ANNEXURE 2

Urban Design and NSW Apartment Design Guide Assessment

prepared by BHI Architects

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Akuna Street, Terralong Street and Shoalhaven Street, Kiama



URBAN DESIGN ASSESSMENT

AKUNA STREET, SHOALHAVEN STREET & TERRALONG STREET, KIAMA - ADM ARCHITECTS

Active Street Frontages

- The LEP specifies that any development in the B2 zone must have active street frontages at ground floor. The Kiama Town Centre DCP states that development must "Provide the greatest possible extent of 'active frontages' ie building frontages that encourage visual and pedestrian activity to all streets".
- The building to the South-Western portion of the site does not provide business or retail premises to Akuna Street rather it provides residential units with a non-compliant street setback of less than 2m and apartments located several metres below the street level.
- The commercial tenancies provided to the South-Eastern portion of the site are not at ground level –
 they are technically a basement level greater than 3m below the street level in places with greater
 than 6m street setbacks to Akuna Street and landscaping/awnings obscuring views to the frontage,
 ensuring that they are not seen from the street and are difficult to access. This will result in a street
 frontage which is challenging, if not impossible, to activate.
 - Justification of the lowered forecourt is described in the SEE as providing a "safe pedestrian access between Akuna and Shoalhaven Streets which also allows for (accessible) pedestrian entry points into the proposed development". There appears to be no reason by there would be unsafe pedestrian access by having the commercial at the street level rather than sunken 3m below. The entry points into the site would be more accessible as the extent of ramps and stairs would be reduced, and safety would be increased due to greater visibility from the street.

Pedestrian Access

- The site analysis (see drawing A-002) indicates a pedestrian link from Shoalhaven Street to Akuna Street and Terralong Street – the only connection evident is a stairway into the retail basement with no clear pedestrian pathway through it. This is a safety hazard and not suitable for a pedestrian thoroughfare.
 - The retail arcade is described in the SEE as strengthening "the pedestrian connection between Terralong and Shoalhaven Streets". Evidence of this is not seen in the plans.
- The identified pedestrian access from Akuna Street to Terralong Street is a poorly delineated three storey lift significantly forward of the main building line, which delivers pedestrians to the retail basement with a 1.5m wide pathway between a 41m blank wall and car parking to reach the commercial tenancies (see drawing A-101). This is not suitable from a pedestrian amenity, safety or functionality point of view for what is meant to be a significant pedestrian thoroughfare.
- The access from Terralong Street comprises a poorly delineated (see drawing A502) 4.5m wide pedestrian pathway which leads to a retail arcade completely enclosed by a delivery truck driveway above. This is a dark, unpleasant space without natural sunlight or ventilation, with the only anchor to entice visitors in being the Aldi supermarket, which has no visible presence to the street and is directly adjacent to a basement car park. The commercial tenancies are deemed to be at risk for vacancy due to their location removed from the street frontage and a lack of amenity. The pedestrian thoroughfare, and the associated amenities, are likely to be unsafe and unpleasant (see drawing A-101).
- As per the Kiama Town Centre DCP, "Entry points to buildings should identify themselves and should be at the same level as the street where possible." The access from Akuna Street to the significantly lowered commercial forecourt and residential units is exceedingly complex and further separates the commercial frontages from the streetscape. As there are no levels provided on the drawings, accessible pedestrian paths are not easily identified.



Residential Amenity

- The Western block of apartments does not provide communal open space adjacent to it. Residents
 must exit the building, cross a laneway and re-enter the building to access communal open space
 between the three other apartment blocks.
- The provided communal open space is largely paved, with minimal planting in raised planter boxes. The planting in these spaces does not contribute to the 7% of site area dedicated to deep soil planting required by the ADG, however given the urban nature of the site, this may be accommodated in planter boxes or by sinking planting depth into the basements below. 7% of the site would require 539sqm of deep soil planting with minimum 6m dimensions, however only a small fraction of this has been provided as on-structure planting.
- 647sqm of communal open space is provided for residents, which is less than 35% of that required by the ADG. Given the limited scale of the communal open space, it would be expected that the quality of this space would be high, however it also act as thoroughfares for residential access, so will unlikely be suitable as space for communal activities.
- The lowest floor of residential units facing Akuna Street are sunken below street level. The plans are
 unclear, but it appears that the bedrooms of at least 4 apartments face a blank wall underground,
 which is not adequate to achieve minimum levels of amenity. These units also claim cross ventilation,
 which is unlikely given their relationship to the streetscape level.
- The adaptable apartment layouts provide an onerous burden on those adapting them to amend layouts at high cost. In one case, an inaccessible ensuite is coupled with an accessible bedroom, potentially making it redundant. More suitable arrangements should be provided.
- All residential waste is concentrated in one room rather than being associated with each apartment block. There are no waste chutes, which means that residents must travel up to 80m through the basement with no discernible pedestrian pathway, causing safety concerns, to convey waste and recycling to the communal residential waste area.
- The basement car parking level is a labyrinth of dead end aisles this can simply be mitigated by removing some car parking spaces to promote clearer circulation paths in a looped arrangement rather than dead ends.

Bulk and Scale

- The Kiama DCP states that "A general building height of no more than three (3) storeys currently applies within the Kiama Town Centre. Council may consider the provision of one (1) additional storey but only where such a storey will cater only for basement level carparking and will not measure more than one (1) metre above natural ground level at any point." This control is contravened by the proposal of up to four (4) levels above ground, including basement level commercial and residential units which are sunken below street level.
- The maximum LEP building height is also exceeded across the site, with the sunken ground floor
 apartments and commercial uses to Akuna Street an attempt to reduce this exceedance while
 simultaneously compromising amenity and streetscape activation.
- The Kiama Town Centre DCP states that development must "Incorporate a building form which
 defines the frontages to streets and other public spaces", "Provide landmark features at gateway or
 key corner sites" and "On major public corners and prominent entrance sites, a three (3) storey
 height limit should be imposed. This would reflect the vertical scale of the Town Centre". Currently
 the building form does not reflect these controls, as:
 - The commercial tenancies on Akuna Street are significantly below the street level in places, with greater than 6m street setbacks to Akuna Street, resulting in a streetscape that is ill-defined and creates awkward public spaces which are difficult to access.



- The massing of the building does not mark the corner of Akuna and Shoalhaven Streets as a prominent architectural element, and in fact is diminished in scale relative to the Northern edge of the building on Shoalhaven Street, which does not step down with the site topography.

