber.

VOLATILE ORGANIC COMPOUNDS

Many types of glue, solvents, spray packs, paints, varnishes and some cleaning materials and disinfectants have dangerous emissions. Areas where these are used should be kept well ventilated while the material is being used and for a period after installation. Personal Protective Equipment may also be required. The manufacturer's recommendations for use must be carefully considered at all times.

SYNTHETIC MINERAL FIBRE

Fibreglass, rockwool, ceramic and other material used for thermal or sound insulation may contain synthetic mineral fibre which may be harmful if inhaled or if it comes in contact with the skin, eyes or other sensitive parts or the body. Personal Protective Equipment including protection against inhalation of harmful material should be used when installing, removing or working near bulk insulation material.

TIMBER FLOORS

This building may contain timber floors which have an applied finish. Areas where finishes are applied should be kept well ventilated during sanding and application and for a period after installation. Personal Protective Equipment may also be required. The manufacturer's recommendations for use must be carefully considered at all times.

7. CONFINED SPACES

Construction of this building and some maintenance on the building will require excavation and installation of items within excavations. Where practical, installation should be carried out using methods which do not require workers to enter the excavation. Where this is not practical, adequate support for the excavated area should be provided to prevent collapse. Warning signs and barriers to prevent accidental or unauthorised access to all excavations should be provided.

ENCLOSED SPACES

For buildings with enclosed spaces where maintenance or other access may be required: Enclosed spaces within this building may present a risk to persons entering for construction, maintenance or any other purpose. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter enclosed spaces, air testing equipment and Personal Protective Equipment

SMALL SPACES For buildings with small spaces where maintenance or other access

Some small spaces within this building will require access by construction or maintenance workers. The design documentation calls for warning signs and barriers to unauthorised access. These should be maintained throughout the life of the building. Where workers are required to enter small spaces they should be scheduled so that access is for short periods. Manual lifting and other manual activity should be restricted in small spaces.

8. PUBLIC ACCESS

signs and secure barriers to unauthorised access should be rovided. Where electrical installations, excavations, plant or loose materials are present they should be secured when not fully

9. OPERATIONAL USE OF BUILDING RESIDENTIAL BUILDINGS

This building has been designed as a residential building. If it, at a later date, it is used or intended to be used as a workplace, the provisions of the Work Health and Safety Act 2011 or subsequent eplacement Act should be applied to the new use.

9.OTHER HIGH RISK ACTIVITY

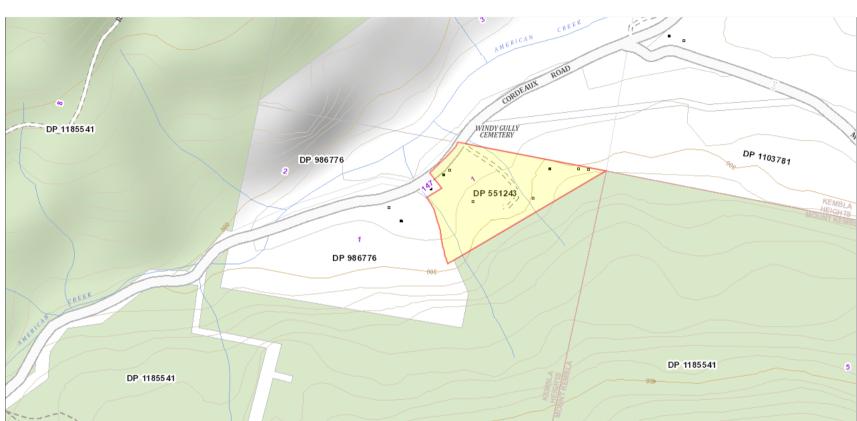
All electrical work should be carried out in accordance with Code of Practice: Managing Electrical Risks at the Workplace, AS/NZ 3012 and all licensing requirements. All work using Plant should be carried out in accordance with Code of Practice: Managing Risks of Plant at the Workplace All work should be carried out in accordance with Practice: Managing Noise and Preventing Hearing Loss at Work. Due to the history of serious incidents it is recommended that particular care be exercised when undertaking work involving steel construction and concrete placement. All the above applies.

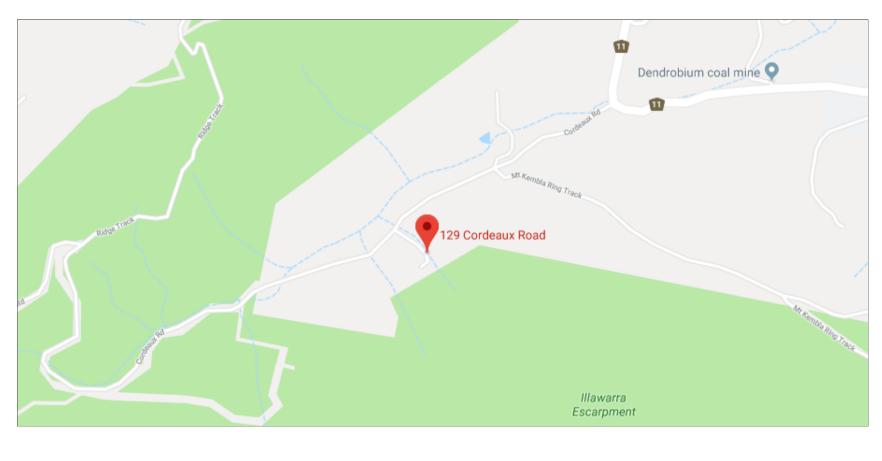
SHEET INDEX

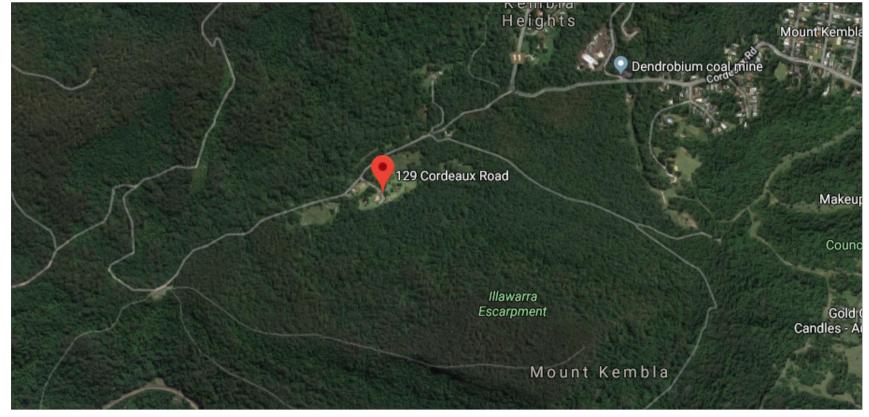
A01	COVER SHEET
A02	SITE DEMOLITION PLAN
A03	OVERALL SITE PLAN
A04	SITE PLAN / SITE ANALYSIS PLAN
A05	SITE SETBACK PLAN / SITE SETOUT PLAN
A06	WASTE MANAGEMENT PLAN
A07	CONCEPT DRAINAGE / SOIL CONSERVATION
A08	DEVELOPMENT DATA CALCULATIONS / 3D VIEWS
A09	GROUND FLOOR PLAN / LEVEL 1 FLOOR PLAN
A10	ROOF PLAN / ELEVATION
A11	ELEVATIONS
A12	BUILDING SECTIONS
A13	GARAGE FLOOR PLAN / GARAGE ROOF PLAN
A14	DOORS / WINDOWS SCHEDULES
A15	SHADOW DIAGRAMS
A16	COLOUR SCHEDULE

Location









Mrs. Nicholl

la.	Prop
ls	Project
	Lot 1 i
150	Kembl

posed Residential Dwelling in DP 551243 Cordeaux Road. la Heights ,NSW

COVER SHEET

2018-051

4/11/2022

evels shown are approximate unless accompanied by reduced levels. gured dimensions must be taken in preference to scaling. Il boundary clearances must be verified by the surveyor prior to e commencement of any building works Where engineering drawings are required such must take reference to this drawing.

rmwater to be discharged to Council's requirements I Australian Standards. All services to be located and verified by the Builder with relevant copyright, this design and the associated documents are subject to

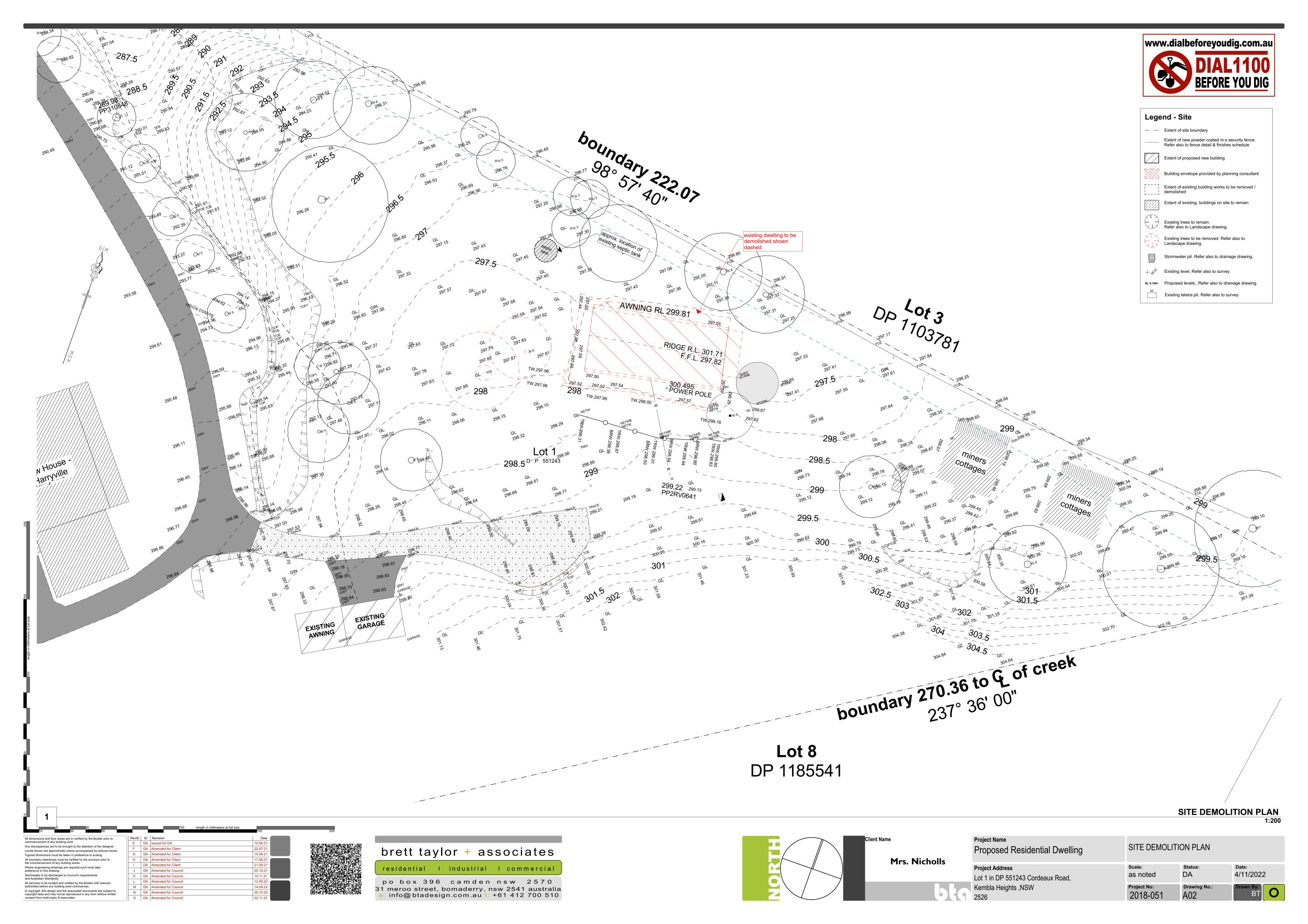
dimensions and floor areas are to verified by the Builder prior to Any discrepancies are to be brought to the attention of the designer DA Amended for Client DA Amended for Client DA Amended for Client DA Amended for Council DA Amended for Council DA Amended for Council right laws and may not be reproduced in any form without written

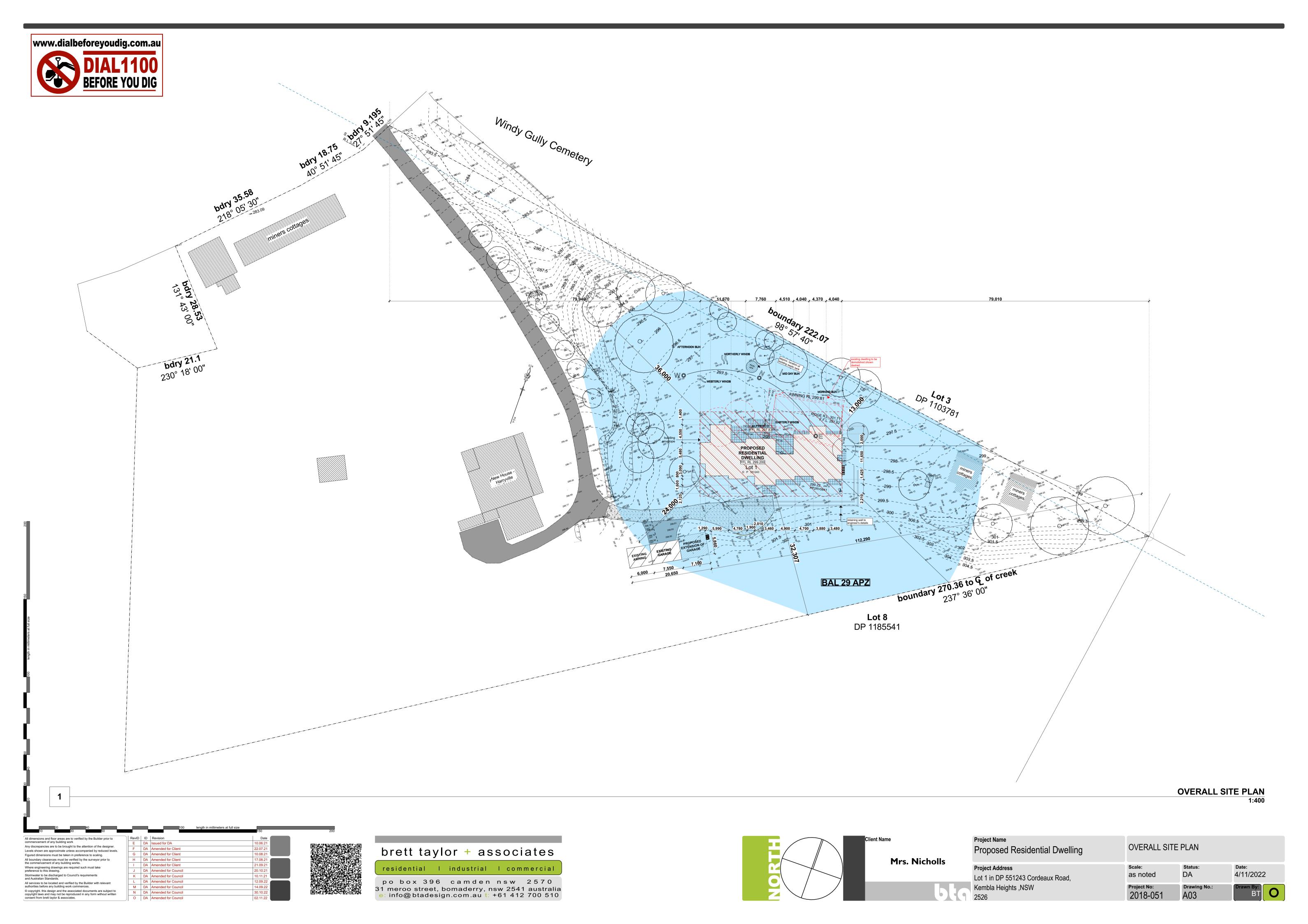


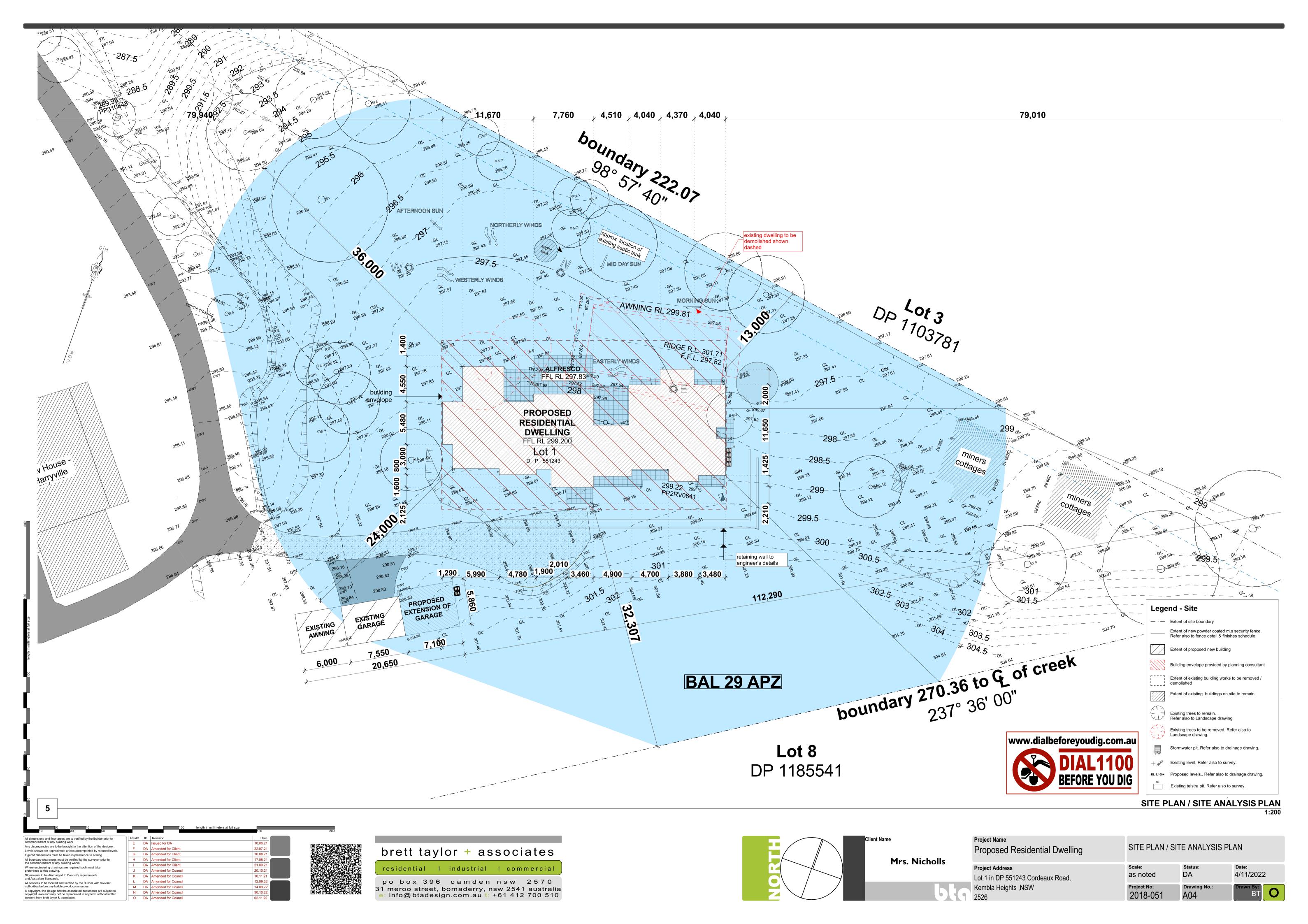


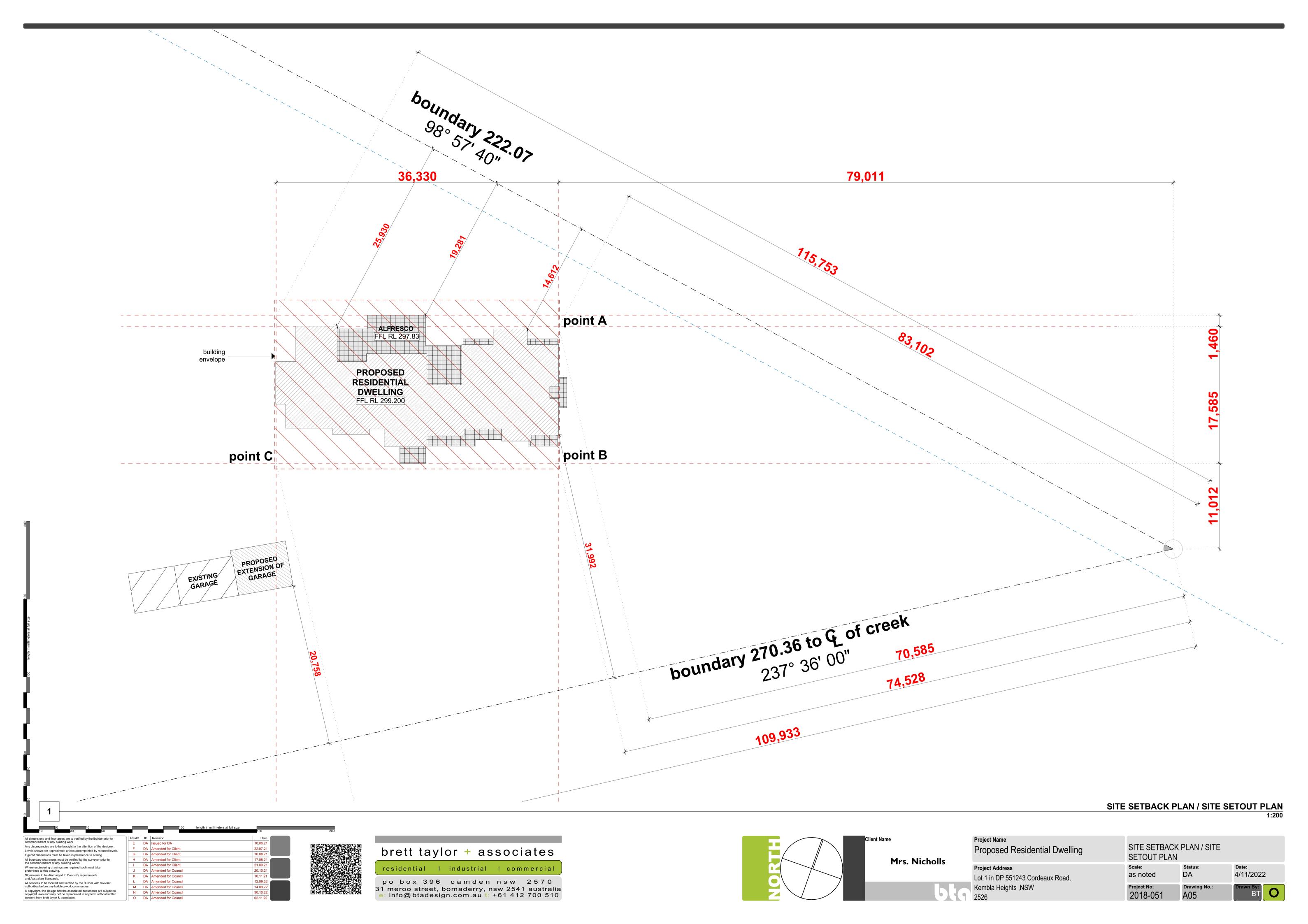
residential I industrial I commercial

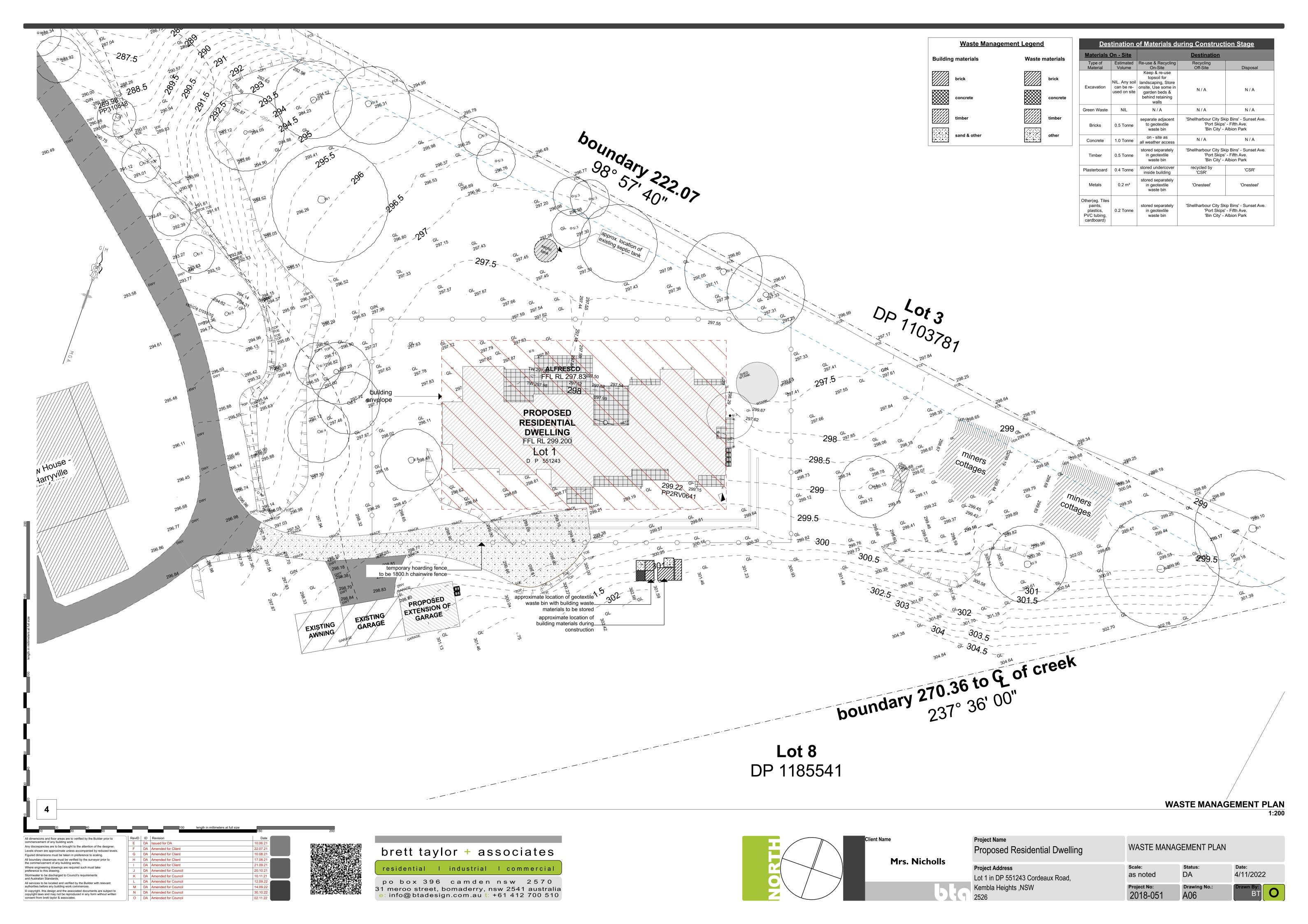
po box 396 camden nsw 2570 31 meroo street, bomaderry, nsw 2541 australia info@btadesign.com.au t: +61 412 700 510