Architectural Character

- The Kiama Town Centre DCP states that development must "Complement and contribute to the context of the site in which it is proposed in terms of its land use mix and built form". The predominate land use in the area is shop top housing, with the built form comprising commercial premises at the street level and 1 level of residential above. The built form expression of the Town Centre consists of fine grain vertical delineation of shop top housing due to limited lot widths, articulation of building massing in vertical bays and stepping of buildings in response to topography. The Akuna Street and Shoalhaven Street frontages of the development do not respond to the context of the site in the following ways:
 - Commercial premises are proposed below street level or, to the west of the site, not at all.
 - The built form comprises 3 storeys of residential units above the ground floor.
 - The built form expression is predominantly horizontal, with limited vertical articulation.
 - The building proposes largely flat floor plates, with the building massing and streetscape interface not adequately responding to the topography of the site.
- The Kiama Town Centre DCP states that development must "Provide appropriate detail and architectural interest at all levels of the building, from roof lines ... to treatments of the ground floor and lower levels of the facade with finer scale articulation, richness of detail and complexity" and "A variety of building materials have been utilised throughout the Kiama Town Centre including basalt stone blocks, timber (weatherboard), masonry/brick (usually rendered), and sandstone... Building materials should include ... architectural detail and trim in timber and moulded cement. "Through the limited information provided on the building elevations and materials & colours schedules, it is clear that architectural interest and articulation is not provided as evidenced by the following:
 - Finer scale articulation is not provided to the residential levels the apartments are composed of wide expanses of glazing and balustrades, with no changes of materiality, form or scale of architectural elements to express a finer detail of articulation.
 - Richness of detailing in the massing and materiality of the building is not expressed in the largely cold and expansive monochromatic facade treatments.
 - A clear mixture of traditional materials is not evident in the design, with largely grey and white materials and detailing being shown and a lack of architectural detail and trim in warmer materials such as timber and sandstone.

Conclusion

Being the largest and most significant proposed development in the Kiama Town Centre, this development should be held to the highest standard of design quality and sensitivity to its context. Unfortunately, the design presents itself as a bulky, insensitive building exceeding the scale of its surroundings, despite unduly sinking it significantly below the Akuna streetscape level, which chooses to ignore its topographical context and significant strategic importance in the Kiama Town Centre.

Urban design principles do not appear to have been established early in the project, or they have been eroded throughout the design process. The site analysis clearly identifies key pedestrian links between Terralong Street, Shoalhaven Street and Akuna Street, however these links appear as an afterthought in



the design, buried underground in basements with inadequate amenity or consideration of safety for pedestrians and feasibility of commercial tenancies.

The amenity for pedestrians and residents is poor, with extremely limited communal space which is largely paved, acting as a thoroughfare, with minimal on-structure landscaping. Some residential units are sunk up to a storey below the street level, raising amenity and safety concerns. Commercial space to Akuna Street, which is meant to activate the street frontage, is located at basement level below the streetscape, with almost no direct visibility to the street and convoluted access points which raise safety and commercial viability concerns.

The architectural character of the building does not respond to the Kiama Town Centre context, with a generic expression that could be transplanted anywhere. The expansive horizontal expression of the building contradicts the fine grain vertical expression of the Town Centre, with limited articulation and detailing. The materials and colours are cold and bland, without the richness of detailing that is representative of the context.

4.0 COMPLIANCE SUMMARY TABLE

The following section outlines how the numerical standards in the primary design objectives outlined in the Apartment Design Guide are achieved.

				BUILDI	NG 1			
				FOYE	RA			
LEVEL	UNIT	ТҮРЕ	SIZE (1)	LOBBY (2)	POS AREA (3)	SUNLIGHT ACCESS (4)	CROSS VENT. (5)	NO DIRECT SUNLIGHT (6)
П	A101	3B	141m²	31m²	53m²	1	1	0
-7	A102	1B	67m²	21111	19m²	0	0	0
	A201	2B	102m²		27m²	1	1	0
	A202	2B	97m²		26m²	1	1	0
	A203	1B	56m²		16m²	0	0	1
2	A204	1B	56m²	32m²	16m²	0	0	1
	A205	1B	56m²		25m²	0	0	1
	A206	2B	97m²		22m²	0	1	1
	A207	2B	102m²		59m²	0	1	0
	A301	2B	102m²		27m²	1	1	0
	A302	2B	97m²		21m²	1	1	0
	A303	1B	56m²		14m²	0	1	1
ញ	A304	1B	56m²	32m²	14m²	0	1	1
	A305	1B	56m²		25m²	0	1	1
	A306	2B	97m²		20m²	0	1	1
	A307	2B	102m²		24m²	1	1	0
		FOYE	R A TOTAL			6	12	8

KEY:

UNITS A303 - A304 - A305 DO NOT ACHIEVE CROSS VENTILATION

				FOYE	RB			
LEVEL	UNIT	ТҮРЕ	SIZE (1)	LOBBY (2)	POS AREA (3)	SUNLIGHT ACCESS (4)	CROSS VENT. (5)	NO DIRECT SUNLIGHT (6)
	B101	1B	68m²		19m²	0	0	0
	B102	1B	56m²		14m²	0	0	0
щ [B103	1B	56m²	35m²	14m²	0	0	0
ם	B104	1B	56m²	33111-	14m²	0	0	0
	B105	2B	97m²		25m²	1	1	0
	B106	2B	102m²		46m²	1	1	0
	B201	2B	109m²		53m²	0	1	0
	B202	2B	97m²		48m²	0	1	0
	B203	1B	56m²		14m²	1	0	0
2	B204	1B	56m²	32m²	10m²	1	0	0
	B205	1B	56m²		10m²	1	0	0
	B206	2B	97m²		21m²	1	1	0
	B207	2B	102m²		27m²	1	1	0
	B301	2B	109m²		26m²	0	1	0
	B302	2B	97m²	14 -	20m²	0	1	0
	B303	1B	56m²		14m²	1	0	0
ខា	B304	1B	56m²	32m²	10m²	1	0	0
	B305	1B	56m²		10m²	1	0	0
	B306	2B	97m²		21m²	1	1	0
	B307	2B	102m²		27m²	1	1	0
	B401	2B	109m²		27m²	0	1	0
4	B402	2B	97m²	32m²	20m²	1	1	0
7	B403	1B	56m²	SZIII	14m²	1	0	0
	B404	3B	121m²		46m²	1	1	0
		FOYE	R B TOTALS			15	13	0

KEY:THERE IS AN INCONSISTENCY BETWEEN THE AREA ANNOTATED ON PLAN AND IN THE TABLE

				FOYE	RC			
LEVEL	UNIT	ТҮРЕ	SIZE (1)	LOBBY (2)	POS AREA (3)	SUNLIGHT ACCESS (4)	CROSS VENT. (5)	NO DIRECT SUNLIGHT (6)
	C101	18	102m²		19m²	0	0	0
	C102	1B	97m²		26m²	1	0	0
7	C103	1B	56m²	36m²	31m²	0	0	0
- L	C104	18	56m²	30111	31m²	1	0	0
	C105	2B	56m²		34m²	1	1	0
	C106	2B	67m²		29m²	1	1	0
	C201	28	109m²		58m²	0	1	0
	C202	2B	97m²		24m²	1	1	0
	C203	1B	56m²		14m²	0	0	0
7	C204	1B	56m²	32m²	10m²	0	0	0
	C205	1B	56m²	0 1	10m²	1	0	0
	C206	2B	97m²		21m²	1	1	0
	C207	2B	102m²		27m²	1	1	0
	C301	2B	109m²		27m²	0	1	0
	C302	2B	97m²		20m²	1	1	0
	C303	1B	56m²		14m²	1	0	0
13	C304	1B	56m²	32m²	10m²	1	0	0
	C305	1B	56m²		10m²	1	0	0
	C306	2B	97m²		21m²	1	1	0
	C307	2B	102m²		27m²	1	1	0
	C401	2B	109m²		27m²	0	1	0
4	C402	2B	97m²	32m²	20m²	1	1	0
_	C403	1B	56m²	JZIII	14m²	1	0	0
	C404	3B	121m²		46m²	1	1	0
		FOYE	R C TOTALS			17	13	0

		BUILDING	G 1 TOTALS			
TOTALS	5267m²	358m²	1528m²	38	38	8
OVERALL	5625	m²	132011	30		
	PERCENTA	AGES		59%	59%	13%
	REQUIR	ED		>70%	>60%	<15%

KEY:

THERE ARE INCONSISTENCIES BETWEEN THE AREAS ANNOTATED ON PLAN AND IN THE TABLE

				BUILDI	NG 2			
				FOYE	R D			
LEVEL	UNIT	ТҮРЕ	SIZE (1)	LOBBY (2)	POS AREA (3)	SUNLIGHT ACCESS (4)	CROSS VENT. (5)	NO DIRECT SUNLIGHT (6)
	D101	2B	90m²		57m²	1	1	0
	D102	1B	55m²		30m²	1	0	0
1	D103	1B	60m²	23m²	41m²	1	0	0
	D104	2B	102m²		51m²	1	1	0
	D105	2B	87m²		26m²	0	1	1
	D201	2B	90m²		23m²	1	1	0
	D202	1B	55m²		11m²	1	0	0
7	D203	1B	60m²	21m²	8m²	1	0	0
	D204	2B	102m²		25m²	1	1	0
	D205	2B	87m²		12m²	0	1	1
	D301	2B	90m²		23m²	1	1	0
	D302	1B	55m²		11m²	1	0	0
[3	D303	1B	60m²	21m²	8m²	1	0	0
	D304	2B	102m²		25m²	1	1	0
	D305	2B	87m²		12m²	0	1	1
4	D401	2B	89m²	21m²	37m²	1	1	0
47	D402	3B	154m²	ZIIII	45m²	1	1	0
		FOYE	R D TOTALS			14	11	3

KEY:

UNIT D101 IS UNDER THE GROUND LEVEL SO IT DOES NOT ACHIEVE CROSS VENTILATION

UNIT D105 IS NOT CLEAR IF IT IS UNDER THE GROUND LEVEL SO THIS CAN AFFECT THE ACHIEVEMENT OF CROSS VENTILATION

THERE ARE INCONSISTENCIES BETWEEN THE AREAS ANNOTATED ON PLAN AND IN THE TABLE

				FOYE	RE			
LEVEL	UNIT	ТҮРЕ	SIZE (1)	LOBBY (2)	POS AREA (3)	SUNLIGHT ACCESS (4)	CROSS VENT. (5)	NO DIRECT SUNLIGHT (6)
	E101	2B	87m²		25m²	1	1	0
	E102	2B	102m²		41m²	1	1	0
1	E103	1B	60m²	23m²	30m²	1	0	0
	E104	1B	102m²		30m²	1	0	0
	E105	2B	87m²		57m²	1	1	0
	E201	2B	87m²		12m²	1	1	0
	E202	2B	102m²		26m²	1	1	0
2	E203	1B	60m²	21m²	8m²	1	0	0
	E204	1B	55m²		11m²	1	0	0
	E205	2B	90m²		23m²	1	1	0
	E301	2B	87m²		12m²	1	1	0
	E302	2B	102m²		25m²	1	1	0
ញ [E303	1B	60m²	21m²	8m²	1	0	0
	E304	1B	55m²		11m²	1	0	0
	E305	2B	90m²		23m²	1	1	0
4	E401	3B	154m²	21m²	45m²	1	1	0
_	E402	2B	89m²	ZIIII	37m²	1	1	0
		FOYE	R E TOTALS			17	11	0

		BUILDING	2 TOTALS			
TOTALS	2894m²	172m²	869m²	31	22	3
OVERALL	3066	im²	555111	0.1		
	PERCENTAG	SES		91%	65%	9%
	REQUIRE	D		>70%	>60%	<15%

		OVERALL CO	MBINED TOTAL			
TOTALS	8161m²	530m²	2397m²	69	60	11
OVERALL	8691	.m²	2337111	03		
	PERCENTA	AGES		70%	61%	11%
	REQUIR	ED		>70%	>60%	<15%

Notes:

- (1) Studio >35m2,1b>50m2,2b>70m2, 3b>90m2
- (2) No more than 8 apartments per foyer
- (3) Studio >4m², 1b>8m², 2b>10m², 3b>12m² & ground floor(L1) apartments>15m² balconies
- (4) >70% min. of apartments to receive 3 hours of sun between 9am and 3pm on June 21
- (5) >60% min. of apartments to be naturally cross ventilated
- (6) <15% max. of apartments receive no sunlight