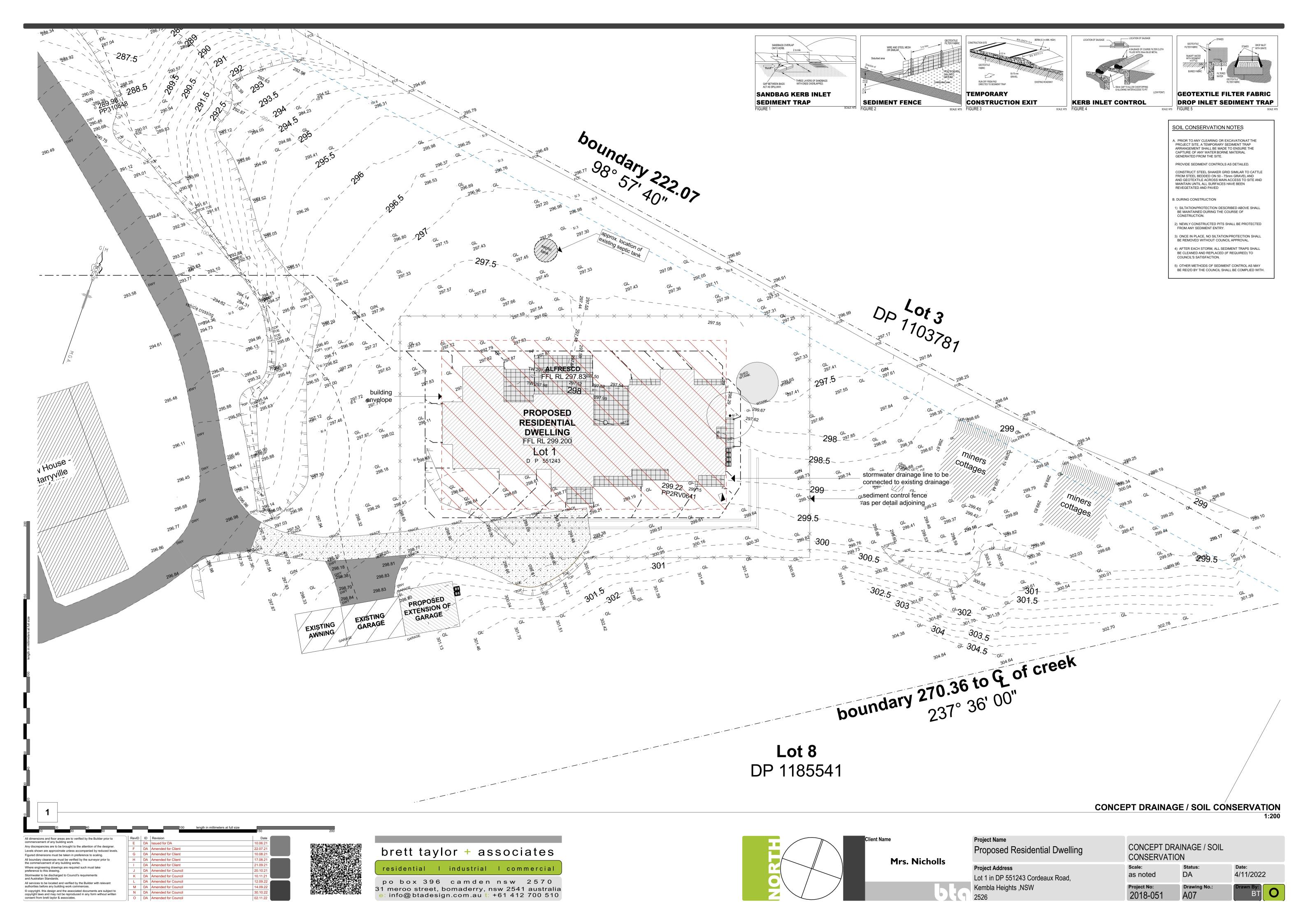


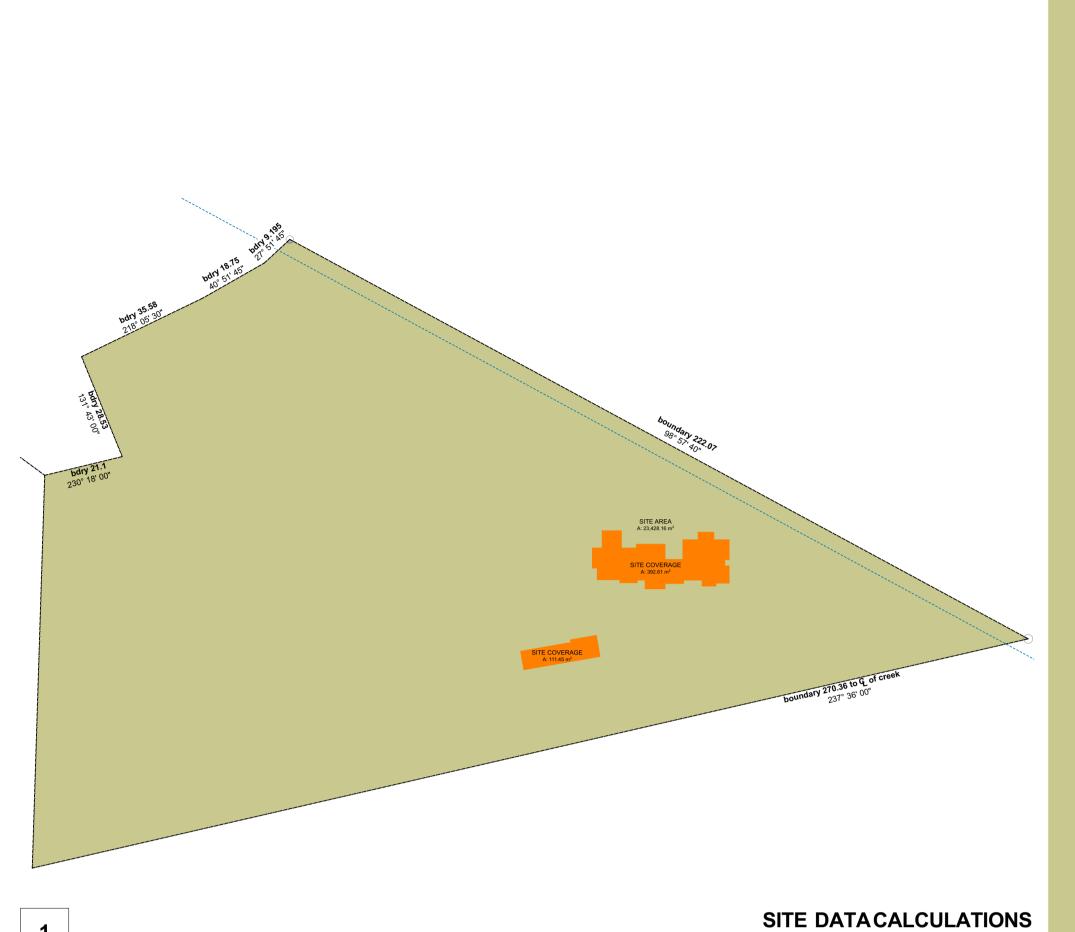












	SITE DATA	
Zone	Name	m²
001	SITE COVERAGE	504.06
002	SITE AREA	23,428.16

RevID ID Revision

DA Issued for DA
DA Amended for Client
DA Amended for Client

H DA Amended for Client
I DA Amended for Client
J DA Amended for Council
K DA Amended for Council
L DA Amended for Council

M DA Amended for Council
N DA Amended for Council

All dimensions and floor areas are to verified by the Builder prior to commencement of any building work

Any discrepancies are to be brought to the attention of the designer.

Figured dimensions must be taken in preference to scaling.

Stormwater to be discharged to Council's requirements and Australian Standards.

consent from brett taylor & associates.

All boundary clearances must be verified by the surveyor prior to the commencement of any building works. Where engineering drawings are required such must take preference to this drawing.

All services to be located and verified by the Builder with relevant authorities before any building work commences.

© copyright, this design and the associated documents are subject to copyright laws and may not be reproduced in any form without written

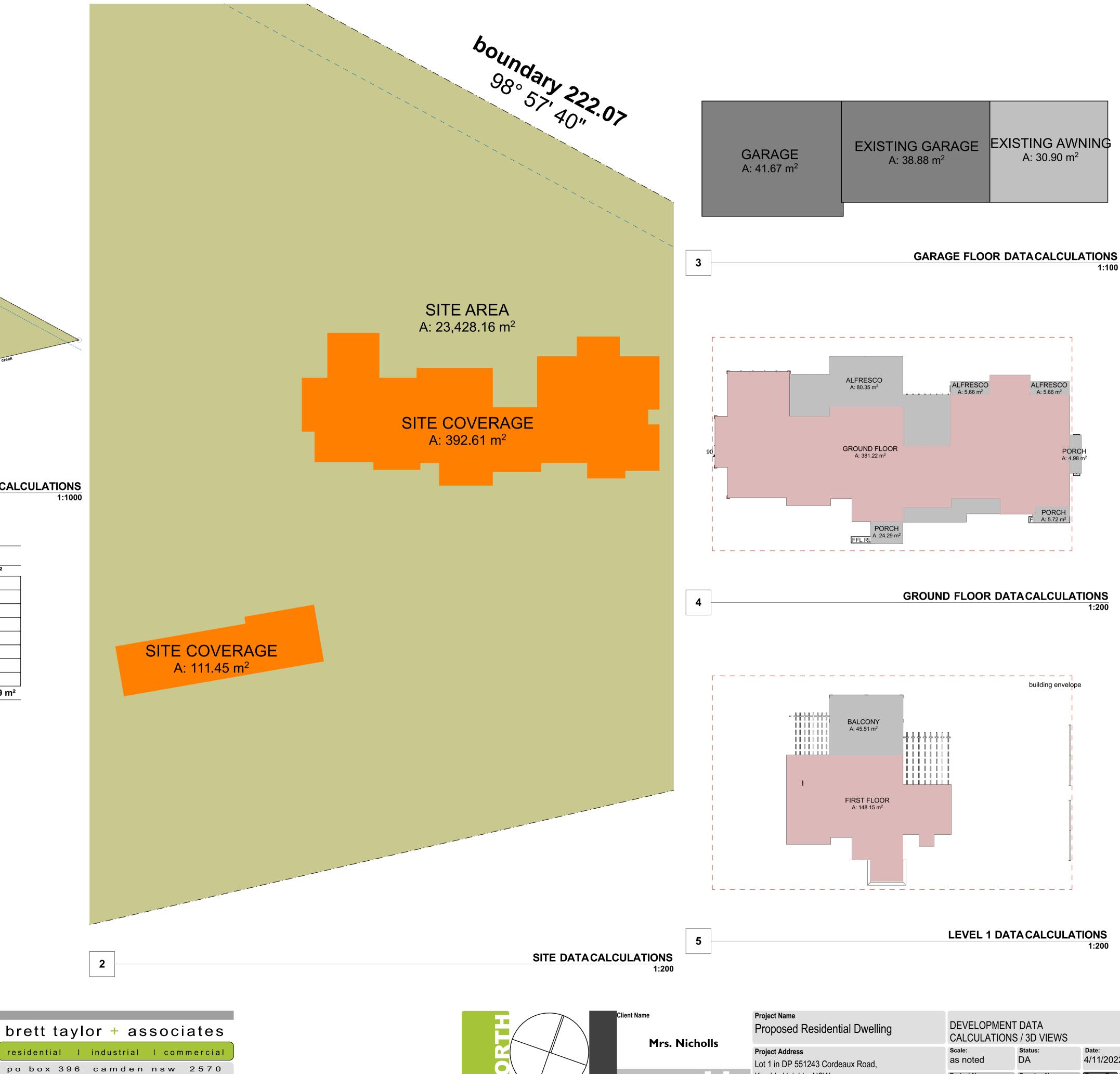
Levels shown are approximate unless accompanied by reduced levels.

Zone	Name	m²
01	GROUND FLOOR	381.22
02	FIRST FLOOR	148.15
03	PORCH	34.99
04	ALFRESCO	91.67
05	BALCONY	45.51
06	GARAGE	41.67
07	EXISTING GARAGE	38.88
08	EXISTING AWNING	30.90
	•	812.99 m

Date 10.06.21 22.07.21 10.08.21 17.08.21 21.09.21 20.10.21

10.11.21 12.09.22 14.09.22 30.10.22

31 meroo street, bomaderry, nsw 2541 australia e: info@btadesign.com.au t: +61 412 700 510



ALFRESCO A: 5.66 m²

PORCH A: 5.72 m²

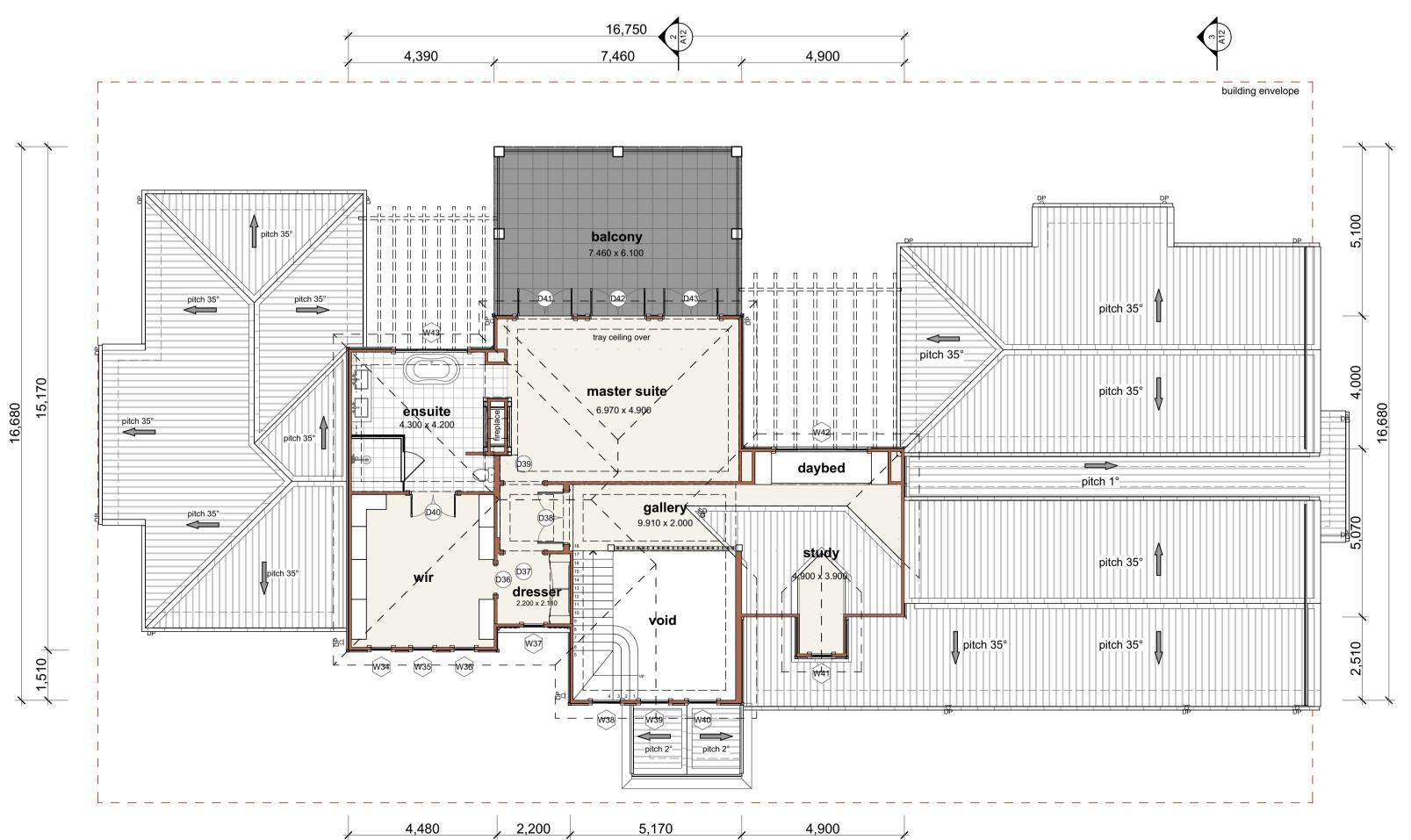
building envelope

4/11/2022

Project No: 2018-051

Kembla Heights ,NSW





LEVEL 1 FLOOR PLAN

General notes

• Verify on site all survey information including all existing services & levels prior to construction.

• Demolish existing structures & clear all vegetation as required and/or as shown on drawings, ready for new works. Dispose of demolished building materials and asbestos material encountered during demolition, except those items specifically identified for

• Terminate, cap off or divert of all existing services where so require and/or as necessary to carry out new works. Perform all works in best tradesman-like manner and to the satisfaction of relevant authorities.

• Refer to structural eng's documents for details of conc. Slabs, steps, footings including sizes of structural members. All timber framing sizes shall comply with the timber framing code.

• Comply with landscaping requirements as required by the council conditions and/or as detailed by landscape architect .

Refer to hydraulic eng's details for location and levels of all storm water pits. Uno. Connect all downpipes into nearest existing storm water system as required and/or to hyd. Eng's details. Uno. Provide fall in ground finishes ensuring all storm water falls away from building. Lay paving with sufficient fall to pit to avoid ponding.

• Refer to hydraulic eng's details for details of sewer connection . Comply with relevant authorities requirements.

• Supply & install all electrical services including but not limited to,

power, exit signs, emergency lifting & telephone supply to relevant aust standards & authorities requirements. Supply & install all mechanical ventilation including but not limited

to, mechanical exhaust fans & ducts, air conditioning units & ducts to relevant aust standards & authorities requirements.

gutter to council's requirements. repair & reinstate to surrounds where disturbed by new works to council engineer's specification. Provide physical termite treatment in accordance with as 3660.1 • WC with inward swinging doors closer than 1200mm to the pan

• Remove all redundant vehicle crossings & replaced with kerb &

shall be fitted with lift off hinges as required by BCA. • Uno. Provide 50mm set down in floor slab to all wet areas. Lay paving with sufficient fall to floor waste to avoid ponding.

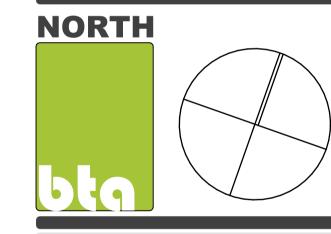
• At completion clean up the site prior to hand over. repair &

• repair & reinstate to all surfaces, damaged / effected during new

vID	ID	Revision	Date
E	DA	Issued for DA	10.06.21
F	DA	Amended for Client	22.07.21
G	DA	Amended for Client	10.08.21
Н	DA	Amended for Client	17.08.21
I	DA	Amended for Client	21.09.21
J	DA	Amended for Council	20.10.21
K	DA	Amended for Council	10.11.21
L	DA	Amended for Council	12.09.22
М	DA	Amended for Council	14.09.22
N	DA	Amended for Council	30.10.22
0	DA	Amended for Council	02.11.22

DOOR SCHEDULE	GROUND FL	OOR
 STUD OBENING	UEICUT	1.0

ID	STUD OPENING	HEIGHT	LEAF SIZE
	820	2,100	
	1,120	2,100	
D01	3,450	2,400	1,640×2,040
D02	4,360	2,400	1,640×2,040
D03	3,450	2,400	1,640×2,040
D04	900	2,100	820×2,040
D05	900	2,400	820×2,340
D06	800	2,400	720×2,360
D07	800	2,400	720×2,340
D08	800	2,400	720×2,340
D09	800	2,400	720×2,340
D10	1,720	2,400	1,640×2,040
D11	1,720	2,400	1,640×2,040
D12	1,720	2,400	1,640×2,040
D13	2,320	2,400	1,640×2,040
D14	1,200	2,400	1,120×2,360
D15	1,720	2,400	1,640×2,040
D16	1,200	2,400	1,120×2,340
D17	1,000	2,100	920×2,040
D18	1,800	2,400	1,720×2,340
D19	800	2,100	720×2,040
D20	800	2,100	720×2,040
D21	1,520	2,100	1,440×2,040
D22	800	2,100	720×2,040
D23	800	2,100	720×2,040
D24	1,720	2,450	1,640×2,040
D25	800	2,100	720×2,040
D26	800	2,100	720×2,040
D27	800	2,100	720×2,040
D28	800	2,100	720×2,040
D29	1,520	2,100	1,440×2,040
D30	1,720	2,450	1,640×2,040
D31	900	2,100	820×2,040
D32	900	2,100	820×2,040
D33	900	2,100	820×2,040
D34	800	2,100	720×2,040
D35	1,720	2,400	1,640×2,040
DG01	6,010	2,200	
EX	900	2,100	820×2,040
EX	2,770	2,200	



Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road Kembla Heights,NSW

Mrs. Nicholls

brett taylor + associates residential I industrial I commercial

po box 396 camden nsw 2570 31 meroo street, bomaderry, nsw 2541 australia

: info@btadesign.com.au t: +61 412 700 510

All dimensions and floor areas are to verified by the Builder prior to commencement of any building work

Any discrepancies are to be brought to the attention of the designer. Levels shown are approximate unless accompanied by reduced levels. Figured dimensions must be taken in preference to scaling. All boundary clearances must be verified by the surveyor prior to the commencement of any building works.

Where engineering drawings are required such must take preference to this drawing. Stormwater to be discharged to Council's requirements and Australian Standards.

All services to be located and verified by the Builder with relevant authorities before any building work commences. © copyright, this design and the associated documents are subject to copyright laws and may not be reproduced in any form without written consent from brett taylor & associates.