UNIT E105 IS UNDER THE GROUND LEVEL SO IT DOES NOT ACHIEVE CROSS VENTILATION

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UNIT E101 IS NOT CLEAR IF IT IS UNDER THE GROUND LEVEL SO THIS CAN AFFECT THE ACHIEVEMENT OF CROSS VINTILATION

ITEM	GUIDELINE	COMPLIES	COMPLIES ADM COMMENT	BHI REVIEW
PART 3 - Sifing	PART 3 - Siting the Development			
3A Sife Analysis	3A-1 Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context	Yes	Refer Architectural submission and supporting Statement of Environmental Effects.	Site Analysis addresses site through links, but the proposal does not adequately achieve this objective. The building does not adequately or sensitively respond to the site topography, with exceedance of maximum height, active street frontages non-compliance, non-compliance of communal open space and deep soil zones.
38 Orientation	38 Orientation 38-1 Building types and layouts respond to the streetscape and site while optimising solar access within the development	Yes	The primary living and balcony areas of the majority of apartments are oriented to the north, north east and north west and are articulated to respond to the streetscape.	The access from Akuna Street to the significantly lowered commercial forecourt and residential units is exceedingly complex and separates the commercial frontages from the streetscape. Greater than 6m street setbacks to Akuna Street result in a streetscape that is ill-defined.
	38-2 Overshadowing of neighbouring properties is minimised during mid-winter	Yes	Rear setback is maximised and meets the required ADG design criteria.	Above maximum height plane which increases shadow impact
3C Public Domain Interface	3C-1 Transition between private and public domain is achieved without compromising safety and security	Yes	The residential entries to all buildings are clear and direct from each of the respective street frontages.	The residential entries to all buildings are clear and direct from each of the respective convoluted lower entry points into residential and commercial removed from the streetscape. Safety and security is compromised by having the public domain significantly below street level on Akuna Street, with reduced visibility from the streetscape.
	3C-2 Amenity of the public domain is retained and enhanced	× es	The proposal includes new landscaping to the street frontages and establishing new footpaths and kerbs.	Despite offering new landscaping, significant trees on Akuna Street are being removed. A significant portion of the public domain is located within basements with limited light/ventilation. Removal of the forecourt from the street frontage results in public domain with limited light/ventilation.
3D Communal and Public Open Space	3D Communal 3D-1 Communal open space is and Public consolidated, well configured and Open Space designed	, √ es	Communal space is consolidated into two areas at the residential podium level.	647sam of communal open space is provided for residents, which is less than 35% of that required by the ADG. Given the limited scale of the communal open space, it would be expected that the quality of this space would be higher. The provided communal open space is largely paved, with minimal planting in raised planter boxes.

3D-2 Communal open s for a range of activities	3D-3 Safety o maximised	3D-4 Public open spac responds to the existing of the neighbourhood	3E-1 Deep so healthy plan residential ar Zones managemer	3F Visual 3F-1 Visual se Privacy equitably be providing requal and internal	3F-2 Site and building increase privacy with access to light and cand views from habit private open space	3G Pedestrian Acess and access connects to and addresses t Entries items public domain	3G-2 Access accessible a
3D-2 Communal open space can be used Yes for a range of activities	3D-3 Safety of communal open space is maximised	3D-4 Public open space, where provided, responds to the existing pattern and uses of the neighbourhood	3E-1 Deep soil zones are suitable for healthy plant and tree growth, improve residential amenity and promote management of water and air quality	3F-1 Visual separation distances are shared Yes equitably between neighbouring sites, providing reasonable levels of external and internal visual privacy	3F-2 Site and building design elements increase privacy without compromising access to light and air, balance outlook and views from habitable rooms and private open space	3G-1 Building entries and pedestrian access connects to and addresses the items public domain	3G-2 Access, entries and pathways are accessible and easy to identify
Yes	Yes	A/Z	0 Z	Yes	Yes	, √es	Yes
Ine communal spaces comprise of soft landscaping, decking, seafing, hard stand areas which will encourage a variety of uses and activities.	The communal space is readily visible from the majority of apartment habitable rooms and balconies.		Because the ground floor areas are commercial uses, there is no opportunity for deep soil zones. However, substantial planter beds at residential podium level are provided.	The proposed buildings do not adjoin any residential properties.	Communal spaces, common areas and access paths are separated from private open space by screen fencing and landscaping.	The pedestrian entry pathway and lobbys are directly visible and universally accessible from the respective street frontages of each building.	The primary entry lobbies to each building are clearly visible from each public frontage and fully accessible to comply to AS1428.1.
ine communai space can also act as moroughiares for residential access, so will unlikely be suitable as space for communal activities.		The public thoroughfares through the site are enclosed in a basement with compromised amenity and safety issues, with no precedent in the existing pattern and uses of the neighborhood	Because the ground floor areas are commercial uses, there is no opportunity for deep soil zones. However, substantial planter coverage of the site, resulting in 539sqm of planting with beds at residential podium level are provided.			Building entries are significantly below street level. Reduced visibility from the streetscape to building entries causes safety concerns.	Lowered entry points from the streetscape increase entry complexity and reduces accessability and visibility.

	3G-3 Pedestrian links through developments provide access to streets and connect destinations	S ⇔	The development makes provision for access through links, including north south links from Terralong to Akuna Street	The development makes provision for access The pedestrian link from Shoalhaven Street to Akuna Street through links, including north south links from and Terralong Street is a stainway into the retail basement with no clear pedestrian pathway through it. This is a safety hazard and not suitable for a pedestrian thoroughfare. The pedestrian link from Akuna Street to Terralong Street is through a basement with a 1.5m wide pathway between a 11m blank wall and car parking. This is not suitable from a pedestrian amenity, safety or functionality point of view for what is meant to be a significant pedestrian thoroughfare. Pedestrian access from Terralong Street comprises a poorly delineated pedestrian pathway which leads to a retail arcade completely enclosed by a delivery fruck driveway above. This is a dark, unpleasant space without natural sunlight or ventilation.
3H Vehicle Access	3H-1 Vehicle access points are designed and located to achieve safety and high quality streetscapes	Yes	The vehicular access point was selected and coordinated with the consulting traffic engineer.	
3.1 Bicycle and Car Parking	3.1 Bicycle and 3.1-1 Car parking is provided based on Car Parking proximity to public transport in metropolitan Sydney and centres in regional areas	Yes	Carparking is provided in accordance with the Wollongong City Council DCP guidelines.	
	3J-2 Parking and facilities are provided for other modes of transport	Yes	Motor bike and bicycle parking are provided.	To be shown on plan.
	3J-3 Car park design and access is safe and secure	Yes	Carpark design is in accordance with AS2890 and compliant	The basement car parking level is a labyrinth of blind aisles—this can simply be mitigated by removing some car parking spaces to promote clearer circulation paths in a looped arrangement.
	3J-4 Visual and environmental impacts of underground car parking are minimised	Yes	The visual impact is minimised to the carparking by sinking the basement under ground level as much as possible.	
	3J-5 Visual and environmental impacts of on-grade car parking are minimised	N/A		
	3J-6 Visual and environmental impacts of above ground enclosed car parking are minimised	N/A		
PART 4 - Design	PART 4 - Designing the Building			