GROUND FLOOR PLAN / LEVEL 1 FLOOR PLAN Drawing Number A09

Project No: 2018-051 as noted

Legend: ASR Adjust. Shower rose
BP Bagged wash & painted
B Basin
BTH Bath
BR Broom cupboard
C Carpet as specified
CAP Ceiling access panel
CR Cement rendered finish
CRT Cook top
DP Downpipe
DWU Drawer unit
EJ Expansion Joint
FG Fixed glass
FW Floor waste
GL Glass louvers
GR Grab rail
HDT Hardwood decking timber
HWS Hot water system
MR Mirror
PB Plasterboard lining
PBC Plasterboard cornice
PTF Polished timber floor boards
NSCT Non-slip ceramic tile
R Towel ring S ASR Adjust. Shower rose BP Bagged wash & painte REF Refrigerator RH Range hood RS Rotating shelves S Kitchen sink SCR Shower curtain rail
SF Shelf
SH Soap holder
SHR Shower
SHS Shower screen SRS Shower rose STF Steel trowel finished concrete Timber cladding as spec.
Timber louvers TPH Toilet paper holder TR Towel rail

DOOR SCHEDULE LEVEL 1

ID STUD OPENING

900

1,200

1,620

1,200

1,420

1,720

1,720

1,720

D36

D37

D38

D39

D40

D41

D42

D43

HEIGHT

2,100

2,100

2,100

2,100

2,100

2,100

2,100

2,100

LEAF SIZE

820×2,060

1,120×2,060

1,540×2,040

1,120×2,060

1,340×2,040

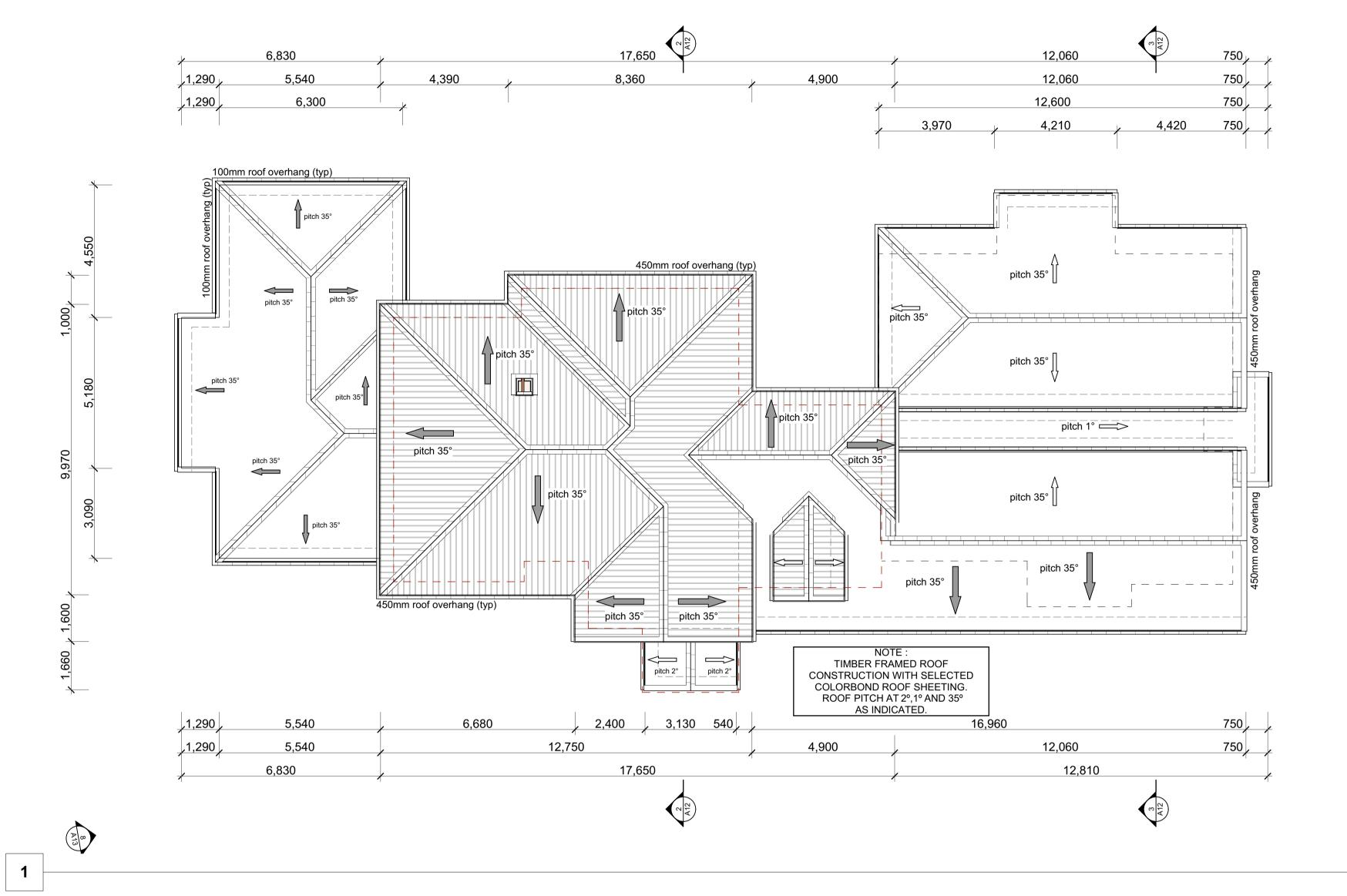
1,640×2,040

1,640×2,040

1,640×2,040

T Laundry tub
UBO Under Bench Oven Vanity Unit Vertical Expansion Joint VSK Vinyl skirting WC Toilet suite WM Washing machine WO Wall oven

reinstate to surrounds where disturbed during new works.

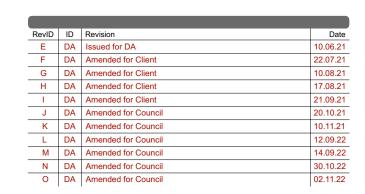


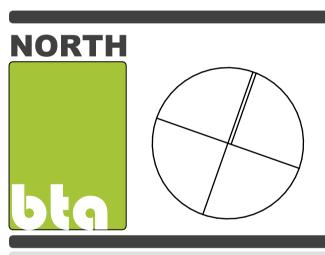


Leg	end:		
ASR	Adjust. Shower rose	REF	Refrigerator
BP	Bagged wash & painted	RH	Range hood
В	Basin	RS	Rotating shelves
BTH	Bath	S	Kitchen sink
BR	Broom cupboard	SCR	Shower curtain rail
С	Carpet as specified	SF	Shelf
CAP	Ceiling access panel	SH	Soap holder
CR	Cement rendered finish	SHR	Shower
CRT	Ceramic tiles	SHS	Shower screen
CT	Cook top	SRS	Shower rose
DP	Downpipe	STF	Steel trowel finished concrete
DWU	Drawer unit	TC	Timber cladding as spec.
EJ	Expansion Joint	TL	Timber louvers
FG	Fixed glass	TPH	Toilet paper holder
FW	Floor waste	TR	Towel rail
GL		T	Laundry tub
GR		UBO	Under Bench Oven
HDT	9	V	Vanity Unit
HWS	Hot water system	VJ	Vertical Expansion Joint
MR	Mirror	VSK	Vinyl skirting
PB	Plasterboard lining	WC	Toilet suite
PBC		WM	Washing machine
PTF	Polished timber floor boards	WO	Wall oven
NSCT		•••	
R	Towel ring	SA()	Smoke Alarm

ROOF PLAN

1:100





Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road Kembla Heights,NSW 2526

Mrs. Nicholls

brett taylor + associates

residential I industrial I commercial

po box 396 camden nsw 2570

31 meroo street, bomaderry, nsw 2541 australia

e: info@btadesign.com.au t: +61 412 700 510

All dimensions and floor areas are to verified by the Builder prior to commencement of any building work

Any discrepancies are to be brought to the attention of the designer.

Levels shown are approximate unless accompanied by reduced levels.

Figured dimensions must be taken in preference to scaling.

All boundary clearances must be verified by the surveyor prior to

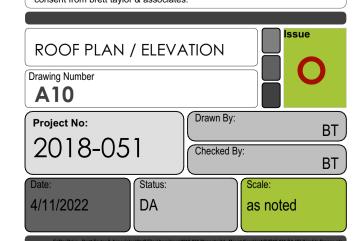
the commencement of any building works.

Where engineering drawings are required such must take preference to this drawing.

Stormwater to be discharged to Council's requirements and Australian Standards.

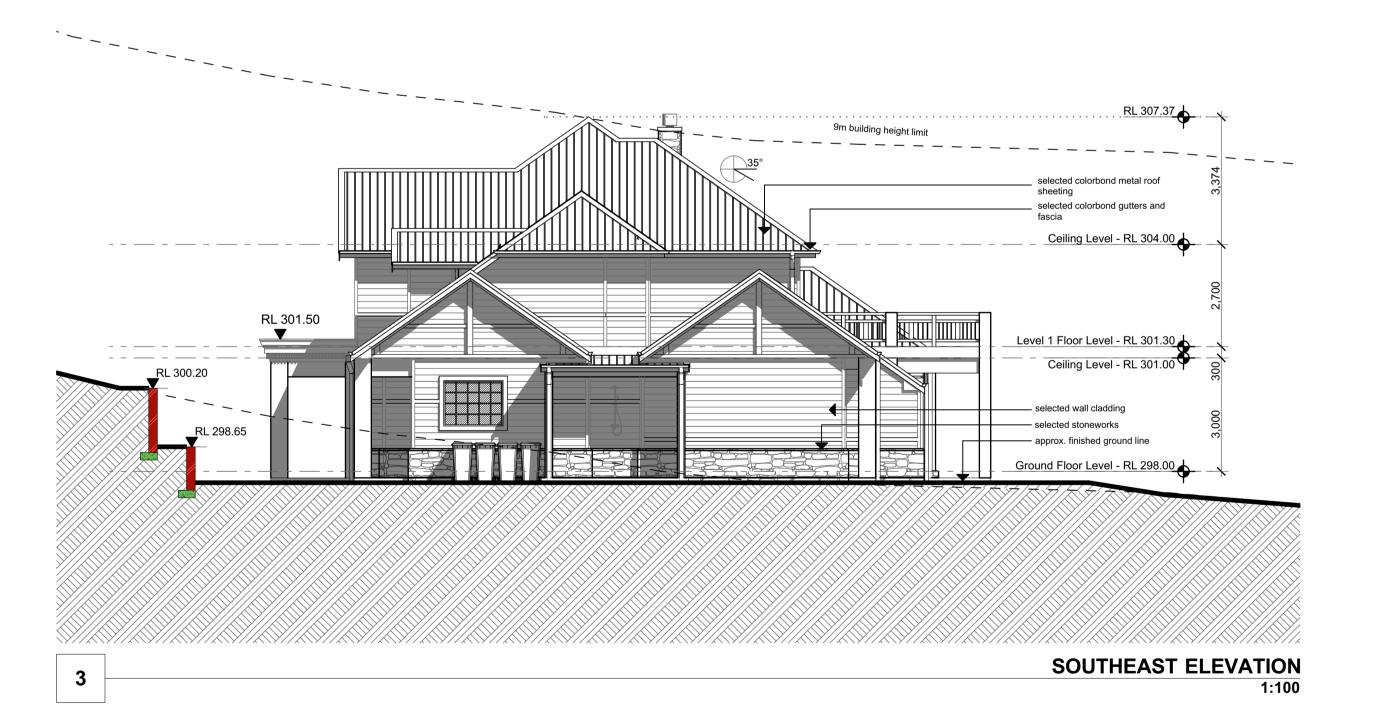
All services to be located and verified by the Builder with relevant authorities before any building work commences.

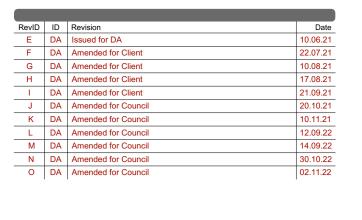
© copyright this design and the associated documents are subject to copyright laws and may not be reproduced in any form without written consent from brett taylor & associates.













Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road Kembla Heights,NSW 2526

Mrs. Nicholls

brett taylor + associates

residential I industrial I commercial po box 396 camden nsw 2570

31 meroo street, bomaderry, nsw 2541 australia

e: info@btadesign.com.au t: +61 412 700 510

All dimensions and floor areas are to verified by the Builder prior to

commencement of any building work

Any discrepancies are to be brought to the attention of the designer.

Levels shown are approximate unless accompanied by reduced levels.

Figured dimensions must be taken in preference to scaling.

All boundary clearances must be verified by the surveyor prior to the commencement of any building works.

Where engineering drawings are required such must take preference to this drawing.

Stormwater to be discharged to Council's requirements and Australian Standards.

All services to be located and verified by the Builder with relevant

© copyright. this design and the associated documents are subject to copyright laws and may not be reproduced in any form without written consent from brett taylor & associates.

authorities before any building work commences.

ELEVATIONS

Drawing Number

A11

Project No:

2018-051

Drawn By:

Checked By:

BT

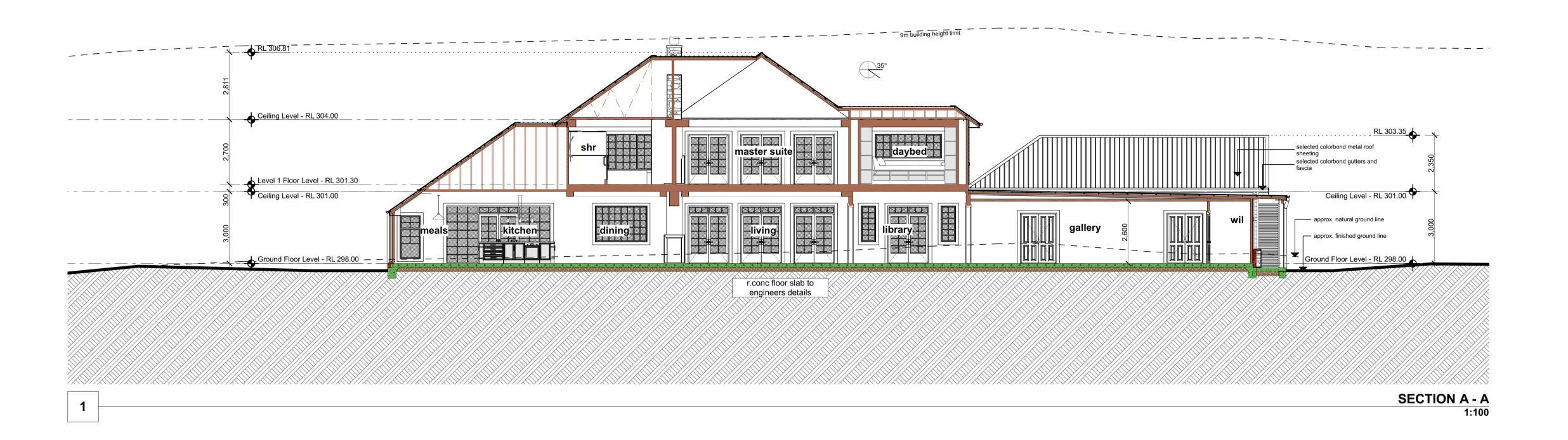
Date:

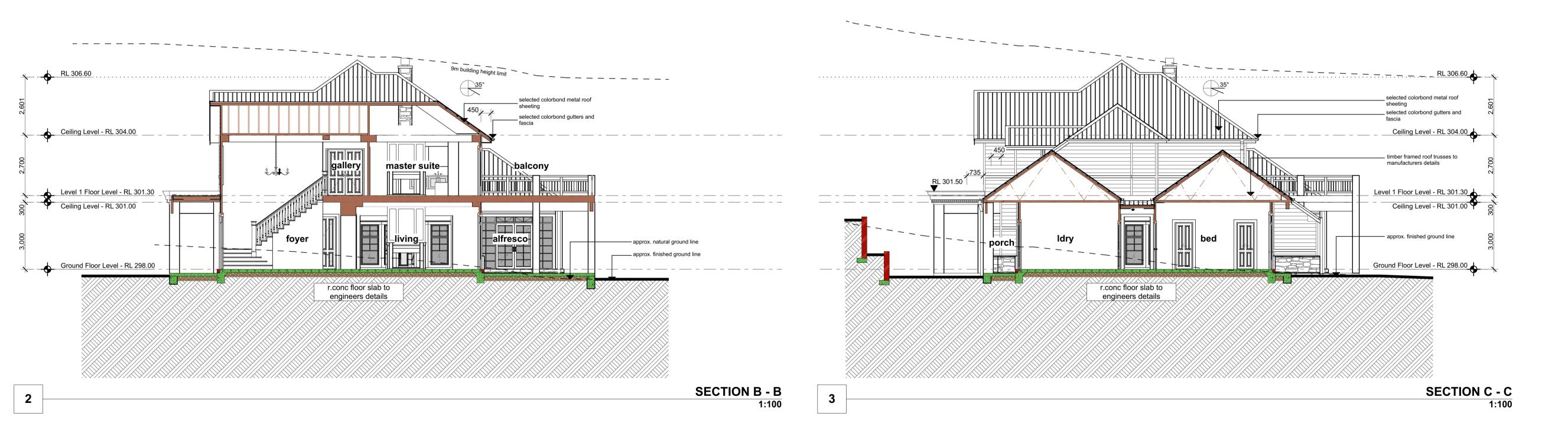
Status:

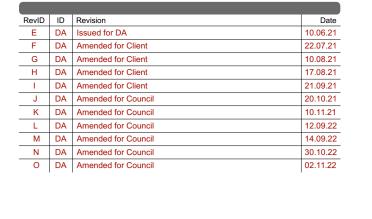
A144 (2022)

Date:

D









Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road Kembla Heights,NSW 2526

Mrs. Nicholls

brett taylor + associates

residential I industrial I commercial po box 396 camden nsw 2570

31 meroo street, bomaderry, nsw 2541 australia

e: info@btadesign.com.au t: +61 412 700 510

All dimensions and floor areas are to verified by the Builder prior to commencement of any building work

Any discrepancies are to be brought to the attention of the designer.

Levels shown are approximate unless accompanied by reduced levels.

Figured dimensions must be taken in preference to scaling.

All boundary clearances must be verified by the surveyor prior to the commencement of any building works.

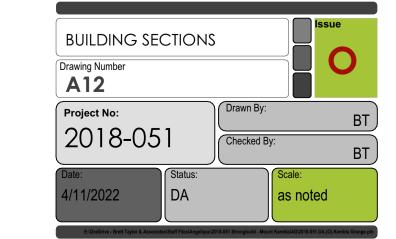
Where engineering drawings are required such must take preference to this drawing.

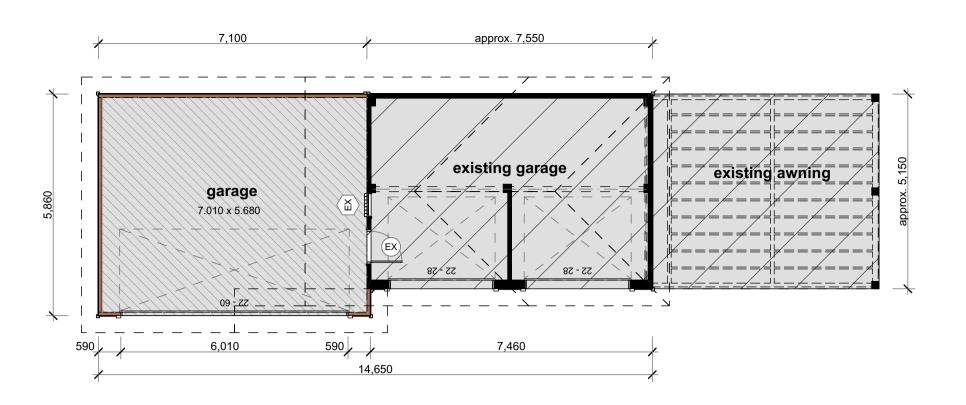
Stormwater to be discharged to Council's requirements

and Australian Standards.

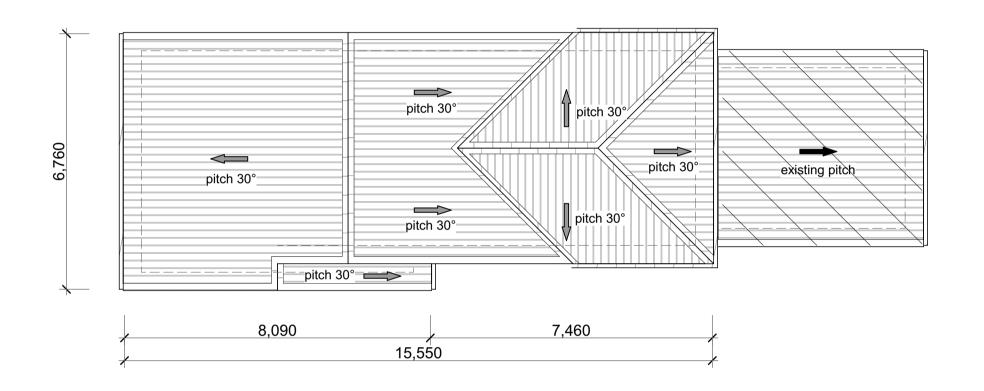
All services to be located and verified by the Builder with relevant authorities before any building work commences.

© copyright. this design and the associated documents are subject to copyright laws and may not be reproduced in any form without written consent from brett taylor & associates.

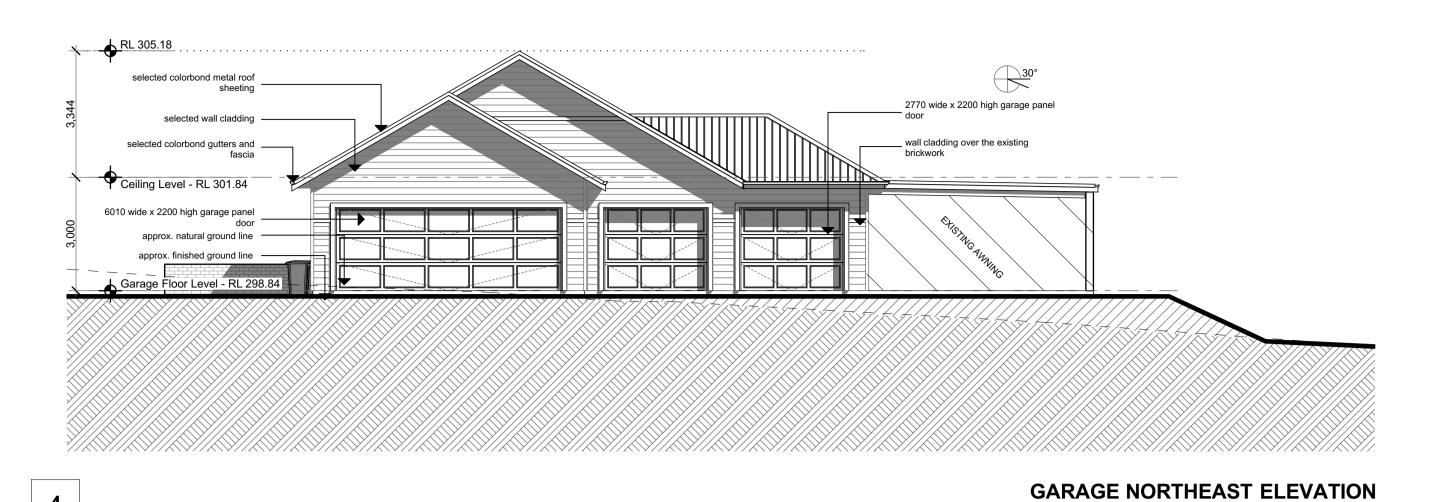


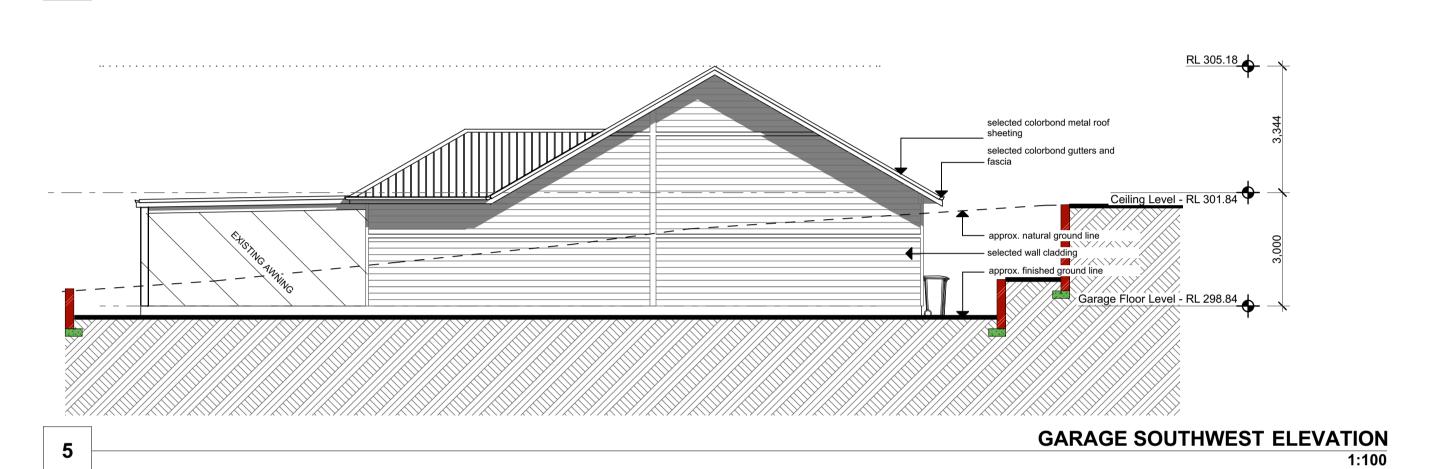


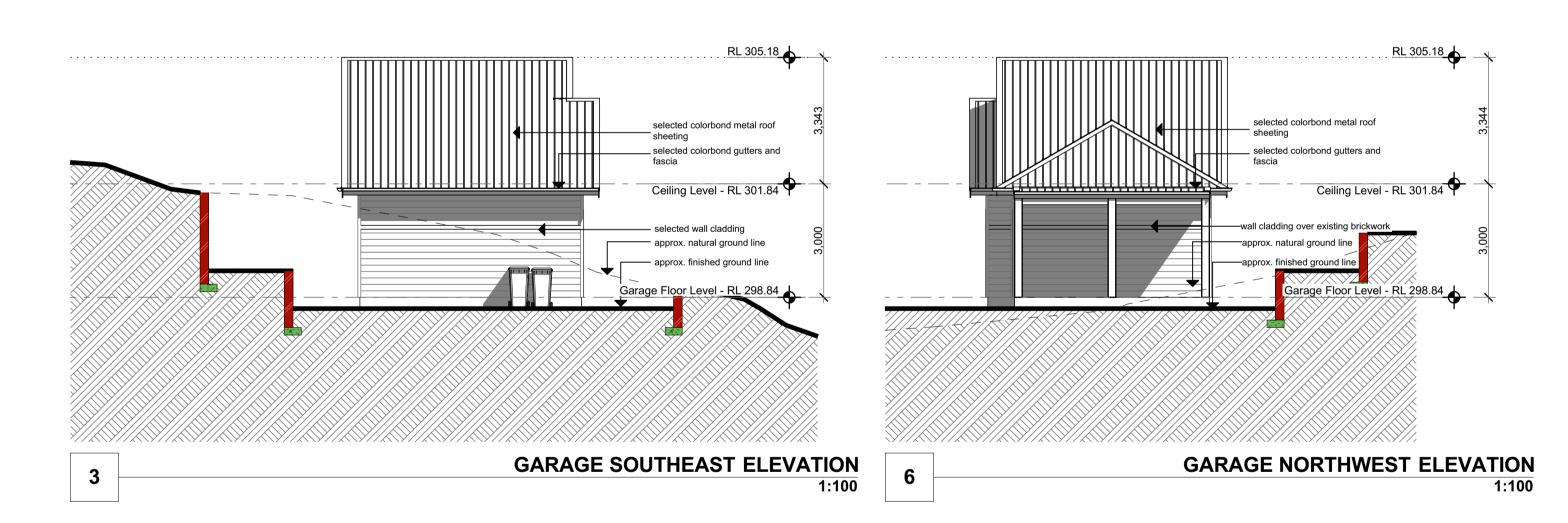
1 GARAGE FLOOR PLAN
1:100

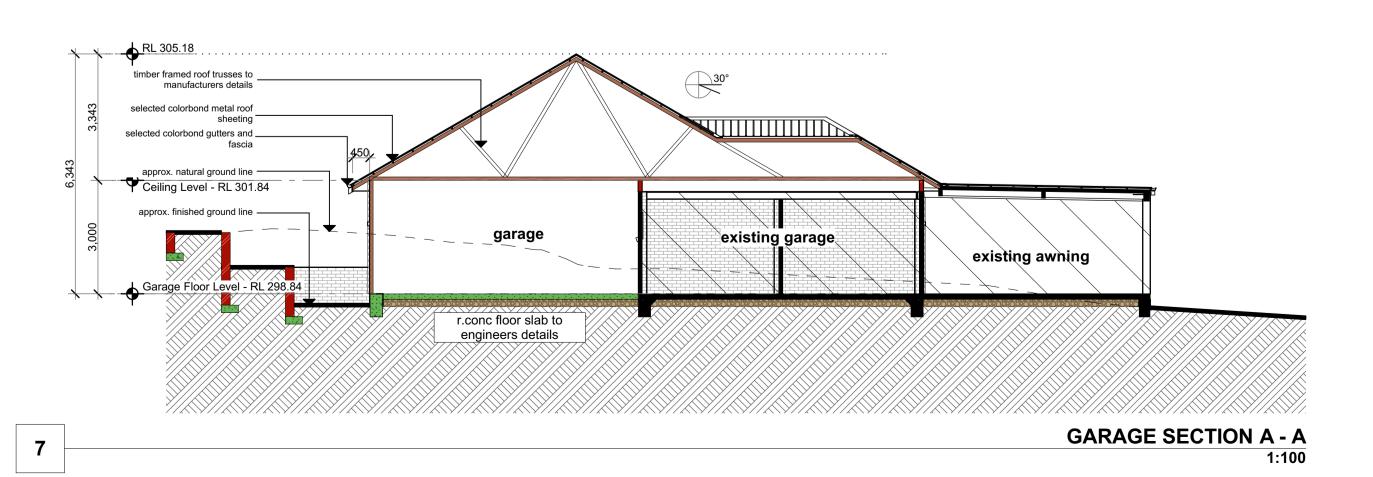


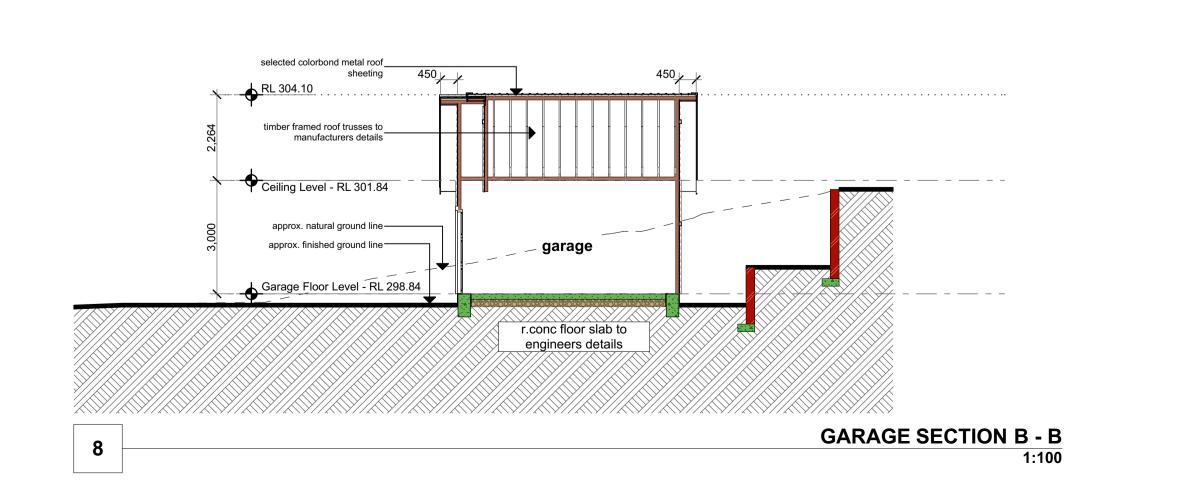
ROOF PLAN
1:100

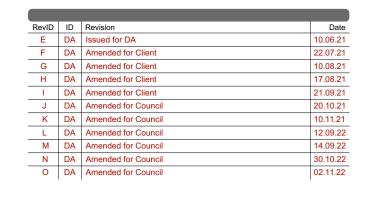




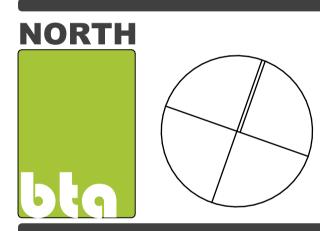








1:100



Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road Kembla Heights,NSW 2526

Mrs. Nicholls

brett taylor + associates

residential I industrial I commercial po box 396 camden nsw 2570

31 meroo street, bomaderry, nsw 2541 australia

e: info@btadesign.com.au t: +61 412 700 510

All dimensions and floor areas are to verified by the Builder prior to

commencement of any building work

Any discrepancies are to be brought to the attention of the designer.

Levels shown are approximate unless accompanied by reduced levels.

Figured dimensions must be taken in preference to scaling.

All boundary clearances must be verified by the surveyor prior to the commencement of any building works.

Where engineering drawings are required such must take preference to this drawing.

Stormwater to be discharged to Council's requirements and Australian Standards.

All services to be located and verified by the Builder with relevant authorities before any building work commences.

© copyright. this design and the associated documents are subject to

copyright laws and may not be reproduced in any form without written consent from brett taylor & associates.

GARAGE FLOOR PLAN /
GARAGE ROOF PLAN

Drawing Number

A13

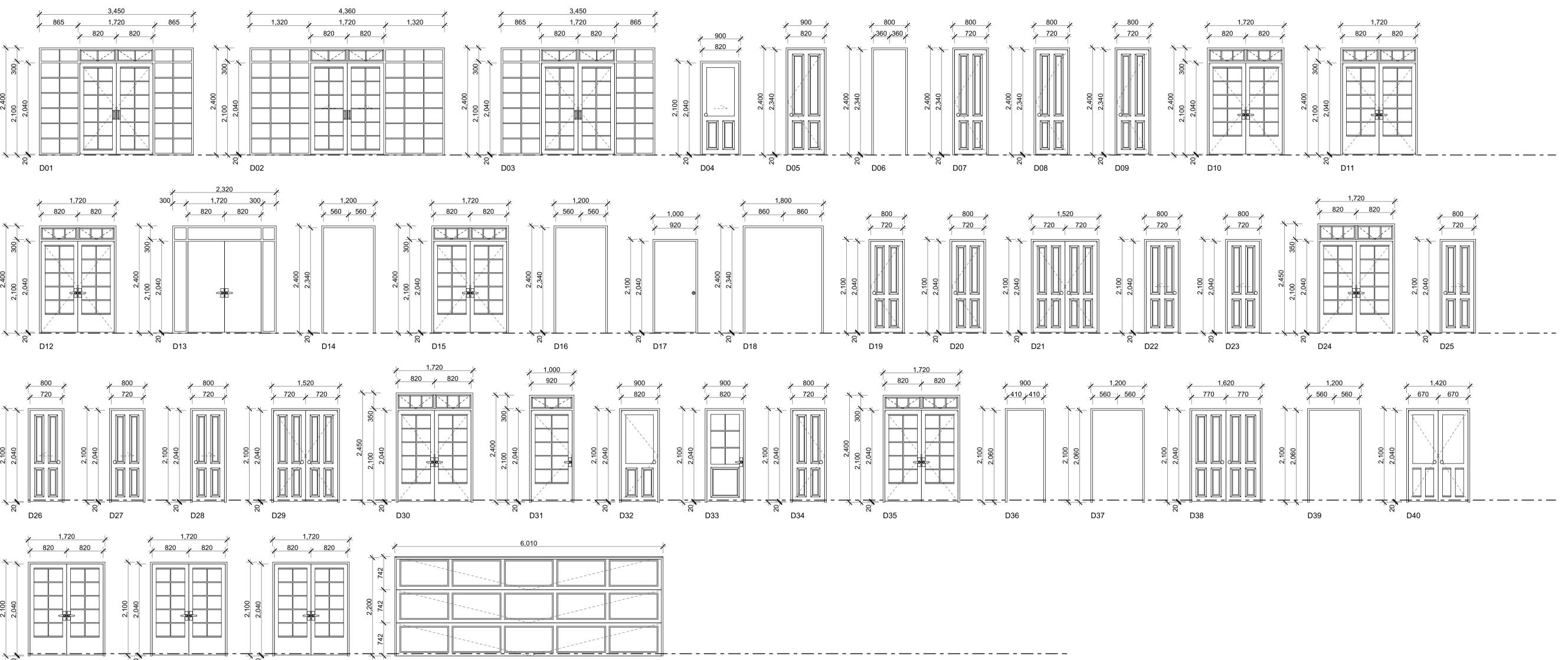
Project No:

Drawn By:

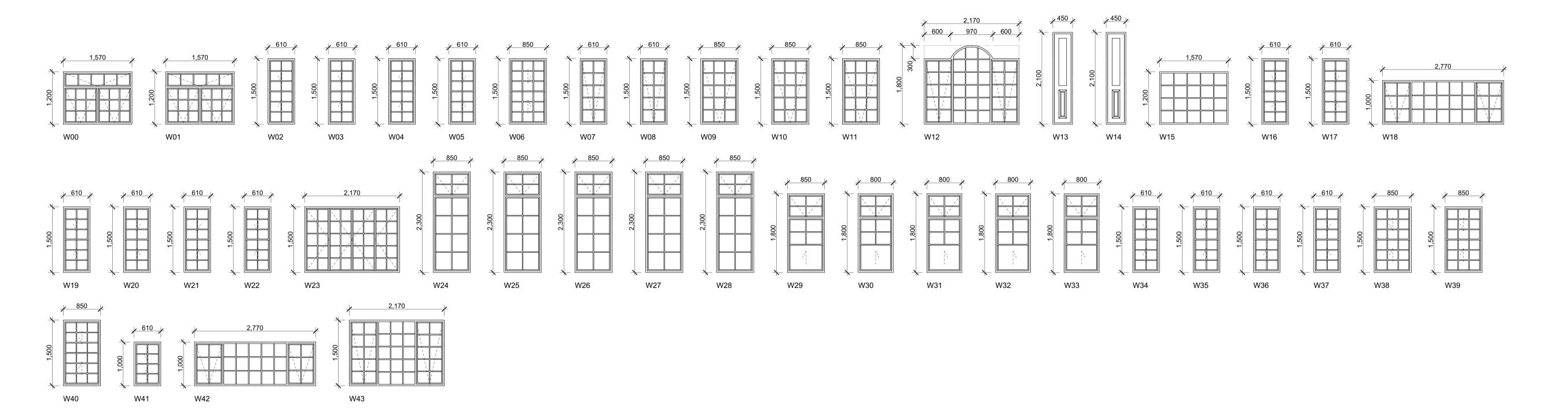
Project No:
2018-051

Date:
4/11/2022

Drawn By:
BT
Checked By:
BT
Scale:
as noted



DOOR SCHEDULE 1:50





RevID ID Revision

E DA Issued for DA

F DA Amended for Client

G DA Amended for Client

I DA Amended for Client

J DA Amended for Client
J DA Amended for Council
K DA Amended for Council
L DA Amended for Council
M DA Amended for Council
N DA Amended for Council
O DA Amended for Council

Date 10.06.21 22.07.21 10.08.21 17.08.21 21.09.21 20.10.21 10.11.21 12.09.22 14.09.22 30.10.22 02.11.22

Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road Kembla Heights,NSW 2526

Mrs. Nicholls

brett taylor + associates residential I industrial I commercial

po box 396 camden nsw 2570 31 meroo street, bomaderry, nsw 2541 australia

e: info@btadesign.com.au t: +61 412 700 510

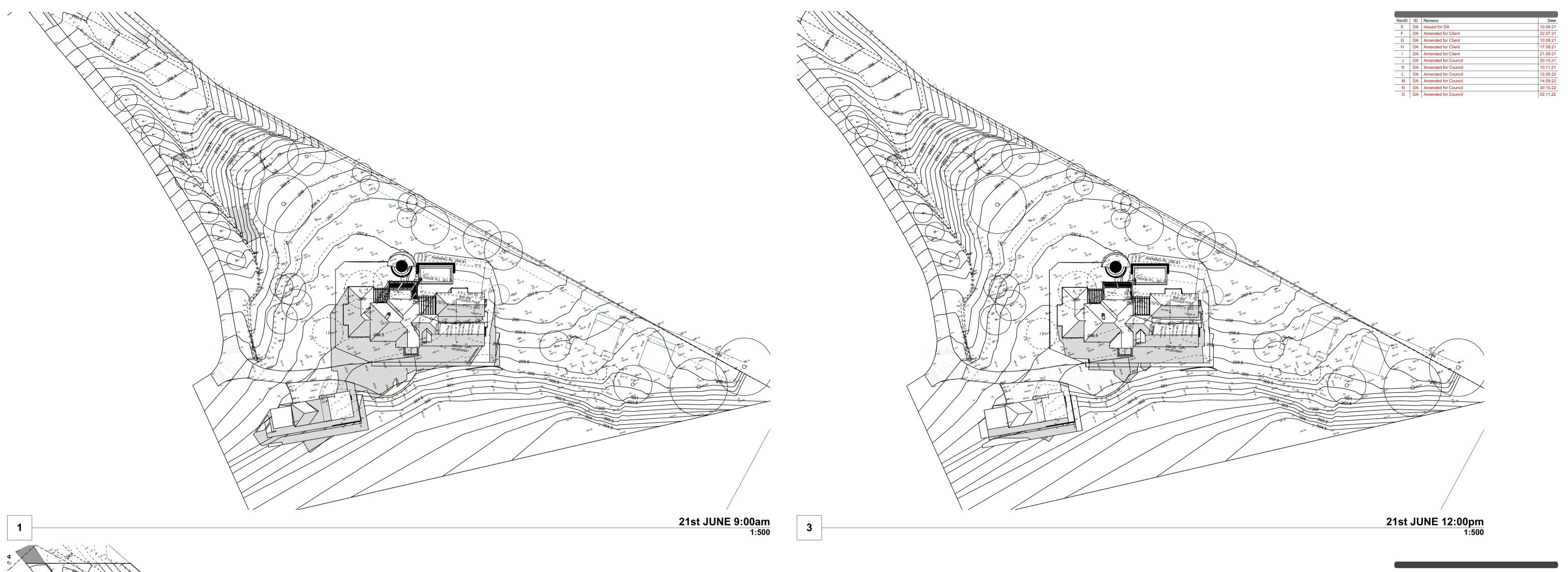
All dimensions and floor areas are to verified by the Builder prior to commencement of any building work Any discrepancies are to be brought to the attention of the designer. Levels shown are approximate unless accompanied by reduced levels. Figured dimensions must be taken in preference to scaling. All boundary clearances must be verified by the surveyor prior to

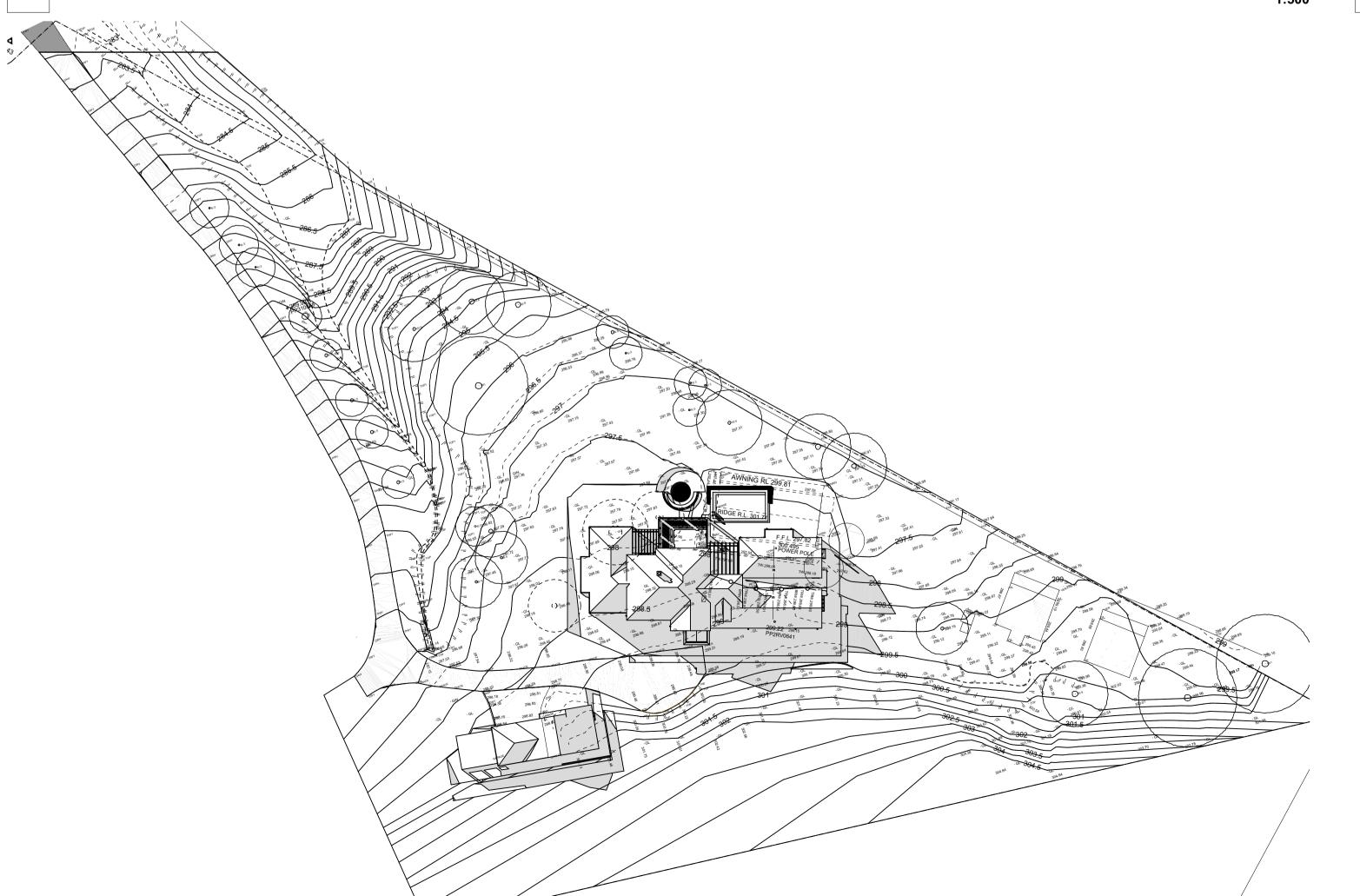
the commencement of any building works. Where engineering drawings are required such must take preference to this drawing. Stormwater to be discharged to Council's requirements and Australian Standards.

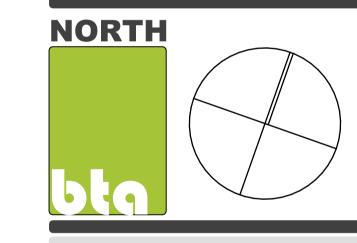
All services to be located and verified by the Builder with relevant authorities before any building work commences. © copyright. this design and the associated documents are subject to copyright laws and may not be reproduced in any form without written consent from brett taylor & associates.

DOORS / WINDOWS SCHEDULES Drawing Number A14 Project No: 11/2022 as noted

WINDOW SCHEDULE







Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road Kembla Heights,NSW

Mrs. Nicholls

brett taylor + associates residential I industrial I commercial

po box 396 camden nsw 2570

31 meroo street, bomaderry, nsw 2541 australia

e: info@btadesign.com.au t: +61 412 700 510

All dimensions and floor areas are to verified by the Builder prior to commencement of any building work Any discrepancies are to be brought to the attention of the designer. Levels shown are approximate unless accompanied by reduced levels. Figured dimensions must be taken in preference to scaling.

All boundary clearances must be verified by the surveyor prior to the commencement of any building works.

Where engineering drawings are required such must take preference to this drawing.

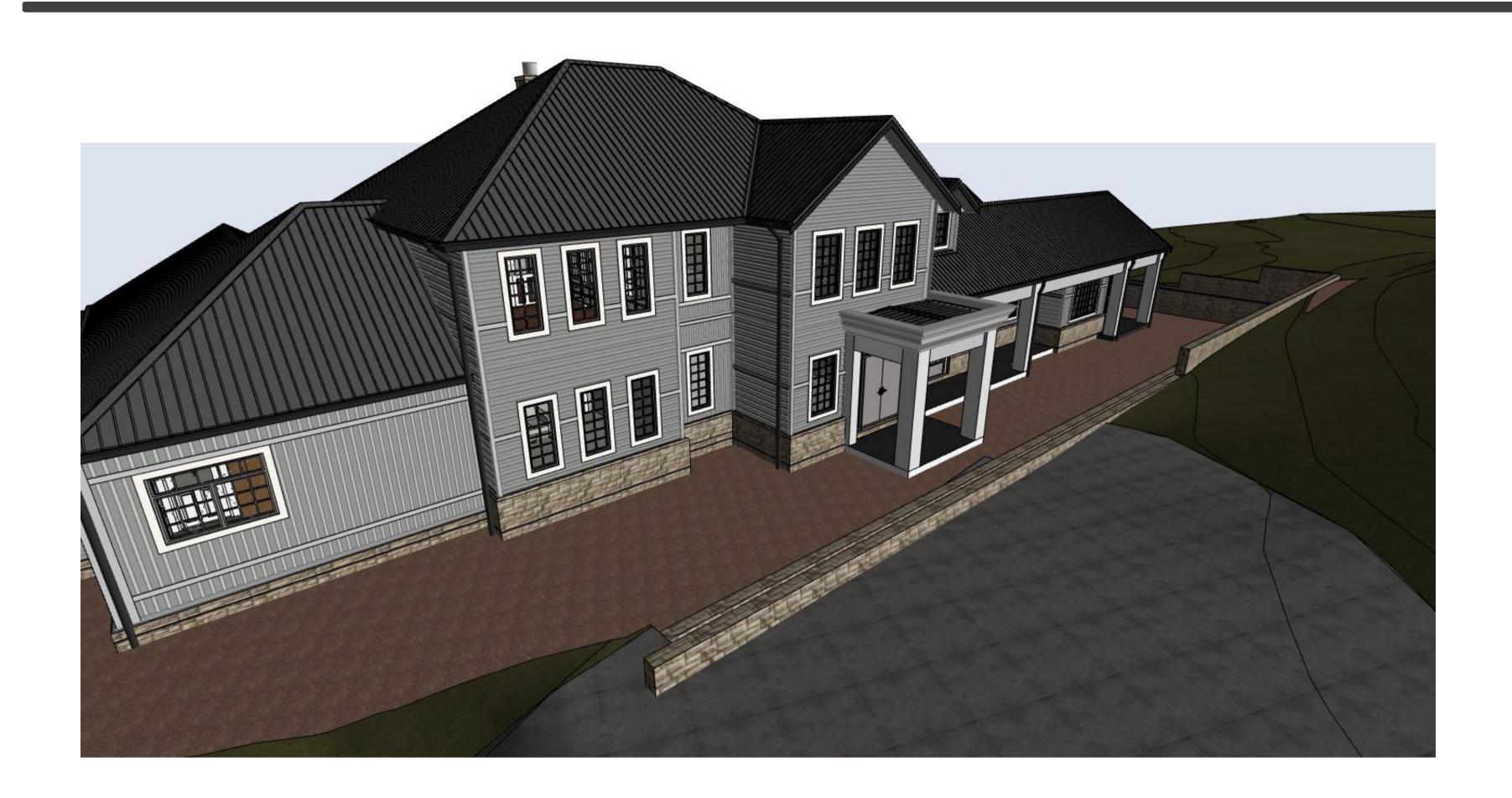
Stormwater to be discharged to Council's requirements and Australian Standards.

All services to be located and verified by the Builder with relevant authorities before any building work commences.

© copyright. this design and the associated documents are subject to copyright laws and may not be reproduced in any form without written consent from brett taylor & associates.