4A Solar and Daylight Access	4A-1 Optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space	Yes	69 apartments (70%) receive the minimum 3 hours of sun between 9am and 3pm midwinter. Also refer Section 4—Compliance Summary Table for more information.	Solar Access diagram to be provided
	4A-2 Daylight access is maximised where sunlight is limited	Yes	There are no south orientated apartments	Some units do not have direct sunlight access as per the ADG compliance summary.
	4A-3 Design incorporates shading and glare control, particularly for warmer months	Yes	Window sun hoods, balcony projections and roof overhangs provide glare and shadow control.	Window sun hoods are not evident on the drawings provided.
48 Natural Ventilation	48-1 All habitable rooms are naturally ventilated	Yes	Habitable rooms have operable windows.	
	4B-2 Natural ventilation for single aspect apartments is maximised	Yes	All habitable rooms are provided with full height sliding doors orientated to the north.	
	48-3 The number of apartments with natural cross ventilation is maximised	Yes	60 apartments (61%) achieve natural cross ventilation. Also refer Section 4 —Compliance Summary Table for more information.	60 apartments (61%) achieve natural cross Refer to Compliance Summary Table REVISED for more ventilation. Also refer Section 4—Compliance information. Some apartments marked as cross-ventilated will likely not achieve cross-ventilation as per requirements of ADG.
4C Ceiling Heights	4C-1 Ceiling height achieves sufficient natural ventilation and daylight access	Yes	3.0m floor to floor provides for 2.7m floor to ceiling. Also refer Section 4 –Compliance Summary Table for more information.	With a 3m floor to floor height and an assumed 0.2m structural tickness, only 0.1m is allocated for ceiling space.
	4C-2 Celling height increases the sense of space in apartments and provides for well-proportioned rooms	Yes	Ceiling heights are maximised in habitable rooms by limiting bulkhead intrusions. The design stacks service rooms between floors to minimise lower ceilings from plumbing voids.	
	4C-3 Ceiling heights contribute to the flexibility of building use over the life of the building	o Z	Given the extent of commercial uses at ground level, and the constraints imposed by the natural typography of the site, it would be unreasonable in this instance to provide further opportunity for commercial spaces at the residential levels.	A 3.3m minimum ground floor floor to ceiling height should be provided at the street level

4D Apartment Size and Layout AE Private Open Space and Balconies	4D-1 Spatial arrangement and layout of apartments is functional, well organised and provides a high standard of amenity 4D-2 Environmental performance of the apartment is maximised 4D-3 Apartment layout can accommodate a variety of household activities and needs 4E-1 Primary private open space and balconies are appropriately sized	Yes Yes	Apartments exceed the minimum internal areas described in the ADG, in this case being 64sqm for a 1 bed type, 95sqm for a 2 bed type and 154sqm for a 3 bed type. All living areas and bedrooms are located on the external face of the building. Access to bedroom, bathrooms and laundries is separated from living rooms to minimise direct openings between living and service areas. Apartment layouts provide room almensions which facilitate a variety of furniture arrangements and spaces for a range of activities and privacy levels between them. Balconies exceed the minimum required in the ADG, in this case being 12m² and a minimum depth of 2.6m for 1 bed units, 10m² and a minimum depth of 2.6m for 2 bed units and 24m² and a minimum depth of	Annotations of units size on plans should be checked, as they do not correspond to the ADG compliance table in many cases. Some units living spaces do not meet the minimum width dimensions (B206,B202). Bedrooms also undersized (D205,E201). Oversized storage rooms are provided in each apartment, which reduces the efficiency of layouts and increases building bulk. It is unclear how these rooms will function. Private open spaces are not dimensioned. This information is required for a complete assessment.
	4E-2 Primary private open space and balconies are appropriately located	Yes	Primary open space and balconies are located adjacent to the living room, dining rooms and master bed room.	
	4E-3 Private open space and balcony design is integrated into the overall architectural form and detail of the building	Yes	Balconies are designed to respond to the location and to allow views towards the public and communal spaces while maintaining visual privacy. Operable screens improve amenity in terms of wind and sun control. Water and gas outlets are provided to all primary balcony spaces.	

AF Common	4E-4 Private open space and balcony design maximises safety	Yes	Daviest and acting leading or are	The units below street level have not demostrated compliance with safety principles.
4r Common Circulation and Spaces	4F-1 Common circulation spaces acrieve good amenity and provide for a variety of apartment types	, es	Dayight and natural ventilation are provided to common circulation areas. All common circulation areas facilitate universal access.	
	4F-2 Common circulation spaces provide for interaction between residents	Yes	Each lobby is small and compact with direct and legible access between the lift and the apartment entry door.	
4G Storage	4G-1 Adequate, well designed storage is provided in each apartment	Yes	Storage is provided within the apartment and the basement or car parking area for each apartment.	The storage in each appartment is oversized and its use appears ambiguous.
	4G-2 Additional storage is conveniently located, accessible and nominated for individual apartments	Yes	Storage is provided in the basement carpark Not nominated for individual apartments. at the rear or side of car spaces within cages.	Not nominated for individual apartments.
4H Acoustic Privacy	4H-1 Noise transfer is minimised through the Yes siting of buildings and building layout	Yes	Adequate separation is provided to adjacent buildings. Nosier areas such as lift and entries are located away from habitable areas. Party walls and floors will exceed the minimum sound impact ratings.	
	4H-2 Noise impacts are mitigated through internal apartment layout and acoustic treatments	Yes	Internal layout separates living areas from bedroom areas. Robe areas in bedrooms buffer bathroom walls.	
41 Noise and Pollution	41-1 In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of the buildings	Yes	The design responds both to solar and noise requirements.	Acoustic isolation has not been demonstrated between the toading bay/truck driveway and apartments.
	41-2 Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission.	Yes	A solid balcony balustrade to the lower levels fronting the road reduces the perception of noise and increases the physical separation to the road.	
4K Apartment Mix	4K Apartment 4K-1 A range of apartment types and sizes Mix is provided to cater for different types now and into the future	Yes	There are 17 apartment types ranging in size from 64sqm to 136sqm and configured as 1 and 3 bedroom.	

40 Landscape 40-1 Landscape design is viable and Design sustainable	40-2 Landscape design c streetscape and amenity	4P Planting on AP-1 Appropriate soil profiles are provided Structures open spaces	4P-2 Plant growth is optimised with appropriate selection and maintenance	4P-3 To contribute to the quality and amenity of communal and public	4Q Universal 4Q-1 Universal design features are included in apartment design	4Q-2 A variety of apartments with adaptable designs are provided	4Q-3 Apartment layouts are flexible and accommodate a range of lifestyle need	4R Adaptive 4R-1 New additions to existing buildin Reuse contemporary and complementary	4R-2 Adapted buildin
sign is viable and	40-2 Landscape design contributes to the streetscape and amenity	profiles are provided	optimised with n and maintenance	the quality and all and public	n features are nt design	artments with	4Q-3 Apartment layouts are flexible and accommodate a range of lifestyle needs	4R-1 New additions to existing buildings are N/A contemporary and complementary	4R-2 Adapted buildings provide residential N/A
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A
The landscape design incorporates appropriately scaled trees along the street frontage and around the communal space. A balance of shrubs and hedges provide soft edges around fencing and walls.	Landscaping is proposed between the building line and the street boundary at the level change.	Refer landscape plan	Refer landscape plan	Refer landscape plan	The building achieves a benchmark 20% of the total yield incorporating the Livable Housing Standard and 25% adaptable to AS4299, Also refer Access report.	As 25 adaptable units are required, three apartment types have been provided.	Internal structure is non-loadbearing and can be altered in future.		
	Removal of significant trees to Akuna Street reduces streetscape amenity.			The provided communal open space is largely paved, with minimal planting in raised planter boxes.		The adaptable apartment layouts provide an onerous burden on those adapting them to amend layouts at high cost. In one case, an inaccessible ensuite is coupled with an accessible bedroom, potentially making it redundant. More suitable arrangements should be provided.			

4S Mixed Use		4T Awnings and Signage		4U Energy Efficiency		
45-1 Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement	4S-2 Residential floors are integrated within Yes the development, safety and amenity is also maximised	4T-1 Awnings are well located and complement and integrate with the building design	4T-2 Signage responds to the context and desired streetscape character	4U-1 Development incorporates passive environmental design	4U-2 Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer	4U-3 Adequate natural ventilation minimises the need for mechanical ventilation
√es	Yes	Yes	Yes	Yes	Yes	× es
Active street frontage uses are provided to Terralong and Shoalhaven Streets.	Residential apartments are provided above ground floor retail uses.	Extended awnings are provided over the main entries to provide weather protection and assist in identifying the buildings main entry point.	Signage is limited to a single wall along the street front. The signage will be discrete in scale in response to the scale of the development.	Adequate natural light is provided to habitable rooms.	The design response provides for overhangs and shading devices such as awnings, screens and balconies. Roofs and floors are concrete, providing thermal mass to the building. Walls are insulated and all openings will be thermally sealed.	Natural ventilation is provided to all habitable rooms, common circulation areas and lobby areas.
The building to the South-Western portion of the site does not provide business or retail premises to Akuna Street. The commercial tenancies provided to the South-Eastern portion of the site are not at ground level – they are technically a basement level greater than 3m below the street level in places – with greater than 6m street setbacks to Akuna Street and landscaping/awnings obscuring views to the frontage, ensuring that they are not seen from the street and are difficult to access. This will result in a street frontage which is challenging, if not impossible, to activate.	Residential apartments are provided above Some apartments are provided below the street level. ground floor retail uses.	Awnings are not readily evident on the drawings. Building overhangs to the commercial level below the Akuna Street frontage block views to these uses.		Evidence to be provided.		The lowest floor of residential units facing Akuna Street are sunken below street level. The plans are unclear, but it appears that the bedrooms of at least 4 apartments face a blank wall underground, which is not adequate to achieve cross ventilation, which will reduce the total number below

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4V Water management and Conservation	4V Water management and and and accessing waters are integrated into site design. 4V-2 Urban stormwater is treated on site before being discharged to receiving waters 4V-3 Flood management systems are integrated into site design.	Yes Yes	Water efficient fittings and appliances are incorporated. Refer BASIX certificates. Runoff is collected and used for re-use for irrigation. Also refer BASIX certificates. The stormwater system is designed by a suitably audified enaineer in consultation
- 1			with council.
anagemen	4W Waste 4W-1 Waste storage facilities are designed Management to minimise impacts on the streetscape, building entry and amenity of residents	kes Kes	Waste storage is located within the basement carparking area and concealed from the building entry and streetscape.
	4W-2 Domestic waste is minimised by providing safe and convenient source separation and recycling	Yes	Recycling and waste bin areas will be provided in a mechanically ventilated secure room within the basement.
4X Bilding Mainfenance	4X-1 Building design detail provides protection from weathering	Yes	Roof overhangs protect walls, windows and openings. Architectural detailing will ensure horizontal edges will not cause drip or staining of wall surfaces.
	4X-2 Systems and access enable ease of maintenance	Yes	Centralised services risers are provided from common spaces. Windows are able to be cleaned from the inside or adjoining balcony areas.
	4X-3 Material selection reduces ongoing maintenance costs	Yes	Robust materials and finishes are selected, refer materials and finishes schedule as part of DA submission.