SHADOW DIAGRAMS Drawing Number A15

21st JUNE 3:00pm



brett taylor + associates

residential I industrial I commercial

po box 396 camden nsw 2570 31 meroo street, bomaderry, nsw 2541 australia e: info@btadesign.com.au t: +61 412 700 510

Levels shown are approximate unless accompanied by reduced levels.
Figured dimensions must be taken in preference to scaling.
All boundary clearances must be verified by the surveyor prior to the commencement of any building works.

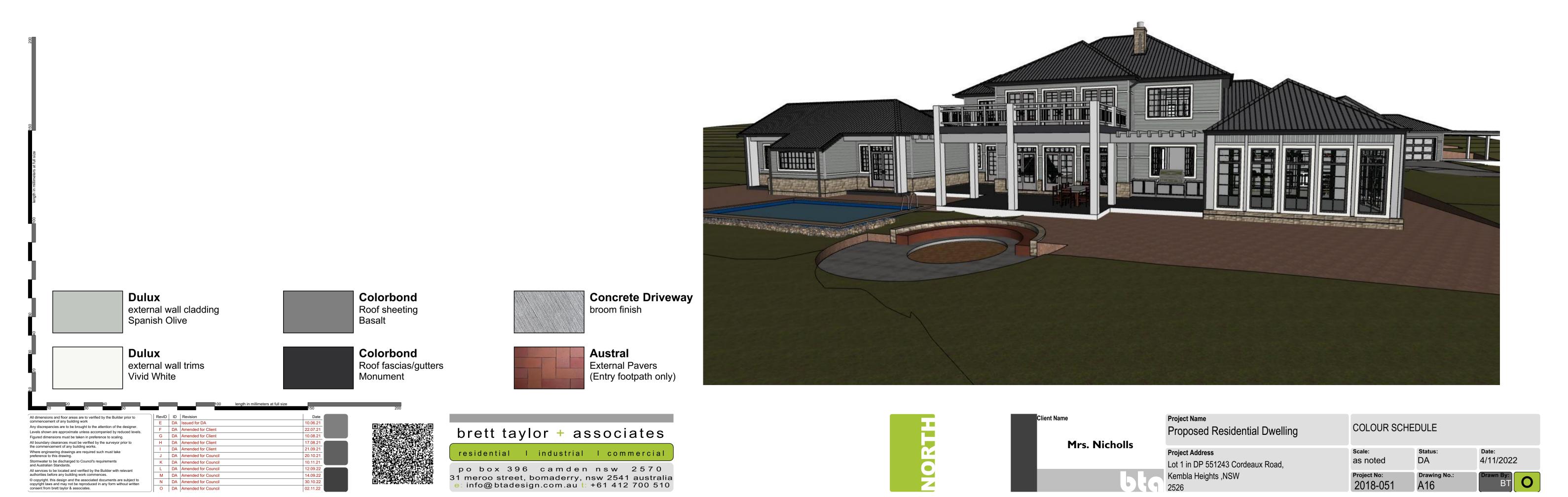
the commencement of any building works.

Where engineering drawings are required such must take preference to this drawing.

Stormwater to be discharged to Council's requirements and Australian Standards.

All services to be located and verified by the Builder with relevant authorities before any building work commences.

© copyright, this design and the associated documents are subject to copyright laws and may not be reproduced in any form without written consent from brett taylor & associates.



COLOUR SCHEDULE

as noted

Project No: 2018-051

DA

A16

4/11/2022

Proposed Residential Dwelling

Lot 1 in DP 551243 Cordeaux Road,

Project Address

Kembla Heights ,NSW

Mrs. Nicholls



CIVIL SPECIFICATION

GENERAL

- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS AND COUNCIL'S SPECIFICATIONS.
- 2. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS INCLUDING BUT NOT LIMITED TO ARCHITECTURAL. STRUCTURAL. HYDRAULIC AND LANDSCAPE.
- 2. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS. CONFIRM ALL DIMENSIONS FROM NOTED DIMENSIONS ON THE ARCHITECTURAL DRAWINGS
- 3. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE TO THE PRINCIPLE CERTIFYING AUTHORITY AND ENSURE ALL WORKS ARE INSPECTED TO ENABLE COMPLIANCE CERTIFICATES TO BE ISSUED.
- RESTORE ALL PAVED, COVERED, GRASSED AND LANDSCAPED AREAS TO THEIR ORIGINAL CONDITION ON COMPLETION OF WORKS
- ALL SURVEY SETOUT TO BE BY A REGISTERED SURVEYOR
- 6. VERIFY ALL DIMENSIONS AND EXISTING LEVELS AND CONDITIONS ON SITE PRIOR TO COMMENCING WORK.

SERVICES

- THE LOCATION OF EXISTING SERVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND MAY BE INCOMPLETE. THE LOCATIONS HAVE BEEN OBTAINED FROM DATA SUPPLIED BY THE RELEVANT AUTHORITIES.
- 2. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN CLEARANCES FROM THE RELEVANT SERVICE AUTHORITIES PRIOR TO WORKS COMMENCING.
- 3. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO WORKS COMMENCING.
- PROTECT AND MAINTAIN ALL EXISTING SERVICES TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS.
- 6. NO MECHANICAL EXCAVATIONS TO BE UNDERTAKEN OVER COMMUNICATION, GAS OR ELECTRICAL SERVICES. HAND EXCAVATION ONLY IN THESE AREAS
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED TO EXISTING SERVICES AS A RESULT OF THE CONTRACTORS WORK.

STORMWATER DRAINAGE

- STORMWATER DRAINAGE TO BE GENERALLY IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS AND COUNCIL'S SPECIFICATIONS.
- CONTRACTOR TO LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS. ANY DAMAGE TO SERVICES TO BE RECTIFIED AT THE CONTRACTORS EXPENSE.
- PIPES OF 300mm DIA. AND UNDER TO BE uPVC TO AS1254
- PIPES OF 375mm DIA. AND LARGER SHALL BE FRC OR CONCRETE CLASS 2 TO AS1342, RUBBER RING JOINTED UNO.
- PIPES UP TO 150mm DIA. SHALL BE LAID AT A MINIMUM GRADE OF 1%. PIPES 225mm DIA. AND OVER 0.5%.
- 6. BEDDING MATERIAL TO AS2032 OR AS3725 AS APPROPRIATE
- ALL LINES TO BE 100mm DIA. AT 1% MIN GRADE (UNO).

STORMWATER DRAINAGE

- ALL PITS LOCATED IN TRAFFICABLE AREAS (EG DRIVEWAYS) TO HAVE MEDIUM DUTY GRATED COVERS TO AS 3996.
- 9. MINIMUM PIPE COVER:

LOCATION	MINIMUM COVER
NOT SUBJECT TO VEHICLE LOADING	100mm SINGLE RESIDENTIAL 300mm ALL OTHER DEVELOPMENTS
SUBJECT TO VEHICLE LOADING	450mm WHERE NOT IN ROAD
UNDER A SEALED ROAD	600mm
UNSEALED ROAD	750mm
PAVED DRIVEWAY	100mm PLUS DEPTH OF CONCRETE

- 10. WHERE INSUFFICIENT COVER IS PROVIDED, THE PIPE SHALL BE COVERED AT LEAST 50mm THICK OVERLAY AND SHALL THEN BE PAVED WITH AT LEAST
 - 150mm REINFORCED CONCRETE WHERE SUBJECT TO HEAVY VEHICLE TRAFFIC.
 - 75mm THICKNESS OF BRICK OR 100MM OF CONCRETE PAVING WHERE SUBJECT TO LIGHT VEHICLE TRAFFIC.
 - 50mm THICK BRICK OR CONCRETE PAVING WHERE NOT SUBJECT TO VEHICLE TRAFFIC.
- 11. POLYMER STORMWATER PITS MAY BE USED, TO COUNCILS STANDARDS UP TO 600x600 IN SIZE.
- 12. PITS AND DOWNPIPE LOCATIONS AND LEVELS MAY BE VARIED TO SUIT SITE CONDITIONS AFTER CONSULTING ROC.
- 13 CONNECTION TO COLINCIL'S STORMWATER DRAINAGE NETWORK IS TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL SPECIFICATIONS.
- 14. SURFACE DRAINAGE SHALL BE INSTALLED TO AVOID COLLECTING AGAINST OR NEAR THE FOOTINGS AND SLAB.
- 15. THE BASE OF SERVICE TRENCHES UNDER SLAB ARE TO SLOPE AWAY FROM THE BUILDING AND BACKFILLED IN ACCORDANCE WITH AS2870.
- 16. DURING CONSTRUCTION, WATER RUN-OFF SHALL BE COLLECTED AND DIVERTED AWAY FROM BUILDING.
- 17. STORMWATER DRAINS TO BE INSTALLED WITH A SEPARATION BETWEEN OTHER PRIVATE SERVICES OF:
 - 100mm BETWEEN ELECTRICAL CABLE WHERE IDENTIFIED BY MARKER TAPE TO AS/NZS 2648.1 OR MECHANICALLY PROTECTED.
 - 600mm BETWEEN ELECTRICAL CABLES WHERE NOT MECHANICALLY
 - 600mm BETWEEN ELECTRICAL EARTHING ELECTRODE WHERE **ELECTRICAL SUPPLY DOES NOT EXCEED 1000V**
 - 100mm BETWEEN CONSUMER GAS PIPE WHERE INDICATED ALONG ITS LENGTH BY MARKER TAPE TO AS/NZS 2648.1
 - 600mm BETWEEN CONSUMER GAS PIPE WHERE NOT INDICATED OR MECHANICALLY PROTECTED
 - 100mm BETWEEN COMMUNICATIONS CABLE.
 - 100mm BETWEEN ANY OTHER SERVICE.

SEDIMENT AND EROSION CONTROL

- 1. THE SEDIMENT AND EROSION CONTROL PLAN PRESENTS CONCEPTS ONLY. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT & MANAGEMENT OF A DETAILED SCHEME MEETING COUNCILS DESIGN. OTHER REGULATORY AUTHORITY REQUIREMENTS AND MAKE GOOD PAYMENT OF ALL FEES.
- 2. THE CONTRACTOR SHALL INSTIGATE ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH STATUTORY REQUIREMENTS AND IN PARTICULAR THE 'BLUE BOOK' (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION), PRODUCED BY THE DEPARTMENT OF HOUSING AND COUNCILS POLICIES. THESE MEASURES ARE TO BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
- 3. THE CONTRACTOR SHALL INFORM ALL SUB CONTRACTORS OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.
- 4. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE SHALL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
 - 4.1. CONSTRUCT TEMPORARY STABILISED SITE ACCESS INCLUSIVE OF SHAKE DOWN / WASH PAD.
 - INSTALL ALL TEMPORARY SEDIMENT FENCES AND BARRIER FENCES. WHERE FENCES ADJACENT EACH OTHER, THE SEDIMENT FENCE CAN BE INCORPORATED INTO THE BARRIER
 - 4.3. INSTALL SEDIMENT CONTROL MEASURES AS OUTLINED ON THE APPROVED PLANS
- 5 UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF MINIMUM WORKABLE SIZE.
- 6. AT ALL TIMES AND IN PARTICULAR DURING WINDY AND DRY WEATHER, LARGE UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL ENSURING CONFORMITY TO REGULATORY AUTHORITY REQUIREMENTS.
- 7. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) SHALL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- 8. WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN STABILISED AND/OR ANY LIKELY SEDIMENT BEEN FILTERED OUT.
- 9. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED / REHABILITATED.
- 10. ALLOW FOR GRASS STABILISATION OF EXPOSED AREAS, OPEN CHANNELS AND ROCK BATTERS DURING ALL PHASES OF CONSTRUCTION.
- 11. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN REGULARLY AND AS REQUIRED, PARTICULARLY FOLLOWING RAIN EVENTS.

DRAWING SCHEDULE

C00 CIVIL SPECIFICATION

C01 CONCEPT STORMWATER MANAGEMENT PLAN

C02 STORMWATER DETAILS

SEDIMENT AND EROSION CONTROL

- 12. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER SHALL BE DISPOSED OF IN ACCORDANCE WITH REGULATORY AUTHORITY REQUIREMENTS. CONTRACTOR TO PAY ALL FEES AND PROVIDE EVIDENCE OF SAFE DISPOSAL.
- 13. IF A TEMPORARY SEDIMENT BASIN IS REQUIRED, ENSURE SAFE BATTER SLOPES IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. MAINTAIN ADEQUATE STORAGE VOLUME IN ACCORDANCE WITH PLANS. TEMPORARY PUMP 'CLEAN FLOCCULATED' WATER TO COUNCILS STORMWATER SYSTEM. ENSURE WHOLE SITE RUN-OFF IS DIRECTED TO TEMPORARY SEDIMENT BASIN.
- 14. DISTURBED AREAS ARE TO BE TOPSOILED AND REVEGETATED WITHIN 10 WORKING DAYS OF COMPLETION OF WORK.

3	RETAINING WALL DETAILS ADDED	DT	DT	15.11.22
2	FOR APPROVAL	DT	DT	11.11.22
1	FOR APPROVAL	DT	DT	20.06.22
REVISION	DESCRIPTION	DESIGN	DRAWN	DATE

T Myra TRISTRIUM MCNAMARA

RESIDENTIAL DWELLING 595 CORDEAUX RD. **KEMBLA HEIGHTS**

CLIENT

MRS NICHOLLS

DRAWING TITLE

CIVIL SPECIFICATION



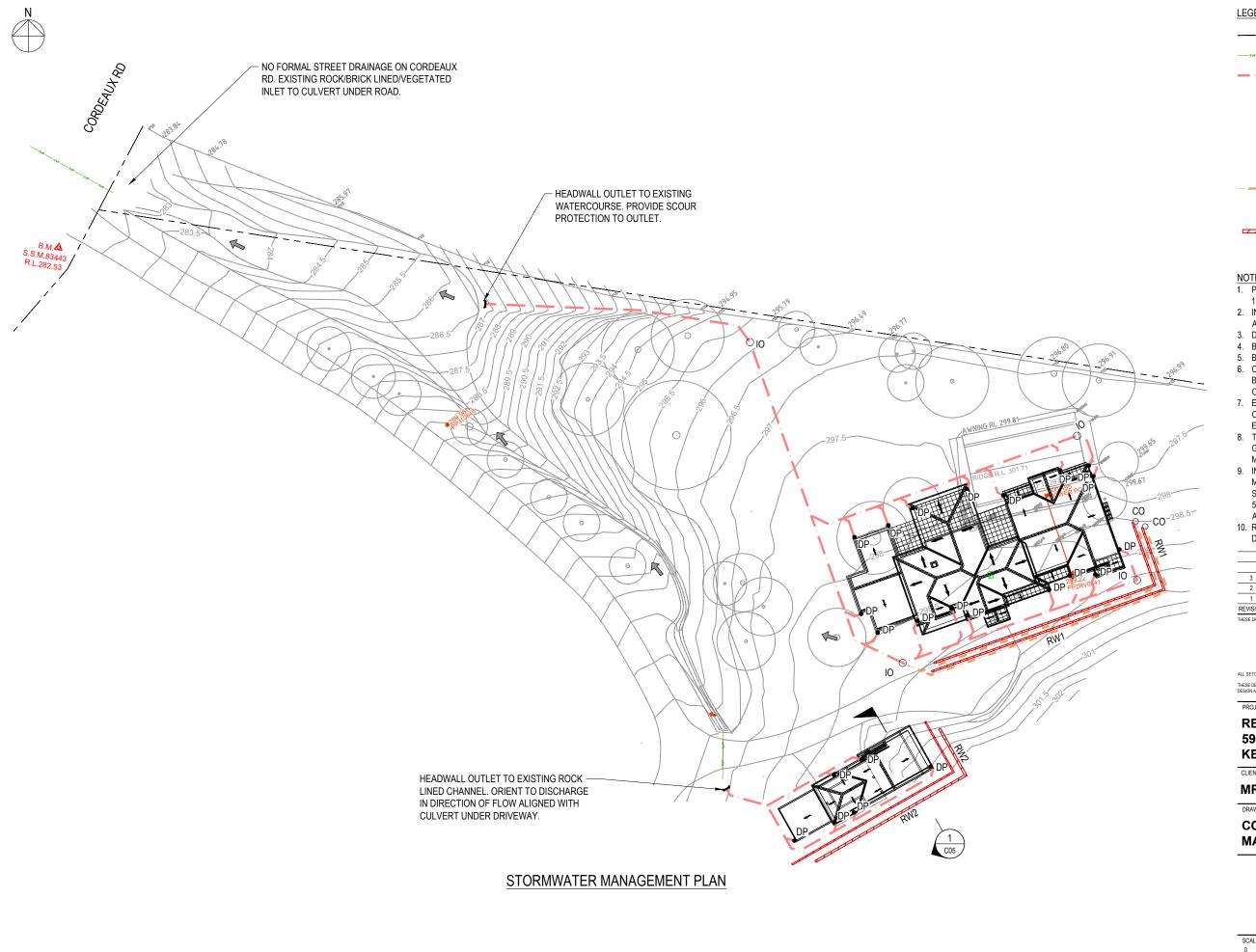
SCALE (A3)

NOT FOR CONSTRUCTION

JOB NUMBER 22123

C00

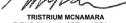
DRAWING NUMBER



LEGEND --- - BOUNDARY EXISTING STORMWATER PIPE NEW STORMWATER PIPE DOWNPIPE INSPECTION OPENING WITH 100Ø RISER FOR MAINTENANCE OVERLAND FLOW HEADWALL OUTLET NEW SUBSOIL DRAINAGE Осо SUBSOIL CLEANOUT RW? RETAINING WALL

- 1. PIPES TO BE Ø100 uPVC LAID AT GROUND SLOPE, 1% MINIMUM, CAPACITY = 8 L/s, U.N.O.
- 2. INSPECTION OPENINGS TO BE PROVIDED AS PER AS3500.3 SECTION 7.4
- 3. DOWNPIPES TO BE Ø100
- 4. BOX GUTTERS TO BE 300 WIDE x 150 DEEP U.N.O.
- 5. BOX GUTTER DOWNPIPES TO BE Ø100.
- 6. CONNECT DOWNPIPES TO WATER TANK AS PER BASIX REQUIREMENTS. PIPE OVERFLOW TO
- 7. EAVES GUTTERS TO HAVE MIN. EFFECTIVE AREA OF 6100mm² (LYSAGHT QUAD LO-FRONT OR EQUIVALENT)
- 8. THE EXTERNAL FINISHED SURFACE MUST BE GRADED TO SLOPE AWAY FROM ALL BUILDINGS A MINIMUM OF 50mm OVER THE FIRST 1m.
- 9. INTERNAL STRUCTURAL SLAB LEVELS TO BE A MINIMUM 150mm ABOVE EXTERNAL FINISHED SURFACE LEVELS. THIS MAY BE REDUCED TO 50mm FOR PAVED OR CONCRETE AREAS SLOPING AWAY FROM THE BUILDING.
- 10. RETAINING WALL EXTENTS APPROXIMATE, TO BE DETERMINED ON SITE.

·				
3	RETAINING WALL DETAILS ADDED	DT	DT	15.11.22
2	FOR APPROVAL	DT	DT	11.11.22
1	FOR APPROVAL	DT	DT	20.06.22
REVISION	DESCRIPTION	DESIGN	DRAWN	DATE



RESIDENTIAL DWELLING 595 CORDEAUX RD, **KEMBLA HEIGHTS**

CLIENT

MRS NICHOLLS

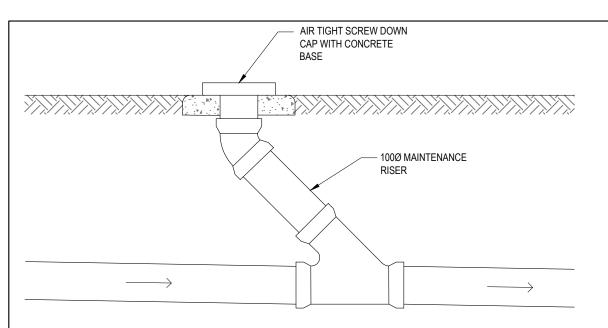
DRAWING TITLE

CONCEPT STORMWATER MANAGEMENT PLAN

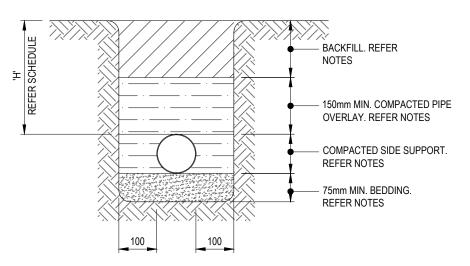


SCALE (A3) JOB NUMBER DRAWING NUMBER 22123 C01

NOT FOR CONSTRUCTION



INSPECTION OPENING (IO) DETAIL



PIPE TRENCH SECTION

BEDDING MATERIAL

PREFERRED BEDDING MATERIALS ARE LISTED IN AS 2032 AS FOLLOWS:

- a. SUITABLE SAND, FREE FROM ROCK OR OTHER HARD OR SHARP OBJECTS THAT WOULD BE RETAINED ON A 13.2mm SIEVE.
- b. CRUSHED ROCK OR GRAVEL OF APPROVED GRADING UP TO A MAXIMUM SIZE OF 14mm
- c. THE EXCAVATED MATERIAL MAY PROVIDE A SUITABLE PIPE UNDERLAY IF IT IS FREE FROM ROCK OR HARD MATTER AND BROKEN UP SO THAT IT CONTAINS NO SOIL LUMPS HAVING ANY DIMENSION GREATER THAN 75mm WHICH WOULD PREVENT ADEQUATE COMPACTION OF THE BEDDING.

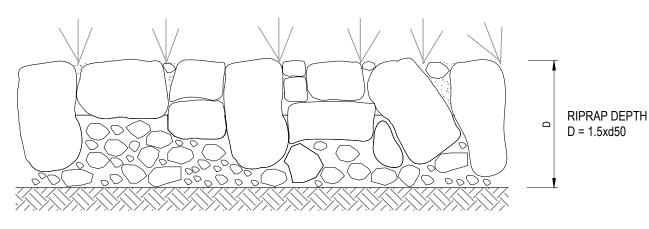
SIDE SUPPORT AND OVERLAY

UNLESS OTHERWISE SPECIFIED, THE PIPE SIDE SUPPORT AND PIPE OVERLAY MATERIAL USED SHOULD BE IDENTICAL WITH THE PIPE BEDDING MATERIAL

EXCAVATED MATERIAL FROM SITE SHOULD CONSTITUTE THE BACKFILL.

MINIMUM PIPE COVER							
LOADING COVER, H (mm)							
NO VEHICULAR LOADING							
WITHOUT PAVEMENT: - SINGLE DWELLINGS - OTHER THAN SINGLE DWELLINGS	100 300						
WITH PAVEMENT	50 (BELOW UNDERSIDE OF PAVEMENT)						
VEHICULAR LOADING							
WITHOUT PAVEMENT 450							
WITH PAVEMENT 100 (BELOW UNDERSIDE OF PAVEMENT)							

PIPE BEDDING DETAIL



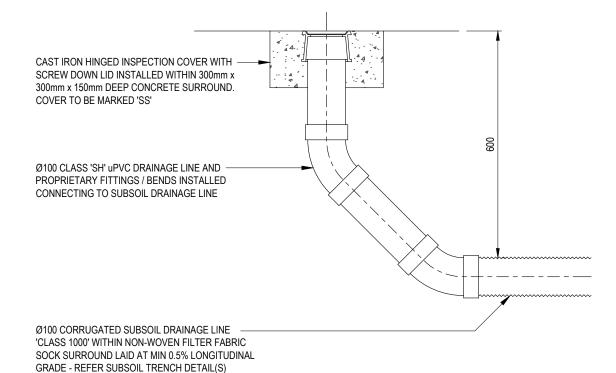
RIPRAP DETAIL

- ALL RIPRAP MUST CONSIST OF HARD, DURABLE ANGULAR RUN-OF-QUARRY ROCK; RESISTANT TO WEATHERING & WATER ACTION; FREE FROM OVERBURDEN, SPOIL, SHALE & ORGANIC MATERIAL; & SHALL MEET THE GRADATION REQUIREMENTS SPECIFIED.
- ROUNDED STONES/BOULDERS WILL NOT BE ACCEPTABLE.
- SHALE AND ROCK WITH SHALE SEAMS WILL NOT BE ACCEPTABLE.
- ROCKS ARE TO BE PLACED OVER A 200mm LAYER OF ANGULAR COBBLES D₀=140mm.
- ALL ROCK AND COBBLES TO BE PACKED WITH TOPSOIL. GAPS IN RIPRAP TO BE PLANTED WITH SUITABLE NATIVE GRASSES/SEDGES
- RIPRAP SHALL BE PLACED ON THE PREPARED SLOPE IN A MANNER THAT WILL PRODUCE A REASONABLY WELL GRADED MASS OF STONE WITH THE MINIMUM PRACTICAL PERCENTAGE OF VOIDS.
- LARGER STONES SHALL BE WELL DISTRIBUTED & THE ENTIRE MASS OF STONE SHALL CONFORM TO THE GRADATION SPECIFIED BY THE ENGINEERING PLANS.
- THE MINIMUM THICKNESS OF THE RIPRAP LAYER IS TO BE 1.5 TIMES THE d50 ROCK SIZE & NOT BE LESS THAN 300mm FOR PRACTICAL PLACEMENT.
- THE MINIMUM DENSITY OF STONE USED SHALL NOT BE LESS THAN 2200 kg/cu.m. TYPICAL ROCK WEIGHT RANGES FOR RIPRAP ARE:

M50 - 60kg (NOM 300MD)

M15 - 25kg

M100 - 120kg



SUBSOIL DRAINAGE CLEAROUT 'CO'

CLEAROUT TO BE INSTALLED AT UPSTREAM POINTS ALONG SUBSOIL DRAINAGE LINES AT MAX 30m CENTRES AND DISCHARGING TO DRAINAGE STRUCTURES AT MAX 60m CENTRES.