DEMOLITION OF EXISTING STRUCTURES AND CONSTRUCTION OF A MIXED USE DEVELOPMENT COMPRISING RESIDENTIAL APARTMENTS ABOVE RETAIL SHOPS, COMMERCIAL TENANCIES AND ASSOCIATED CARPARKING AREAS

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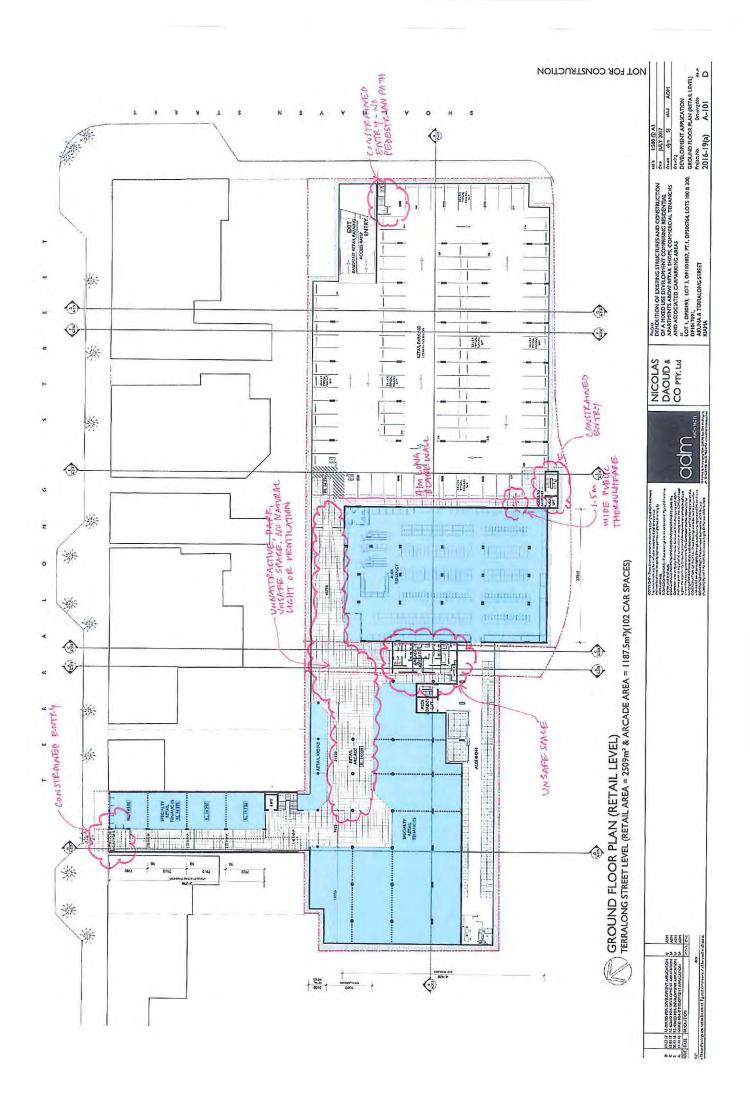
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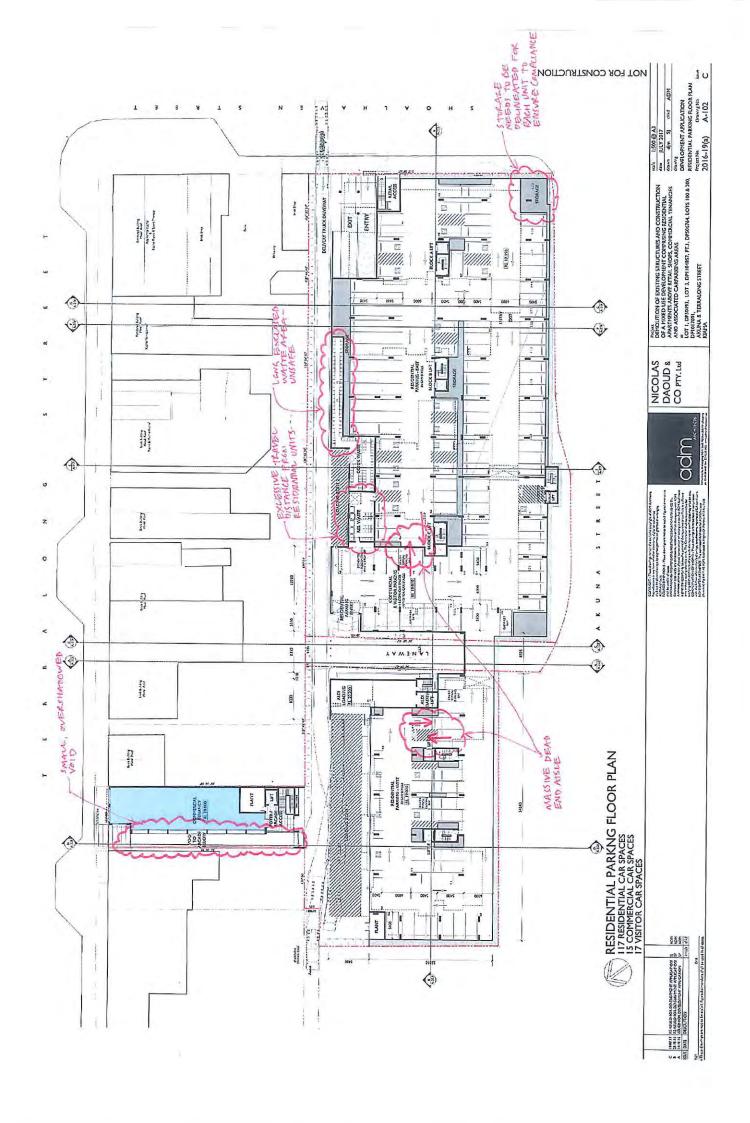