RETAINING WALL DETAILS ADDED	DT	DT	15.11.2
FOR APPROVAL	DT	DT	11.11.2
FOR APPROVAL	DT	DT	20.06.2
DESCRIPTION	DESIGN	DRAWN	DATE
	FOR APPROVAL FOR APPROVAL	FOR APPROVAL DT FOR APPROVAL DT	FOR APPROVAL DT DT FOR APPROVAL DT DT



RESIDENTIAL DWELLING 595 CORDEAUX RD, **KEMBLA HEIGHTS**

CLIENT

MRS NICHOLLS

DRAWING TITLE

STORMWATER DETAILS

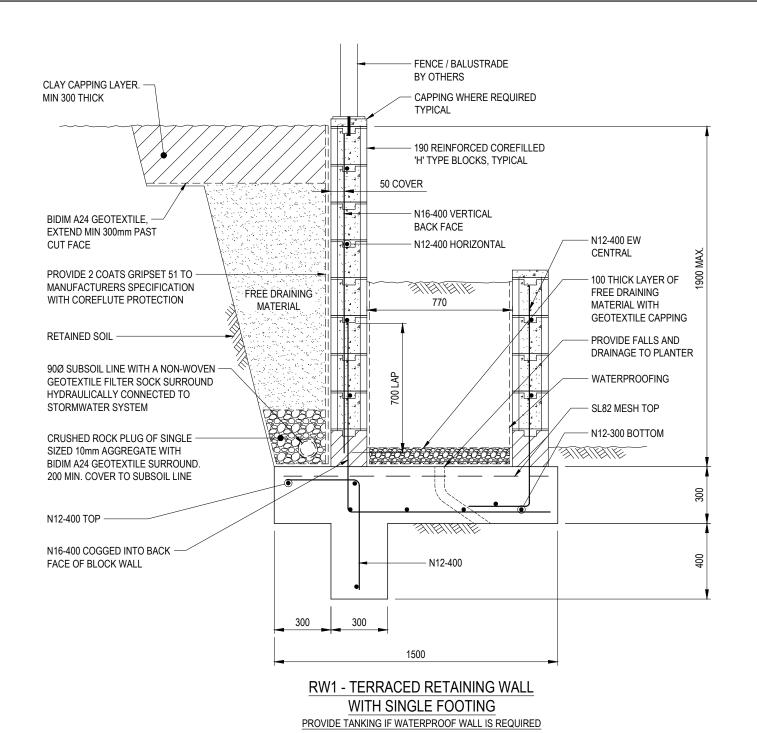


SCALE (A3)

JOB NUMBER 22123

RAWING NUMBER C02

NOT FOR CONSTRUCTION



RETAINING WALL SCHEDULE							
HEIGHT 'H' 'W' 'K' 'V' BARS							
1200 700 300 N12-400							
1400 900 300 N12-400							
1600 1100 300 N12-400							
1800	1300	400	N16-400				
2000 1500 500 N16-400							
	ذ = 30° & 100kPa	BEARING					

3	RETAINING WALL DETAILS ADDED	DT	DT	15.11.22
2	FOR APPROVAL	DT	DT	11.11.22
1	FOR APPROVAL	DT	DT	20.06.22
REVISION	DESCRIPTION	DESIGN	DRAWN	DATE

7 myra TRISTRIUM MCNAMARA

RESIDENTIAL DWELLING 595 CORDEAUX RD, **KEMBLA HEIGHTS**

CLIENT

MRS NICHOLLS

DRAWING TITLE

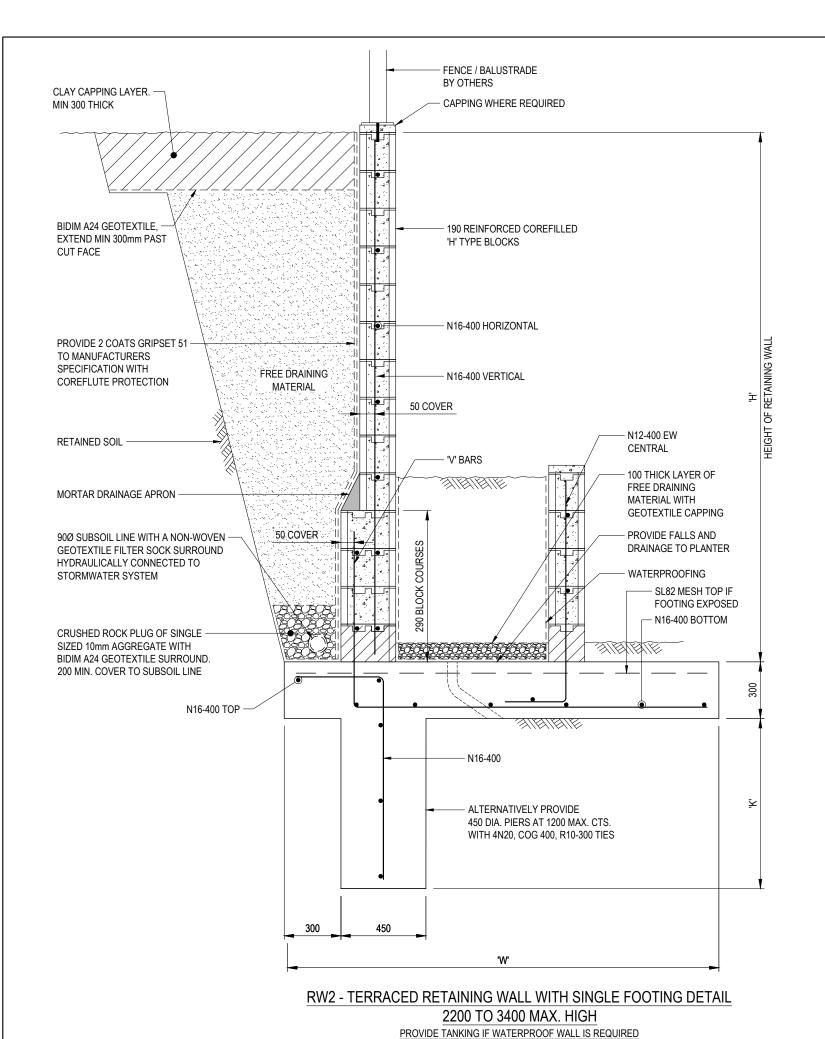
RETAINING WALL DETAILS SHEET 1





JOB NUMBER 22123

C03



RETAINING WALL SCHEDULE									
HEIGHT 'H'	'V' BARS								
2200	4	1700	600	N16-400					
2400	4	1900	700	N16-400					
2600	4	2100	800	N16-400					
2800	4	2300	900	N20-400					
3000	5	2500	1000	N20-200					
3200	5	2700	1100	N20-200					
3400	5	2900	1200	N20-200					
	ذ = 30° & 100kPa BEARING								

NOTES:

PLANTER WALL NOT REQUIRED STRUCTURALLY. INCLUSION OF PLANTER WALL AT OWNER'S DISCRETION.

3	RETAINING WALL DETAILS ADDED	DT	DT	15.11.22
2	FOR APPROVAL	DT	DT	11.11.22
1	FOR APPROVAL	DT	DT	20.06.22
REVISION	DESCRIPTION	DESIGN	DRAWN	DATE

THESE DRAWINGS WERE PREPARED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS STRUCTURAL / CIVIL PROVISIONS OF THE BUILDING CODE OF AUSTRALIA.

TRISTRIUM MCNAMARA

B.ENG (Hons 1), CPEng, MIEAust

ALL SETOUT TO ARCHITECT'S DRAWINGS, DIMENSIONS TO BE VERHIELD WITH THE ARCHITECT AND O SITE BEFORE PREPARING SHOP PRANINGS OR COMMERCING WORK.

THESE DESIGNS, PLANS, SPECIFICATIONS & COPYRIGHT THEREIN ARE THE PROPERTY OF ROC ENGINEERIN DESIGN AND MUST NOT BE USED, REPRODUCED, OR CONTINUE AND GESIGN.

THE STATE OF TH

PROJECT

RESIDENTIAL DWELLING 595 CORDEAUX RD, KEMBLA HEIGHTS

CLIENT

MRS NICHOLLS

DRAWING TITLE

RETAINING WALL DETAILS SHEET 2



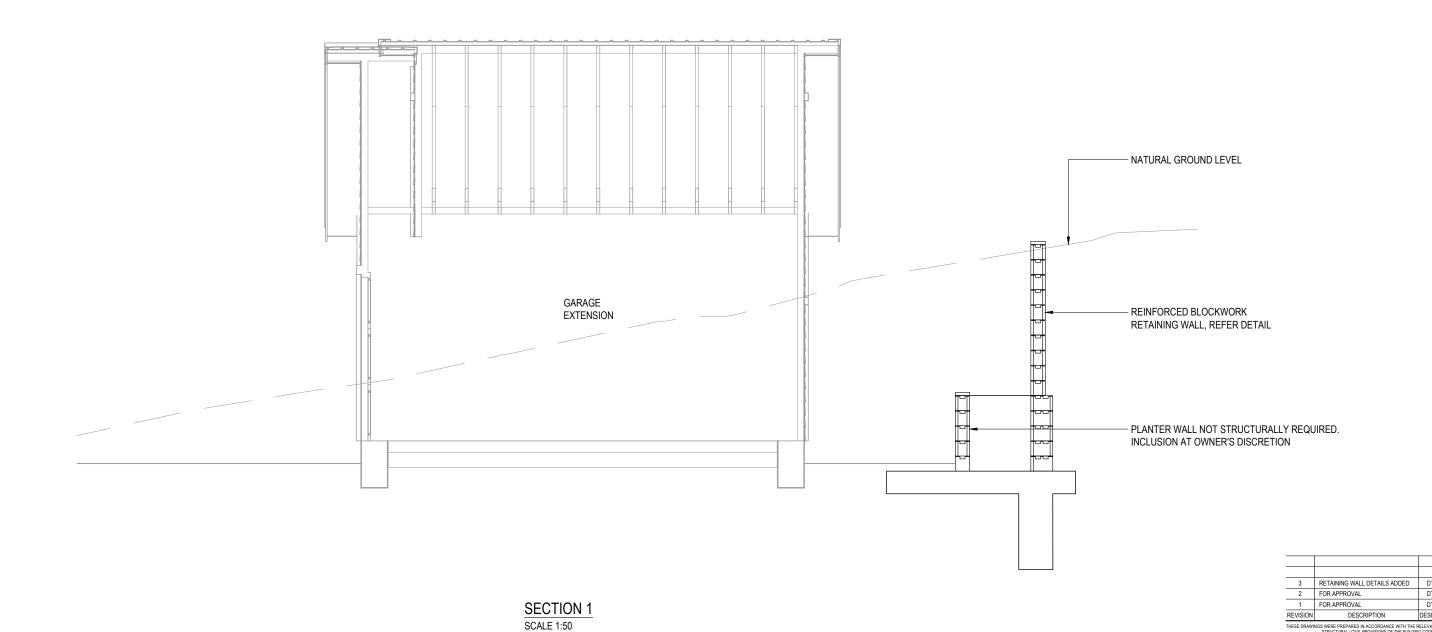
Ph (02) 4244 4017
P.O. Box 216 Wollongong, NSW, 2520
info@rocengineering.com.au ABN 70 610 369 910

SCALE (A3)
0 100 200 300 400 600 800 1000mr
1:20

JOB NUMBER **22123**

22123

DRAWING NUMBER C04



3	RETAINING WALL DETAILS ADDED	DT	DT	15.11.22
2	FOR APPROVAL	DT	DT	11.11.22
1	FOR APPROVAL	DT	DT	20.06.22
REVISION	DESCRIPTION	DESIGN	DRAWN	DATE

RESIDENTIAL DWELLING 595 CORDEAUX RD, **KEMBLA HEIGHTS**

CLIENT

MRS NICHOLLS

DRAWING TITLE

22123

RETAINING WALL SECTIONS



C05





CIVIL SPECIFICATION

GENERAL

- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS AND COUNCIL'S SPECIFICATIONS.
- 2. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS INCLUDING BUT NOT LIMITED TO ARCHITECTURAL. STRUCTURAL. HYDRAULIC AND LANDSCAPE.
- 2. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS. CONFIRM ALL DIMENSIONS FROM NOTED DIMENSIONS ON THE ARCHITECTURAL DRAWINGS
- 3. THE CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE TO THE PRINCIPLE CERTIFYING AUTHORITY AND ENSURE ALL WORKS ARE INSPECTED TO ENABLE COMPLIANCE CERTIFICATES TO BE ISSUED.
- RESTORE ALL PAVED, COVERED, GRASSED AND LANDSCAPED AREAS TO THEIR ORIGINAL CONDITION ON COMPLETION OF WORKS
- ALL SURVEY SETOUT TO BE BY A REGISTERED SURVEYOR
- 6. VERIFY ALL DIMENSIONS AND EXISTING LEVELS AND CONDITIONS ON SITE PRIOR TO COMMENCING WORK.

SERVICES

- THE LOCATION OF EXISTING SERVICES SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND MAY BE INCOMPLETE. THE LOCATIONS HAVE BEEN OBTAINED FROM DATA SUPPLIED BY THE RELEVANT AUTHORITIES.
- 2. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN CLEARANCES FROM THE RELEVANT SERVICE AUTHORITIES PRIOR TO WORKS COMMENCING.
- 3. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO WORKS COMMENCING.
- PROTECT AND MAINTAIN ALL EXISTING SERVICES TO BE RETAINED IN THE VICINITY OF THE PROPOSED WORKS.
- 6. NO MECHANICAL EXCAVATIONS TO BE UNDERTAKEN OVER COMMUNICATION, GAS OR ELECTRICAL SERVICES. HAND EXCAVATION ONLY IN THESE AREAS
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE CAUSED TO EXISTING SERVICES AS A RESULT OF THE CONTRACTORS WORK.

STORMWATER DRAINAGE

- STORMWATER DRAINAGE TO BE GENERALLY IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS AND COUNCIL'S SPECIFICATIONS.
- CONTRACTOR TO LOCATE ALL EXISTING SERVICES PRIOR TO COMMENCEMENT OF WORKS. ANY DAMAGE TO SERVICES TO BE RECTIFIED AT THE CONTRACTORS EXPENSE.
- PIPES OF 300mm DIA. AND UNDER TO BE uPVC TO AS1254
- PIPES OF 375mm DIA. AND LARGER SHALL BE FRC OR CONCRETE CLASS 2 TO AS1342, RUBBER RING JOINTED UNO.
- PIPES UP TO 150mm DIA. SHALL BE LAID AT A MINIMUM GRADE OF 1%. PIPES 225mm DIA, AND OVER 0.5%.
- 6. BEDDING MATERIAL TO AS2032 OR AS3725 AS APPROPRIATE
- 7. ALL LINES TO BE 100mm DIA. AT 1% MIN GRADE (UNO).

STORMWATER DRAINAGE

- ALL PITS LOCATED IN TRAFFICABLE AREAS (EG DRIVEWAYS) TO HAVE MEDIUM DUTY GRATED COVERS TO AS 3996.
- 9. MINIMUM PIPE COVER:

LOCATION	MINIMUM COVER
NOT SUBJECT TO VEHICLE LOADING	100mm SINGLE RESIDENTIAL 300mm ALL OTHER DEVELOPMENTS
SUBJECT TO VEHICLE LOADING	450mm WHERE NOT IN ROAD
UNDER A SEALED ROAD	600mm
UNSEALED ROAD	750mm
PAVED DRIVEWAY	100mm PLUS DEPTH OF CONCRETE

- 10. WHERE INSUFFICIENT COVER IS PROVIDED, THE PIPE SHALL BE COVERED AT LEAST 50mm THICK OVERLAY AND SHALL THEN BE PAVED WITH AT LEAST
 - 150mm REINFORCED CONCRETE WHERE SUBJECT TO HEAVY VEHICLE TRAFFIC.
 - 75mm THICKNESS OF BRICK OR 100MM OF CONCRETE PAVING WHERE SUBJECT TO LIGHT VEHICLE TRAFFIC.
 - 50mm THICK BRICK OR CONCRETE PAVING WHERE NOT SUBJECT TO VEHICLE TRAFFIC.
- 11. POLYMER STORMWATER PITS MAY BE USED, TO COUNCILS STANDARDS UP TO 600x600 IN SIZE.
- 12. PITS AND DOWNPIPE LOCATIONS AND LEVELS MAY BE VARIED TO SUIT SITE CONDITIONS AFTER CONSULTING ROC.
- 13. CONNECTION TO COUNCIL'S STORMWATER DRAINAGE NETWORK IS TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL SPECIFICATIONS.
- 14. SURFACE DRAINAGE SHALL BE INSTALLED TO AVOID COLLECTING AGAINST OR NEAR THE FOOTINGS AND SLAB.
- 15. THE BASE OF SERVICE TRENCHES UNDER SLAB ARE TO SLOPE AWAY FROM THE BUILDING AND BACKFILLED IN ACCORDANCE WITH AS2870.
- 16. DURING CONSTRUCTION, WATER RUN-OFF SHALL BE COLLECTED AND DIVERTED AWAY FROM BUILDING.
- 17. STORMWATER DRAINS TO BE INSTALLED WITH A SEPARATION BETWEEN OTHER PRIVATE SERVICES OF:
 - 100mm BETWEEN ELECTRICAL CABLE WHERE IDENTIFIED BY MARKER TAPE TO AS/NZS 2648.1 OR MECHANICALLY PROTECTED.
 - 600mm BETWEEN ELECTRICAL CABLES WHERE NOT MECHANICALLY
 - 600mm BETWEEN ELECTRICAL EARTHING ELECTRODE WHERE **ELECTRICAL SUPPLY DOES NOT EXCEED 1000V**
 - 100mm BETWEEN CONSUMER GAS PIPE WHERE INDICATED ALONG ITS LENGTH BY MARKER TAPE TO AS/NZS 2648.1
 - 600mm BETWEEN CONSUMER GAS PIPE WHERE NOT INDICATED OR MECHANICALLY PROTECTED
 - 100mm BETWEEN COMMUNICATIONS CABLE.
 - 100mm BETWEEN ANY OTHER SERVICE.

SEDIMENT AND EROSION CONTROL

- 1. THE SEDIMENT AND EROSION CONTROL PLAN PRESENTS CONCEPTS ONLY. THE CONTRACTOR SHALL AT ALL TIMES BE RESPONSIBLE FOR THE ESTABLISHMENT & MANAGEMENT OF A DETAILED SCHEME MEETING COUNCILS DESIGN. OTHER REGULATORY AUTHORITY REQUIREMENTS AND MAKE GOOD PAYMENT OF ALL FEES.
- 2. THE CONTRACTOR SHALL INSTIGATE ALL SEDIMENT AND EROSION CONTROL MEASURES IN ACCORDANCE WITH STATUTORY REQUIREMENTS AND IN PARTICULAR THE 'BLUE BOOK' (MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION), PRODUCED BY THE DEPARTMENT OF HOUSING AND COUNCILS POLICIES. THESE MEASURES ARE TO BE INSPECTED AND MAINTAINED ON A DAILY BASIS.
- 3. THE CONTRACTOR SHALL INFORM ALL SUB CONTRACTORS OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS.
- 4. WHERE PRACTICAL, THE SOIL EROSION HAZARD ON THE SITE SHALL BE KEPT AS LOW AS POSSIBLE. TO THIS END, WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:
 - 4.1. CONSTRUCT TEMPORARY STABILISED SITE ACCESS INCLUSIVE OF SHAKE DOWN / WASH PAD.
 - INSTALL ALL TEMPORARY SEDIMENT FENCES AND BARRIER FENCES. WHERE FENCES ADJACENT EACH OTHER, THE SEDIMENT FENCE CAN BE INCORPORATED INTO THE BARRIER
 - 4.3. INSTALL SEDIMENT CONTROL MEASURES AS OUTLINED ON THE APPROVED PLANS
- 5 UNDERTAKE SITE DEVELOPMENT WORKS SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF MINIMUM WORKABLE SIZE.
- 6. AT ALL TIMES AND IN PARTICULAR DURING WINDY AND DRY WEATHER, LARGE UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL ENSURING CONFORMITY TO REGULATORY AUTHORITY REQUIREMENTS
- 7. ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) SHALL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- 8. WATER SHALL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN STABILISED AND/OR ANY LIKELY SEDIMENT BEEN FILTERED OUT.
- 9. TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES SHALL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE STABILISED / REHABILITATED.
- 10. ALLOW FOR GRASS STABILISATION OF EXPOSED AREAS, OPEN CHANNELS AND ROCK BATTERS DURING ALL PHASES OF CONSTRUCTION.
- 11. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED TO ENSURE THAT THEY OPERATE EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN REGULARLY AND AS REQUIRED, PARTICULARLY FOLLOWING RAIN EVENTS.

DRAWING SCHEDULE C00 CIVIL SPECIFICATION

C01 CONCEPT STORMWATER MANAGEMENT PLAN

C02 STORMWATER DETAILS

SEDIMENT AND EROSION CONTROL

- 12. RECEPTORS FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHT-WEIGHT WASTE MATERIALS AND LITTER SHALL BE DISPOSED OF IN ACCORDANCE WITH REGULATORY AUTHORITY REQUIREMENTS. CONTRACTOR TO PAY ALL FEES AND PROVIDE EVIDENCE OF SAFE DISPOSAL.
- 13. IF A TEMPORARY SEDIMENT BASIN IS REQUIRED, ENSURE SAFE BATTER SLOPES IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. MAINTAIN ADEQUATE STORAGE VOLUME IN ACCORDANCE WITH PLANS. TEMPORARY PUMP 'CLEAN FLOCCULATED' WATER TO COUNCILS STORMWATER SYSTEM. ENSURE WHOLE SITE RUN-OFF IS DIRECTED TO TEMPORARY SEDIMENT BASIN.
- 14. DISTURBED AREAS ARE TO BE TOPSOILED AND REVEGETATED WITHIN 10 WORKING DAYS OF COMPLETION OF WORK.

2	FOR APPROVAL	DT	DT	11.11.22
1	FOR APPROVAL	DT	DT	20.06.22
REVISION	DESCRIPTION	DESIGN	DRAWN	DATE

TMMM TRISTRIUM MCNAMARA

RESIDENTIAL DWELLING 595 CORDEAUX RD. **KEMBLA HEIGHTS**

CLIENT

MRS NICHOLLS

DRAWING TITLE

CIVIL SPECIFICATION



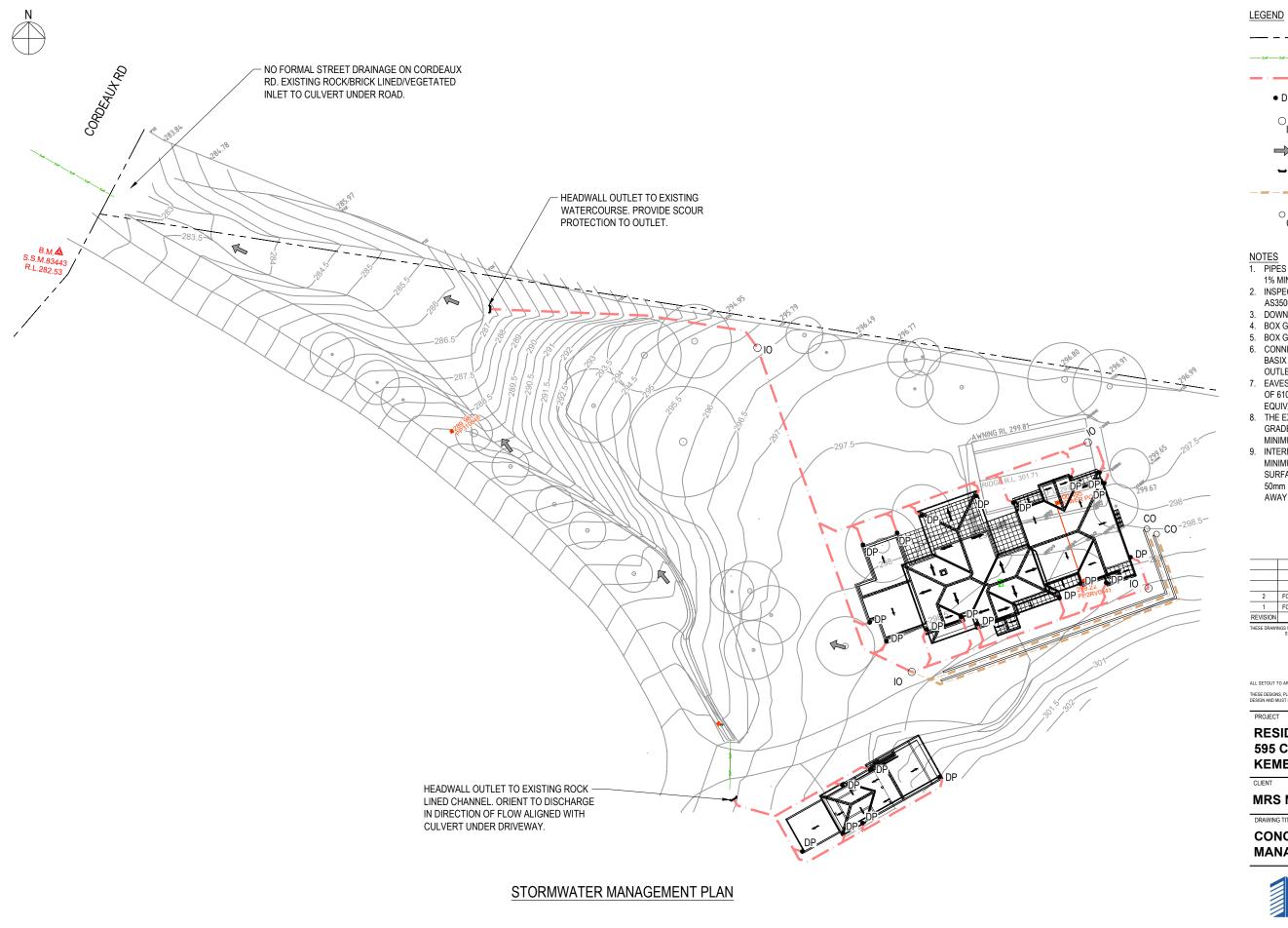
SCALE (A3)

JOB NUMBER NOT FOR CONSTRUCTION

DRAWING NUMBER

22123

C00



— — — BOUNDARY EXISTING STORMWATER PIPE

NEW STORMWATER PIPE DOWNPIPE

INSPECTION OPENING WITH 100Ø RISER FOR MAINTENANCE

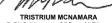
OVERLAND FLOW HEADWALL OUTLET

NEW SUBSOIL DRAINAGE

Осо SUBSOIL CLEANOUT

- 1. PIPES TO BE Ø100 uPVC LAID AT GROUND SLOPE, 1% MINIMUM, CAPACITY = 8 L/s, U.N.O.
- 2. INSPECTION OPENINGS TO BE PROVIDED AS PER AS3500.3 SECTION 7.4
- 3. DOWNPIPES TO BE Ø100
- 4. BOX GUTTERS TO BE 300 WIDE x 150 DEEP U.N.O.
- 5. BOX GUTTER DOWNPIPES TO BE Ø100.
- 6. CONNECT DOWNPIPES TO WATER TANK AS PER BASIX REQUIREMENTS. PIPE OVERFLOW TO
- 7. EAVES GUTTERS TO HAVE MIN. EFFECTIVE AREA OF 6100mm² (LYSAGHT QUAD LO-FRONT OR EQUIVALENT)
- 8. THE EXTERNAL FINISHED SURFACE MUST BE GRADED TO SLOPE AWAY FROM ALL BUILDINGS A MINIMUM OF 50mm OVER THE FIRST 1m.
- 9. INTERNAL STRUCTURAL SLAB LEVELS TO BE A MINIMUM 150mm ABOVE EXTERNAL FINISHED SURFACE LEVELS. THIS MAY BE REDUCED TO 50mm FOR PAVED OR CONCRETE AREAS SLOPING AWAY FROM THE BUILDING.

2	FOR APPROVAL	DT	DT	11.11.22
1	FOR APPROVAL	DT	DT	20.06.22
REVISION	DESCRIPTION	DESIGN	DRAWN	DATE



RESIDENTIAL DWELLING 595 CORDEAUX RD, **KEMBLA HEIGHTS**

CLIENT

MRS NICHOLLS

DRAWING TITLE

CONCEPT STORMWATER MANAGEMENT PLAN

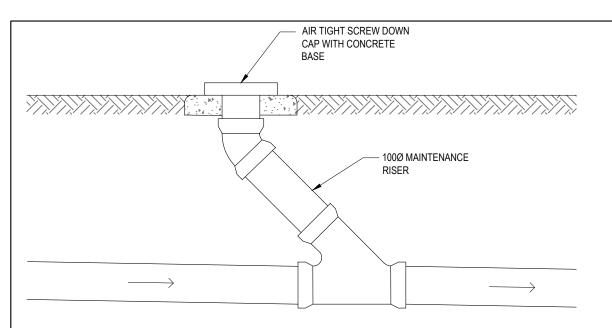


SCALE (A3)

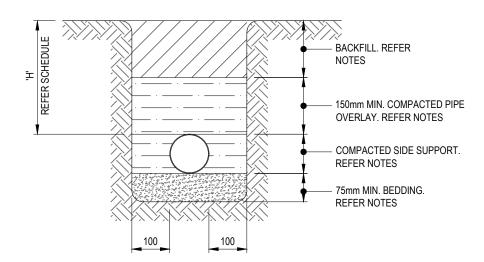
JOB NUMBER 22123

C01

NOT FOR CONSTRUCTION



INSPECTION OPENING (IO) DETAIL



PIPE TRENCH SECTION

NOTES

BEDDING MATERIAL

PREFERRED BEDDING MATERIALS ARE LISTED IN AS 2032 AS FOLLOWS:

- SUITABLE SAND, FREE FROM ROCK OR OTHER HARD OR SHARP OBJECTS THAT WOULD BE RETAINED ON A 13.2mm SIEVE.
- b. CRUSHED ROCK OR GRAVEL OF APPROVED GRADING UP TO A MAXIMUM SIZE OF 14mm
- c. THE EXCAVATED MATERIAL MAY PROVIDE A SUITABLE PIPE UNDERLAY IF IT IS FREE FROM ROCK OR HARD MATTER AND BROKEN UP SO THAT IT CONTAINS NO SOIL LUMPS HAVING ANY DIMENSION GREATER THAN 75mm WHICH WOULD PREVENT ADEQUATE COMPACTION OF THE BEDDING.

SIDE SUPPORT AND OVERLAY

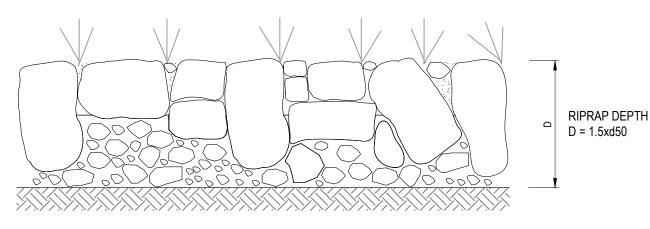
UNLESS OTHERWISE SPECIFIED, THE PIPE SIDE SUPPORT AND PIPE OVERLAY MATERIAL USED SHOULD BE IDENTICAL WITH THE PIPE BEDDING MATERIAL.

BACKFILL

EXCAVATED MATERIAL FROM SITE SHOULD CONSTITUTE THE BACKFILL.

MINIMUM P	IPE COVER
LOADING	COVER, H (mm)
NO VEHICULAR LOADING	
WITHOUT PAVEMENT: - SINGLE DWELLINGS - OTHER THAN SINGLE DWELLINGS	100 300
WITH PAVEMENT	50 (BELOW UNDERSIDE OF PAVEMENT)
VEHICULAR LOADING	
WITHOUT PAVEMENT	450
WITH PAVEMENT	100 (BELOW UNDERSIDE OF PAVEMENT)

PIPE BEDDING DETAIL



RIPRAP DETAIL

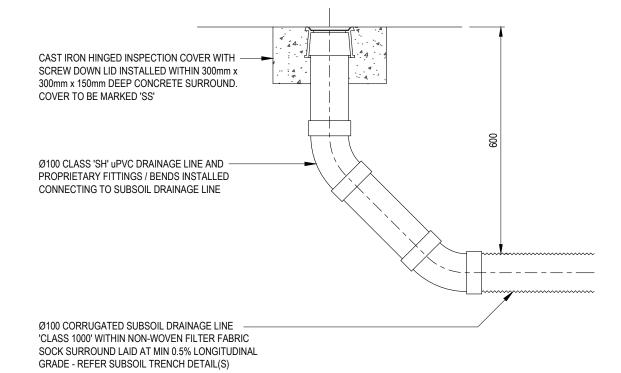
NOTES

- ALL RIPRAP MUST CONSIST OF HARD, DURABLE ANGULAR RUN-OF-QUARRY ROCK; RESISTANT TO WEATHERING & WATER ACTION; FREE FROM OVERBURDEN, SPOIL, SHALE & ORGANIC MATERIAL; & SHALL MEET THE GRADATION REQUIREMENTS SPECIFIED.
- 2. ROUNDED STONES/BOULDERS WILL NOT BE ACCEPTABLE.
- SHALE AND ROCK WITH SHALE SEAMS WILL NOT BE ACCEPTABLE.
- 4. ROCKS ARE TO BE PLACED OVER A 200mm LAYER OF ANGULAR COBBLES D₅0=140mm.
- ALL ROCK AND COBBLES TO BE PACKED WITH TOPSOIL. GAPS IN RIPRAP TO BE PLANTED WITH SUITABLE NATIVE GRASSES/SEDGES.
- RIPRAP SHALL BE PLACED ON THE PREPARED SLOPE IN A MANNER THAT WILL PRODUCE A REASONABLY WELL GRADED MASS OF STONE WITH THE MINIMUM PRACTICAL PERCENTAGE OF VOIDS.
- LARGER STONES SHALL BE WELL DISTRIBUTED & THE ENTIRE MASS OF STONE SHALL CONFORM TO THE GRADATION SPECIFIED BY THE ENGINEERING PLANS.
- 8. THE MINIMUM THICKNESS OF THE RIPRAP LAYER IS TO BE 1.5 TIMES THE d50 ROCK SIZE & NOT BE LESS THAN 300mm FOR PRACTICAL PLACEMENT.
- 9. THE MINIMUM DENSITY OF STONE USED SHALL NOT BE LESS THAN 2200 kg/cu.m. TYPICAL ROCK WEIGHT RANGES FOR RIPRAP ARE:

M50 - 60kg (NOM 300MD)

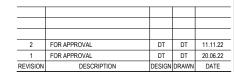
M15 - 25kg

M100 - 120kg



SUBSOIL DRAINAGE CLEAROUT 'CO'

CLEAROUT TO BE INSTALLED AT UPSTREAM POINTS ALONG SUBSOIL DRAINAGE LINES AT MAX 30m CENTRES AND DISCHARGING TO DRAINAGE STRUCTURES AT MAX 60m CENTRES.



HESE DRAWINGS WERE PREPARED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS AI STRUCTURAL / CIVIL PROVISIONS OF THE BUILDING CODE OF AUSTRALIA.



ALL SETOUT TO ARCHITECTS DRAWINGS, DIMENSIONS TO BE VERIFIED WITH THE ARCHITECT AND ON SITE BEFORE PREPARING SHOP DRAWINGS OR COMMENCING WORK. THESE DESIGNS, PLANS, SPECIFICATIONS & COPPRIGHT THEREN ARE THE PROPERTY OF ROC ENGINEERING DESIGN AND MUST NOT BE USED, DEPRODUCED, OR COPIED, WHOLLY OR IN PART WITHOUT THE WRITTEN

PROJECT

RESIDENTIAL DWELLING 595 CORDEAUX RD, KEMBLA HEIGHTS

CLIENT

MRS NICHOLLS

DRAWING TITLE

STORMWATER DETAILS

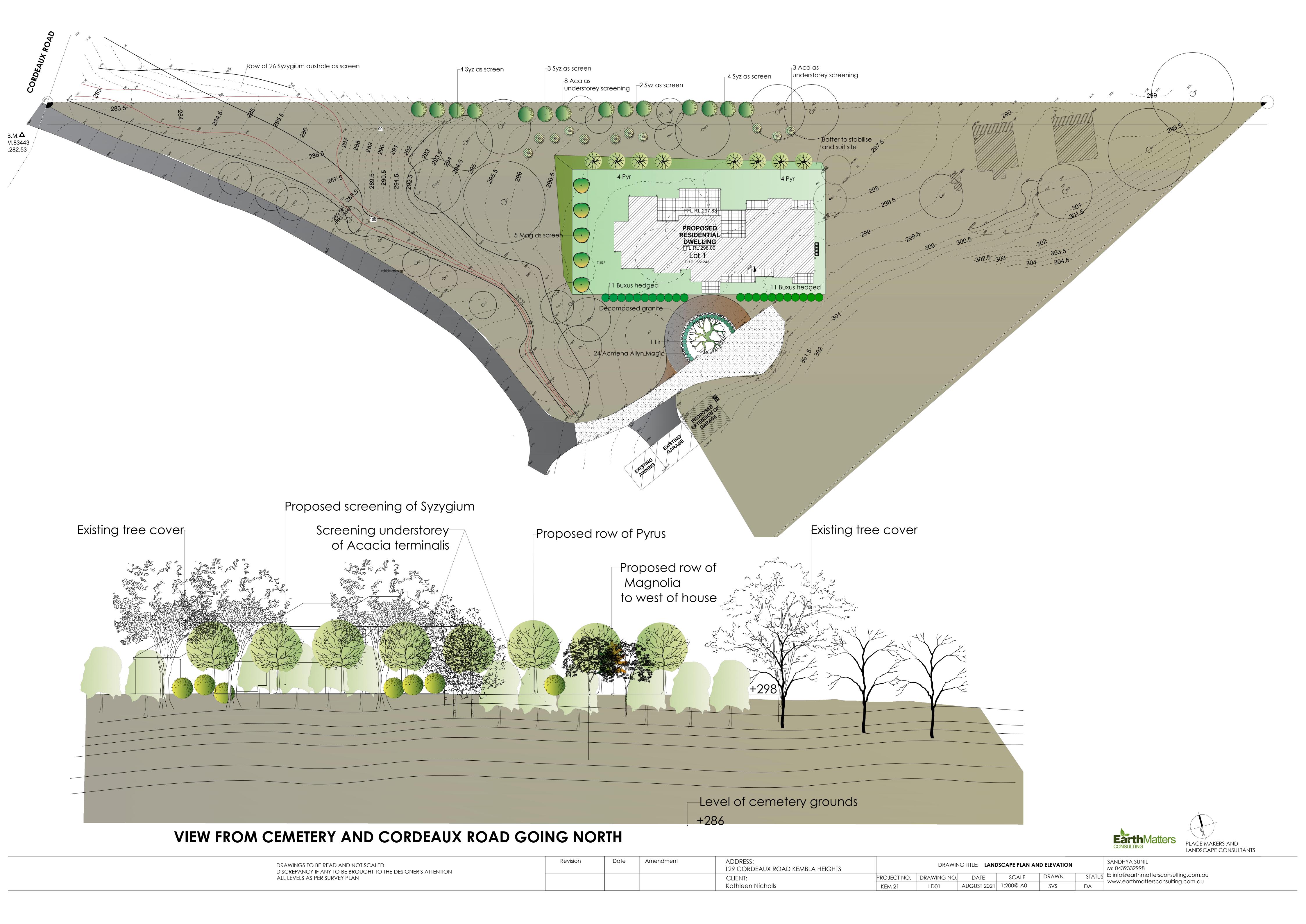


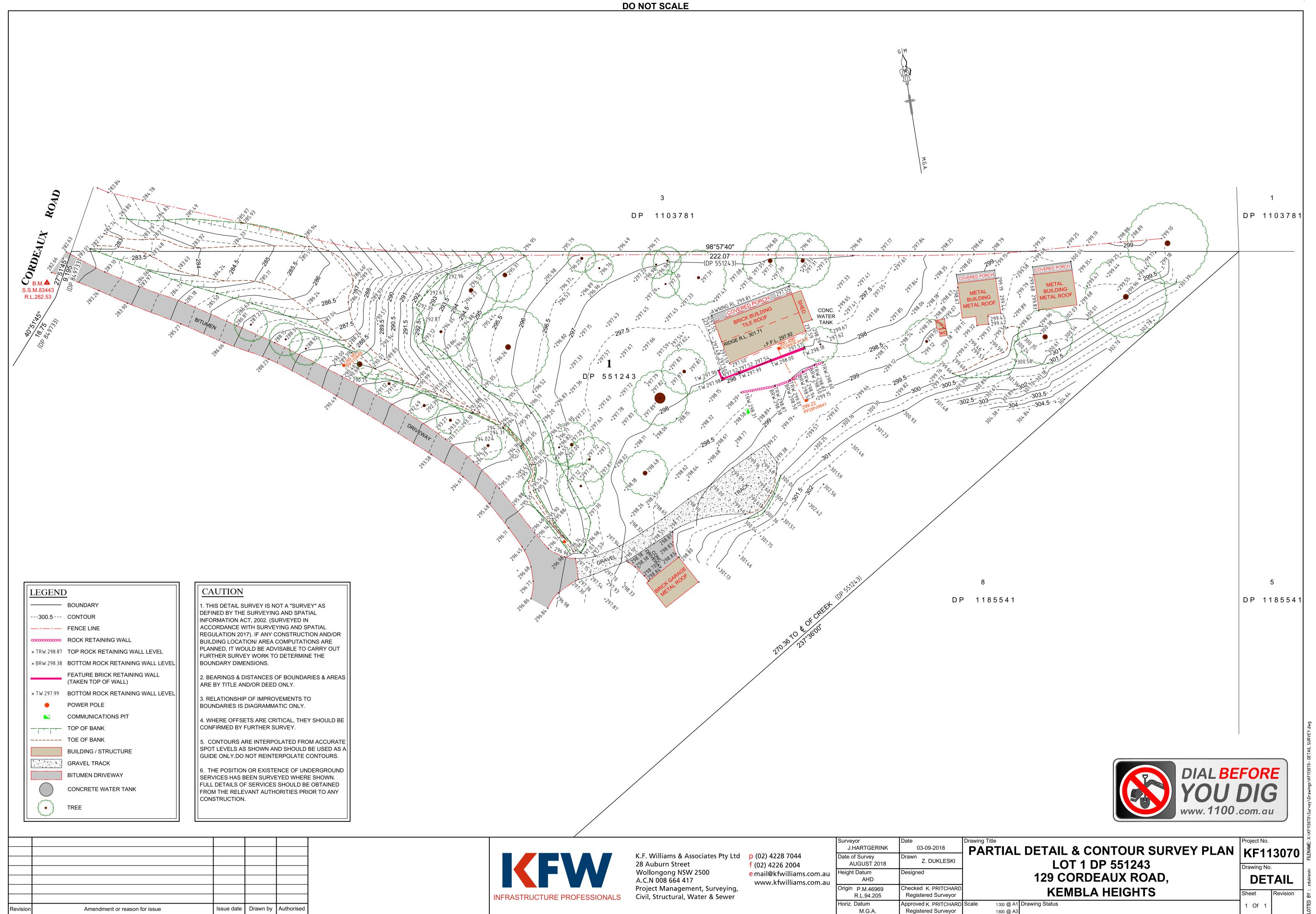
1:20

JOB NUMBER DRAWING NUMBER

22123 CO2

NOT FOR CONSTRUCTION





Date: 21 December 2021

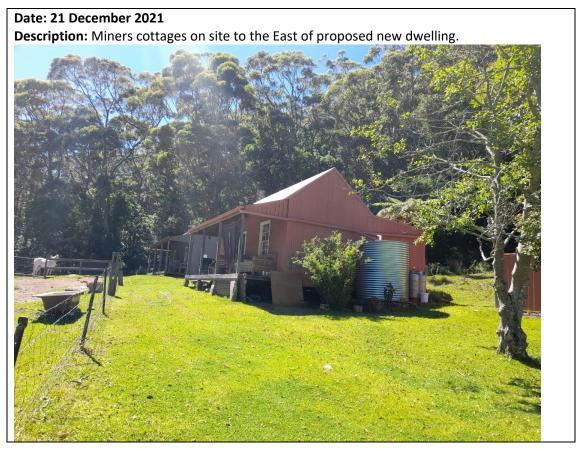
Description: Existing dwelling proposed to be demolished. Site of proposed dwelling to the left of photo.



Date: 21 December 2021

Description: Miners cottages on Eastern portion of subject site, as viewed from site of proposed new dwelling.











Date: 21 December 2021

Description: View towards Cordeaux Road. Photo taken forward of dwelling proposed to be



Date: 21 December 2021

Description: View towards Cordeaux Road. Photo taken forward of dwelling proposed to be demolished facing North west.



Date: 21 December 2021

Description: Dwelling proposed to be demolished and site of proposed dwelling. Photo taken facing South east.



Date: 21 December 2021

Description: Site of proposed new dwelling. Dwelling to be demolished to left of photo.



Date: 21 December 2021

Description: Adjoining Escarpment land to the South of the subject site as viewed from site of proposed dwelling.



Date: 21 December 2021

Description: View from site of proposed dwelling West towards existing principal dwelling



Date: 21 December 2021

Description: Site of proposed new dwelling. Photo taken facing West. Dwelling to be demolished to the right of photo.



Date: 21 December 2021

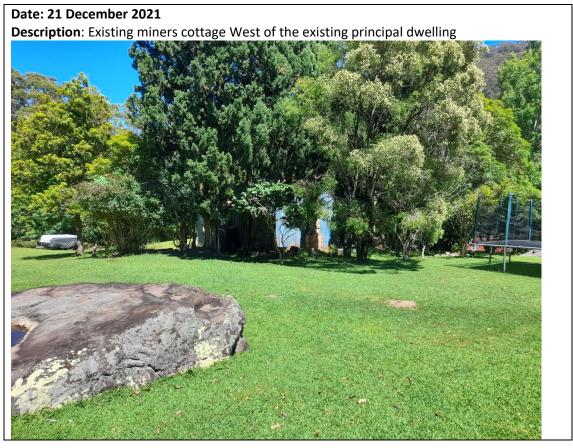
Description: View towards existing principal dwelling on subject site from site of proposed



Date: 21 December 2021

Description: Existing detached garage and site of proposed addition to garage as viewed







Date: 21 December 2021

Description: Ruins of former miners club house on the subject site on Cordeaux Road



Date: 21 December 2021

Description: View from Cordeaux Road toward existing principal dwelling. Clubhouse ruins to left of photo.



Date: 21 December 2021

Description: Entrance to subject site. Existing principal dwelling to the right of photo and site of proposed new dwelling to the left of photo.



Date: 21 December 2021

Description: View of Windy Gully Cemetery from Cordeaux Road. Site of proposed dwelling is to the rear of photo.





Date: 21 December 2021

Description: View of dwelling proposed to be demolished and site of proposed new dwelling as viewed from Cordeaux Road. Windy Gully Cemetery is located to the right of photo

Attachment 3: WDCP 2009 compliance table

CHAPTER A2: ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Development controls to improve the sustainability of development throughout Wollongong are integrated into the relevant chapters of this DCP.

Generally speaking, the proposal could be considered to be consistent with the principles of Ecologically Sustainable Development.

CHAPTER B1 – RESIDENTIAL DEVELOPMENT

Chapter B1 contains residential development controls for dwelling houses and secondary dwellings and applies to all residential zoned lands including E4 Environmental Living.

Controls/objectives	Comment	Compliance
4.1 Maximum Number of Storeys		
• R2 zone maximum height of 9m – a	Maximum Height: 8.98m	Yes
maximum of 2 storeys.	Number of Storeys: Two (2).	Yes
 R2 where development occurs within the 8m rear setback the development is limited to single storey. Built form that has a positive impact on the visual amenity of the area and addresses site constraints and overlooking of neighbouring properties 	It is considered that insufficient information has been provided to demonstrate that the proposal will have minimal impact on the visual amenity of the area. Details of the proposal were referred to Council's Heritage Officer for comment. Advice received indicates that while a Visual Impact Assessment (VIA) was provided upon Council's request, it is not considered to provide an adequate assessment and fails to demonstrate that visual impact of the development on the area and heritage items will not be adverse.	No
4.2 Front Setbacks		
Infill 6m min but less dependent on	Dwelling: 112m	Yes
street character	Garage: 133m	Yes
 Garages and carports 5.5m min 4.3 Side and Rear Setbacks 		
Wall Setback: 0.9m min	Side Setbacks:	
Eave Setback: 0.45m	Dwelling:	Yes
Rear Setback 0.9m	• 13m (North east)	Yes
Real SetBack 0.5III	• 150m (South west)	
	Garage Additions:	
	• 55m (North east)	Yes
	• 136m (South west)	Yes
	Rear setbacks:	

	Dwelling: 32.3m	Yes
	Garage Additions: 21m	Yes
4.4 Site Coverage		
The maximum site coverage for a dwelling, dual occupancy, and combined maximum coverage for a principle dwelling and secondary dwelling, is as follows:	Proposed site coverage: 4.49% (1046m²/23313.4m²).	Yes
 55% of the area of the lot, if the lot has an area less than 450m². 50% of the area of the lot, if the lot has an area of at least 450m² but less than 900m². 40% of the area of the lot, if the lot has an area of at least 900m². 4.5 Landscaped Area 		
 Minimum Required 39.36% permeable area capable of growing trees, shrubs, groundcover and/or lawn. 50% behind the building line to the primary road 	Proposed: Approximately 90.5%.	Yes
Integrated with drainage design A C Drivete Ocean Street		
 4.6 Private Open Space 24m² of private open space must be directly accessible from the living areas; min width of 4m and no steeper than 1:50. 	The proposed development satisfies the objectives and standards of Council's private open space controls.	Yes
 Not to be located on side boundaries or front yards without variation. 		
4.7 Solar Access Requirements		
 Windows to living rooms of adjoining dwellings must receive at least 3hrs continuous sunlight between 9.00am - 3.00pm on 21 	It is considered that the proposed development will have minimal impact on adjoining dwellings in terms of Solar Access.	Yes
 At least 50% of the private open areas of adjoining residential properties must receive at least 3hrs continuous sunlight between 9.00am - 3.00pm on June 21. 4.8 Building Character and Form 	It is considered that the proposed development can receive a reasonable amount of sunlight to private open space areas.	
	The development as proposed is not	No
 Design, height and siting of a new dwelling-house or secondary 	considered to take into account the	INU

- dwelling must respond to its site context
- New dwelling-houses within established residential areas should be sympathetic with the existing character of the immediate locality.
- All residential buildings must be designed with building frontages and entries clearly addressing the street frontage.
- Where garages are proposed on the front elevation they must be articulated from the front façade.
- Where the garage door addresses the street they must be a maximum of 50% of the width of the dwelling.

natural features of the locality in particular the topography when the extent of cut, landform modification for the proposed development is taken into account.

It is considered that insufficient information has been provided to demonstrate that the proposal will have minimal impact on the visual amenity of the area. Details of the proposal were referred to Council's Heritage Officer for comment. Advice received indicates that while a Visual Impact Assessment (VIA) was provided upon Council's request, it is not considered to provide an adequate assessment and fails to demonstrate that visual impact of the development on the area and heritage items will not be adverse.

Yes

It is noted that building frontages clearly address the street, the garage door is less than 50% of the width of the building.

4.9 Fences

- Fences must be constructed to allow natural flow of stormwater or runoff.
- Fences within front and secondary building lines should be mainly constructed of transparent fence materials.
- Any fence or related retaining wall within the front setback from the primary road frontage must be a max 1.2m in height

Conditions could be recommended with regard to fencing.

Yes

4.10 Car parking and Access

- 2 spaces per dwelling with a GFA of greater than 125m²
- Car parking spaces may be open hard stand space, driveway, carport or a garage.
- Garage door facing roads-not greater than 50% of the width of the dwelling.
- Garages must be setback min of 5.5m from front boundary.

The proposal includes the addition of double garage to the existing double garage and attached awning.

It is considered the garage satisfies AS2890.

The garage is setback approximately 133m from the front boundary

The garage doors have been oriented to address Cordeaux Road.

Yes

Yes

Yes

Yes

• • • • • • • • • • • • • • • • • • •	Driveways shall be separated from side boundaries by a minimum of 1m. Driveways shall have a max crossover width of 3m. 1 Storage Facilities	The proposed development satisfies the objectives of Council's Car Parking and Access controls and policies.	
• 4.1	3 bedroom- 10m³ storage volume to 5m² storage area 2 Site Facilities	The proposed development will provide adequate storage facilities.	Yes
4.1	letterboxes in an accessible location air-con, satellite dishes and other ancillary structures to be located away from street frontage, not in a place where they are a skyline feature and adequately setback 3 Fire Brigade Servicing	The necessary site facilities have been provided and are acceptable in this circumstance.	Yes
•	All dwellings located within 60m of a fire hydrant	The subject site can be adequately serviced by fire fighting vehicles in this circumstance.	Yes
4.14	4 Services		
•	Encourage early consideration of servicing requirements	Water, electricity, sewage and telephone services are available to the site	Yes
4.1	5 Development near the coastline		
•	Must minimise built intrusions into coastal landscape	Not Applicable	Yes
•	Retain views to the ocean from roads and public spaces		
•	Maintain buildings consistent with coastal character		
4.16 View sharing			
•	To protect and enhance view sharing, significant view corridors A range of view sharing measures to be considered for building design	The proposed development will have minimal impact on view corridors of existing development.	Yes
4.17 Retaining walls			
•	To ensure well designed retaining walls that are structurally sound	Submitted plans indicate that the proposal incorporates retaining walls greater than 1m in height. Clause 4.17.3(4) indicates that to limit the overall height impact, terracing of retaining wall is required, limiting the maximum vertical rise of a retaining wall to 1m, with a minimum horizontal	No

setback of 1m. Clause 4.17.3(5) indicates that any retaining wall with a vertical height exceeding 1 metre in any one vertical rise must be supported by appropriate justification demonstrating how the proposal meets the objectives.

It is noted that no justification has been provided demonstrating that the retaining walls exceeding 1m in height satisfy the objectives of the clause.

CHAPTER B6: DEVELOPMENT IN THE ILLAWARRA ESCARPMENT

This chapter of the DCP provides guidelines for the subdivision of land and the siting and design of buildings within the Illawarra Escarpment.

Under Part 4 of Chapter B6, the area of subject site zoned E4 lies within Precinct 4 - Mount Kembla Precinct of the Illawarra Escarpment area.

Controls/objectives Comment Compliance 5 Visual impact assessment considered that insufficient No information has been provided to demonstrate that the proposal will have minimal impact on the visual amenity of the area. Details of the proposal were referred to Council's Heritage Officer for comment. Advice received indicates that while a Visual Impact Assessment (VIA) was provided upon Council's request, it is not considered to provide an adequate assessment and fails to demonstrate that visual impact of the development on the area and heritage items will not be adverse. 7 Heritage (European) No

The subject site is listed as a local heritage item under the WLEP 2009 (WLEP 2009 Heritage Item 5942) adjoins Windy Gully Cemetery a local heritage item (WLEP 2009 Heritage Item 5941) and is located within a Heritage Conservation Area. Details of the application were referred to Council's Heritage Officer for comment. Advice received is that the proposed development is considered unsatisfactory noting:

- The perceived bulk and scale creates negative visual impacts on the locally heritage listed site and heritage conservation area;
- Insufficient visual impact analysis information has been submitted to demonstrate that the visual impact of the development on the locally heritage listed items and heritage conservation area will not be adverse; and

- The colour scheme fails to consider the recommendations of the Heritage Impact Statement (HIS) and Visual Impact Analysis (VIA) and the surrounding rural/bushland character of the area.
- Insufficient information has been provided as regards to the Conservation Works as per Appendix A of the Heritage Impact Statement

9 Geotechnical / land instability issues

Council's Geotechnical Officer has assessed the application submission and considered it conditionally satisfactory.

11 Dwelling and outbuilding design requirements

11.1 Dwelling siting orientation

The footprint shall be restricted to the approved subdivision building envelope for the subject site.

In cases of any existing allotment where building envelopes have not been identified, proposed buildings shall be restricted to existing legally cleared areas of the site only

11.2 Maximum FSR

11.3 Maximum Building Height

11.4 Minimum Building Separation Distance

The allotment of land has not been provided with an identified building envelope.

The proposed development is located on a cleared portion of the subject site, with minimal clearing required for to achieve the recommended bushfire protection measures.

Council's Environment has reviewed the application submission and provided unsatisfactory referral advice noting that the development is not considered site responsive when the extent of cut to facilitate the proposal is taken into consideration.

The subject site is Zoned C4. The maximum floor space ratio requirement mapped for the subject site under WLEP2009 is 0.3:1. The proposed development with a Floor Space Ratio of 0.0457:1 complies with Council's WLEP2009 maximum floor space ratio requirement for the subject site.

The proposed building height of 8.98m for the dwelling and 6.49m for the garage additions do not exceed the maximum 9.0m height limit for the subject site as identified in WLEP 2009.

The proposed dwelling will not have an unreasonable impact in terms of privacy Yes

Yes

Yes

No

Yes

Yes

Yes

Buildings must be sited in a manner that provides spatial separation between neighbouring properties, in order to provide privacy, avoid overshadowing and enable vegetative buffers between dwellings.

11.5 Building Form and Construction

or overshadowing on neighbouring properties for the following reasons:

- Reasonable building heights have been maintained.
- Reasonable separation distances to the site boundaries have been maintained.
- The shadow cast from the proposed dwelling is considered satisfactory when the effects of the Illawarra Escarpment and existing mature vegetation in the immediate locality are taken into account.

The proposed building form and construction is not considered satisfactory for the subject site.

Clause 11.5.1(3) indicates that large dwellings (e.g. greater than 150m² on one floor) are to be split level or have their bulk broken down into two or more pavilion forms to lessen their scale and obtrusiveness.

Advice received from Council's Heritage Officer indicates that the perceived bulk and scale creates negative visual impacts on the locally heritage listed site and heritage conservation area. Insufficient visual impact analysis information has been submitted to demonstrate that the visual impact of the development on the locally heritage listed items and heritage conservation area will not be adverse

Details of the application submission were referred to Council's Environment Officer for comment. Advice received is that the proposed development is not considered site responsive when the extent of cut, landform modification to facilitate the proposal is taken into consideration.

The proposed development is not considered to be sympathetic to the scenic environmental quality of the precinct.

11.6 External Building Materials and Finishes

Details of the application submission were No

No

- 1. Dwelling-houses should be constructed with external building materials which reinforce the coastal woodland / rainforest character of the Illawarra Escarpment.
- 2. Highly reflective untreated wall or roof materials will not be supported.
- 3. All external building materials must comply with the requirements of NSW Rural Fire Service *Planning for Bush Fire Protection 2019* guidelines and *Australian Standard AS 3559 2018 Construction of Buildings in Bush fire Prone Areas.*

11.7 Ancillary Outbuildings

- 1. The siting of outbuildings shall be within the curtilage of the main dwelling-house and restricted to any approved building envelope/ Development Opportunity Envelope, in order to minimise potential visual impacts.
- 2. The siting of outbuildings is to be behind any foreground vegetation and below any visually dominant ridgeline or hilltop.
- 3. The design, building form, external building materials and colours of all outbuildings should be integrated with the external appearance of the main dwelling-house.

11.8 Dwelling Houses and other buildings on bushfire prone land

1. Any Development Application for a dwelling-house or any other buildings upon land classified as bush fire prone land (i.e. under the RFS Bush Fire referred to Council's Heritage Officer comment. Advice received indicates that the colour scheme fails to consider the recommendations of the Heritage Impact Statement (HIS) and Visual Impact Analysis (VIA) and the surrounding rural/bushland character of the area.

The applicant has submitted a bushfire hazard assessment report prepared by Harris Environmental Consulting a FPAA accredited bushfire consultant with the application which explains the likely impact of the proposal and how it is proposed to minimise these impacts. The bush fire report recommendations prepared Harris Environmental bν Consulting are considered acceptable in this circumstance.

Council is satisfied that the application is compliant with the aims and objectives of PBP 2019.

The application propose additions to the existing detached garage. The proposed development satisfies the objectives and standards of Council's ancillary outbuildings development controls.

The applicant has submitted a bushfire hazard assessment report prepared by Harris Environmental Consulting a FPAA accredited bushfire consultant with the application which explains the likely

Yes

Yes

Yes

Prone Land Map (BFPLM)) must conform to all of the requirements and specifications contained in the NSW Rural Fire Service publication titled "Planning for Bush Fire Protection guidelines 2006".

impact of the proposal and how it is proposed to minimise these impacts. The bush fire report recommendations prepared by Harris Environmental Consulting are considered acceptable in this circumstance.

Council is satisfied that the application is compliant with the aims and objectives of PBP 2019.

12.2 Landscaping

The proposed development satisfies the objectives of Council's Landscaping controls and policies for development within the Illawarra Escarpment. The application submission including an arborist was referred to Council's Landscape and Environment Officers for comment. Advice received indicates there are no issues with the proposal in this regard.

12.3 Stormwater drainage / flooding

Council's Development Engineering Officer has assessed the application submission and considered it conditionally satisfactory.

12.4 Water supply

Water is available to the site

Water is available to the site

12.5 Waste water management / treatment systems

The application submission proposes an on-site waste water management system.

The application submission including the proposed on-site waste water management system has been reviewed by Council's Environment Officer and considered satisfactory subject to conditions.

12.6 Waste management

It is considered that the proposed development satisfies the objectives of WDCP2009 Chapter E7 Waste Management. The applicant has submitted a Site Waste Minimisation and Management Plan with the application submission. Conditions could be imposed to ensure that Waste Management is

Yes

Yes

Yes

Yes

12.7 Riparian corridor	carried out to Council's Waste Management specification during construction.	
<u>management</u>		
	The Riparian Land Map indicates the site contains riparian land. The application submission was referred to Council's Environment Officer for comment. Advice received indicates there are no issues with the proposal.	Yes
12.8 BASIX (energy and water smart homes)		
	A BASIX Certificate has been submitted in support of the application demonstrating that the proposed scheme achieves the BASIX targets.	Yes

CHAPTER D1 – CHARACTER STATEMENTS

Kembla Heights

Chapter D1 indicates that Kembla Heights is a small historic mining village set high in the Illawarra escarpment and is approximately 1.5 kilometres above Mount Kembla village.

The whole of Kembla Heights is contained within the Kembla Heights Heritage Conservation Area, listed under Schedule 5 Part 2 of Wollongong Local Environmental Plan 2009 and comprises mainly of small circa 1840 – 1890 (Victorian) to circa 1890 – 1915 (Federation) single storey weatherboard miner's cottages on brick, timber or stone piers with hipped iron roofs. The General Store operates as a restaurant.

Windy Gully is located 1.5 km south of Kembla Heights and contains historic cottages and the second graveyard commemorating the mining disaster.

The desired future character is for development to retain the character and preserve the buffer greenbelt.

The historic character of Kembla Heights as a whole village of original miner's cottages is unique and hence, the miner's cottages must be preserved as per the Kembla Heights Heritage Conservation Area, listed under Schedule 5 Part 2 of Wollongong Local Environmental Plan 2009. Similarly, the significance of the late nineteenth — early twentieth century miner's cottages in Windy Gully should also be retained and preserved.

The proposal is not consistent with the character of the Kembla Heights precinct. The proposed land use is permissible in the C4 zone and could be considered consistent with the desired future character for the locality, however, significant issues have been raised by Council's Heritage and Environment Officers in relation to the built form impact on the character and heritage significance of the Kembla Heights precinct and the proposed developments response to the site when the extent of cut required is taken into consideration.

CHAPTER D9 – MOUNT KEMBLA and KEMBLA HEIGHTS PRECINCT

The subject site is located within the Kembla Heights precinct. Chapter D9 indicates the aims and objectives for the precinct include to protect and improve the existing high ranking scenic and

environment quality of the area and to control the design and siting of residential and ancillary development so as to protect the environment from the effects of human settlement.

Significant issues have been raised by Council's Heritage Officer in relation to the built form impact on the character and heritage significance of the Kembla Heights precinct. Insufficient information visual impact analysis information has been submitted to demonstrate that the visual impact of the development on the locally heritage listed items and heritage conservation area will not be adverse.

Council's Environment Officer has raised issues with regards to the proposed developments response to the site when the extent of cut required is taken into consideration. Insufficient information is considered to have been lodged to determine whether the proposed dwelling will be located so as to minimise any adverse impact on the natural features and environment of the Illawarra Escarpment.

As such the development is not considered consistent with the aims and objectives of the Kembla precinct.

CHAPTER E3: CAR PARKING, ACCESS, SERVICING/LOADING FACILITIES AND TRAFFIC MANAGEMENT

It is considered that the proposed development satisfies the objectives of Council's requirements for car parking and access for dwelling houses. The application proposes an additional double garage. It is considered that there is sufficient space on the subject for car parking.

CHAPTER E6: LANDSCAPING

It is considered that the proposed development satisfies the objectives of WDCP2009 Chapter E6 Landscaping.

CHAPTER E7: WASTE MANAGEMENT

It is considered that the proposed development satisfies the objectives of WDCP2009 Chapter E7 Waste Management. Conditions will be imposed on the consent to ensure that Waste Management is carried out to Council's Waste Management specification during construction.

CHAPTER E8 ONSITE SEWAGE MANAGEMENT SYSTEMS

The application submission proposes an on-site waste water management system. The application submission including the proposed on-site waste water management system has been reviewed by Council's Environment Officer and considered conditionally satisfactory in regard to on-site waste water management.

CHAPTER E11 HERITAGE CONSERVATION

The subject site is listed as a local heritage item under the WLEP 2009 (WLEP 2009 Heritage Item 5942) adjoins Windy Gully Cemetery a local heritage item (WLEP 2009 Heritage Item 5941) and is located within a Heritage Conservation Area . Details of the application were referred to Council's Heritage Officer for comment. Advice received is that the proposed development is considered unsatisfactory noting:

- The perceived bulk and scale creates negative visual impacts on the locally heritage listed site and heritage conservation area;
- Insufficient visual impact analysis information has been submitted to demonstrate that the
 visual impact of the development on the locally heritage listed items and heritage
 conservation area will not be adverse; and
- The colour scheme fails to consider the recommendations of the Heritage Impact Statement (HIS) and Visual Impact Analysis (VIA) and the surrounding rural/bushland character of the area.
- Insufficient information has been provided as regards to the conservation works as per Appendix A of the Heritage Impact Statement.

CHAPTER E12 GEOTECHNICAL ASSESSMENT

The application has been reviewed by Council's Geotechnical Officer in relation to site stability and the suitability of the site for the development. Advice received is that the application is considered conditionally satisfactory.

CHAPTER E13 FLOODPLAIN MANAGEMENT

Council's Development Engineering Officer has reviewed the proposal providing conditionally satisfactory referral advice.

CHAPTER E14 STORMWATER MANAGEMENT

Council's Development Engineering Officer has reviewed the proposal providing conditionally satisfactory referral advice.

CHAPTER E16 BUSHFIRE MANAGEMENT

Council records indicate that the subject site is located within a bushfire prone area therefore the proposal has been assessed having regard to the provisions of Planning for Bushfire Protection (PBP) 2019.

Council records list the site as bushfire affected. The application has been assessed having regard to the provisions of Planning for Bushfire Protection (PBP) 2019. The applicant has submitted a bushfire hazard assessment report prepared by Harris Environmental Consulting a FPAA accredited bushfire consultant with the application which explains the likely impact of the proposal and how it is proposed to minimise these impacts. The bush fire report recommendations prepared by Harris Environmental Consulting are considered acceptable in this circumstance.

Council is satisfied that the application is compliant with the aims and objectives of PBP 2019.

CHAPTER E17 PRESERVATION AND MANAGEMENT OF TREES AND VEGETATION

The application proposes the removal of two (2) trees to facilitate the proposal. Council's Landscape and Environment Officers have assessed the application submission, which included an Arborist Report. Conditionally satisfactory referral advice was received in regard to tree removal.

CHAPTER E18 THREATENED SPECIES

The application submission has been assessed in regard to threatened species and is considered satisfactory.

CHAPTER E19 EARTHWORKS (LAND RESHAPING WORKS)

The proposal involves earthworks to facilitate the proposed development. A geotechnical report and information regarding the earthworks to reshape the land were submitted with the application.

The application was referred to Council's Geotechnical, Development Engineering and Environment Officers for comment. Council's Geotechnical and Development Engineering Officers raised no objections in relation to this matter.

Council's Environment Officer, however, has raised issues with regards to the proposed developments response to the site when the extent of cut, landform modification required is taken into consideration. Insufficient information is considered to have been lodged to determine whether the proposed dwelling will be located so as to minimise any adverse impact on the natural features and environment of the Illawarra Escarpment.

CHAPTER E20 CONTAMINATED LAND MANAGEMENT

Not Applicable.

CHAPTER E21 DEMOLITION AND ASBESTOS MANAGEMENT

The application submission proposes demolition of an existing dwelling. A Site Waste Minimisation Plan, including waste removal was included in the application submission. Conditions could be

imposed to minimise impacts and ensure that demolition is carried out to Council's and Safe Work NSW requirements.

CHAPTER E22 SOIL EROSION AND SEDIMENT CONTROL

Conditions could be imposed to minimise the impacts of the proposed works on the environment.

CHAPTER E23: RIPARIAN LAND MANAGEMENT

The Riparian Land Map indicates the site contains riparian land. The application submission was referred to Council's Environment Officer for comment. Advice received indicates there are no issues with the proposal.

Attachment 4: Reasons for refusal

- Pursuant to the provisions of Section 4.15 (1)(a)(i) of the Environmental Planning and Assessment Act, 1979, the proposal is contrary to the Wollongong Local Environmental Plan 2009:
 - 1. Clause 1.2 (e), (f) and(h) aims:
 - a. The perceived bulk and scale creates negative visual impacts on the locally heritage listed site and heritage conservation area;
 - b. Insufficient visual impact analysis information has been submitted to demonstrate that the visual impact of the development on the locally heritage listed item and heritage conservation area will not be adverse;
 - c. The colour scheme fails to consider the recommendations of the Heritage Impact Statement (HIS) and Visual Impact Analysis (VIA) and the surrounding rural/bushland character of the area.
 - d. The dwelling is not considered to have been designed and sited to suit the natural landform and topography of the site when the proposed cut, landform modification and associated retaining walls are taken into consideration; and
 - e. The application does not provide conservation and rehabilitation measures to be undertaken to enhance the existing native vegetation on the lot.
 - 2.Land Use Table of the objectives of the C4 zone as, the application submission fails to demonstrate that the development as proposed provides for low impact residential development in an area of aesthetic value and the effect on the values of the area are not adverse.
 - 3. Clause 5.10(5)(c) it is considered that insufficient information has been provided with the proposal for the consent authority to assess and be satisfied that the built form of the development does not detract from the identified significance or setting of the listed heritage items on the Site and heritage conservation area.
 - 4. Clause 7.6(1)(a) and Clause 7.6(3)(g) as the extent of cut, landform modification is not considered to be site responsive and it is considered that insufficient information has been provided with the proposal for the consent authority to assess and be satisfied that the proposed dwelling has been located so as to minimise any adverse impact on the natural features and environment of the Illawarra Escarpment.
 - 5. Clause 7.8(3)(a) and Clause 7.8(3)(b) as insufficient information to determine whether the proposed dwelling will be located so as to minimise any adverse impact on the natural features and environment of the Illawarra Escarpment and insufficient information has been provided with regard to actual conservation and rehabilitation measures to enhance the Illawarra Escarpment.
- Pursuant to the provisions of Section 4.15 (1)(a)(iii) of the Environmental Planning and Assessment Act 1979, the proposal is contrary to the Wollongong Development Control Plan 2009 as:
 - 1.insufficient information has been provided to demonstrate that the visual impact on the amenity of the area, heritage items and heritage conservation area will not be adverse and is consistent with the objectives and controls of Chapter B1 Residential Development, Section 4.1 Number of Storeys, Section 4.8 Building Character and Form, Chapter B6 Development in the Illawarra Escarpment, Section 5.4 Visual Impact Assessment Report and Chapter E11 Heritage Conservation, Section 12 Alterations and Additions to Heritage Listed Buildings or Buildings

Within Heritage Conservation Areas, Section 14 – Development in the Vicinity of a Heritage Site and Section 20.4 – Kembla Heights Heritage Conservation Area (HCA).

- 2. The built form and scale and siting of the proposed development fails to respond to the site context and is inconsistent with the objectives and controls of Chapter B1 *Residential Development*, Section 4.1 Number of Storeys, Section 4.8 Building Character and Form, Chapter B6 *Development in the Illawarra Escarpment*, Section 11.5 Building Form and Construction, Chapter E11 *Heritage Conservation*, Section 12 Alterations and Additions to Heritage Listed Buildings or Buildings Within Heritage Conservation Areas, Section 14 Development in the Vicinity of a Heritage Site and Section 20.4 Kembla Heights Heritage Conservation Area (HCA) and Chapter E19 *Earthworks (Land Reshaping Works)* Section 2 Objectives as.
 - Insufficient information has been provided to demonstrate that the proposal will have minimal impact on the visual amenity of the area, heritage items and heritage conservation area;
 - b. The development as proposed is not considered to take into account the natural features of the locality in particular the topography when the extent of cut, landform modification for the proposed development is taken into account;
 - c. The proposal ignores topographic context with no split levelling or pavilion forms which results in a perceived bulk and scale that is out scale and context with the surrounds and extensive cut to facilitate the slab on ground construction;
 - d. Insufficient information is considered to have been lodged to determine whether the proposed dwelling will be located so as to minimise any adverse impact on the natural features and environment of the Illawarra Escarpment.
- 3.The proposed colour scheme fails to consider the recommendations of the Heritage Impact Statement (HIS) and Visual Impact Analysis (VIA) and the surrounding rural/bushland character of the area and is inconsistent with the objectives and controls Chapter B6 *Development in the Illawarra Escarpment*, Section 11.6 External Building Materials and Finishes and Chapter E11 *Heritage Conservation*, Section 12 Alterations and Additions to Heritage Listed Buildings or Buildings Within Heritage Conservation Areas, Section 14 Development in the Vicinity of a Heritage Site and Section 20.4 Kembla Heights Heritage Conservation Area (HCA).
- 4.The proposed retaining walls do not comply with the minimum site width prescribed by Wollongong Development Control Plan 2009 Chapter B1 *Residential Development,* Section 4.17.3(4) and 4.17.3(5).
- Pursuant to the provisions of Section 4.15 (1)(b) of the Environmental Planning and Assessment
 Act, 1979, the proposal fails to demonstrate the likely impacts of the proposed developments
 siting and design on the amenity of the area, heritage items and heritage conservation area will
 not be adverse.
- Pursuant to the provisions of Section 4.15 (1)(c) of the Environmental Planning and Assessment Act, 1979, the proposal fails to demonstrate that the site is suitable for the development.
- Pursuant to the provisions of Section 4.15 (1)(d) of the Environmental Planning and Assessment Act 1979, having regard for public submissions, the development is unsuitable with respect to:
 - Character of the area;
 - Heritage impacts; and
 - Environmental impacts

•	Pursuant to the provisions of Section 4.15 (1)(e) of the Environmental Planning and Assessment Act, 1979, approval of the development would set an undesirable precedent for similar inappropriate development and is therefore, not in the public interest.