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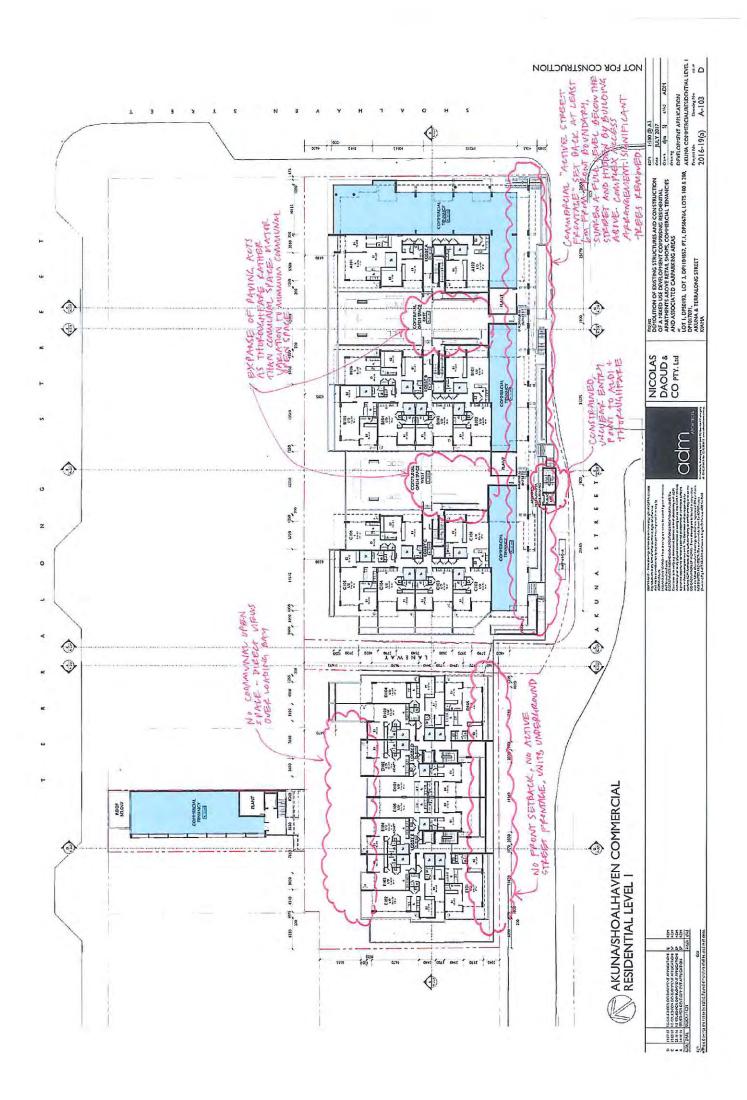
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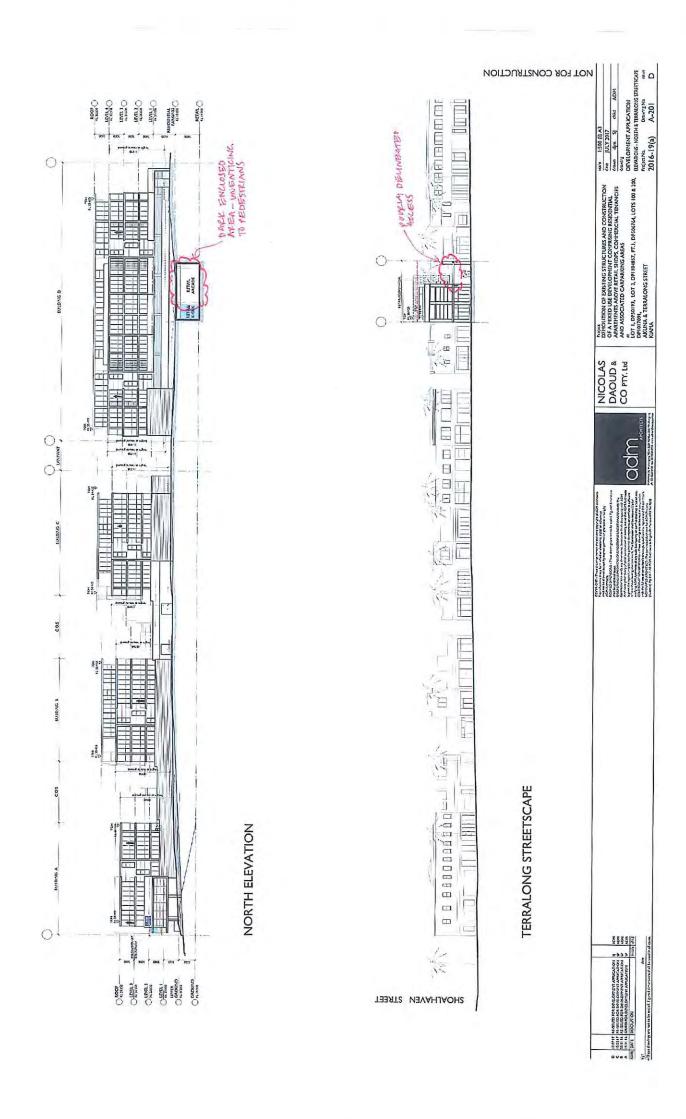
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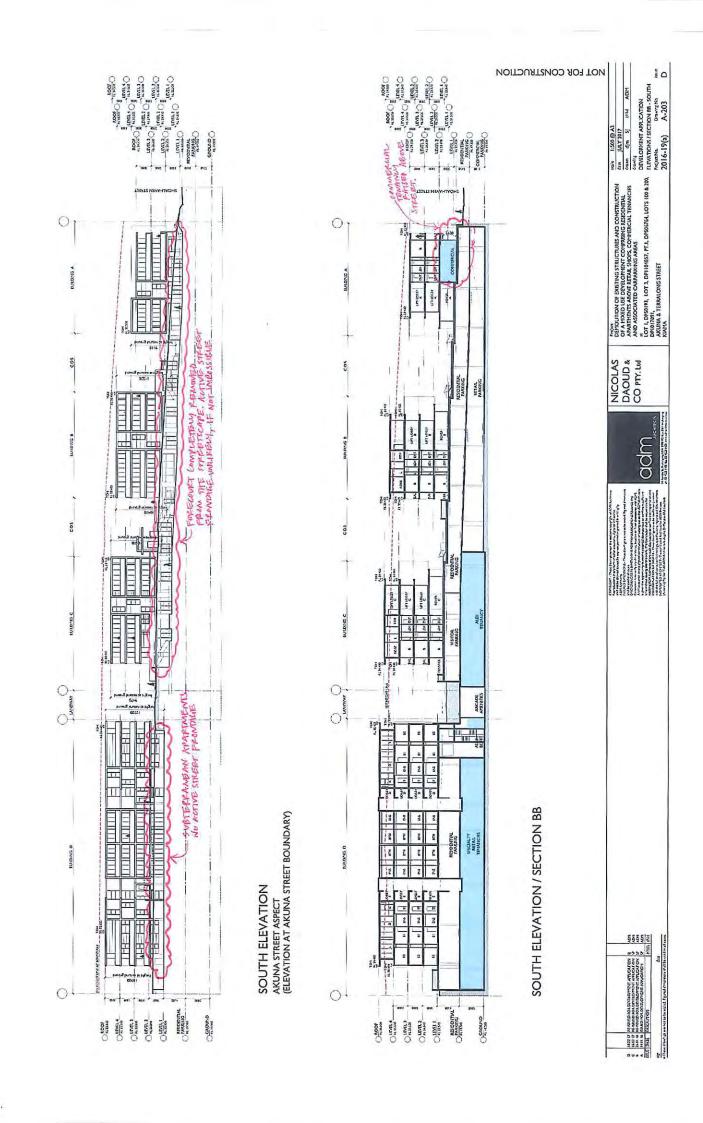


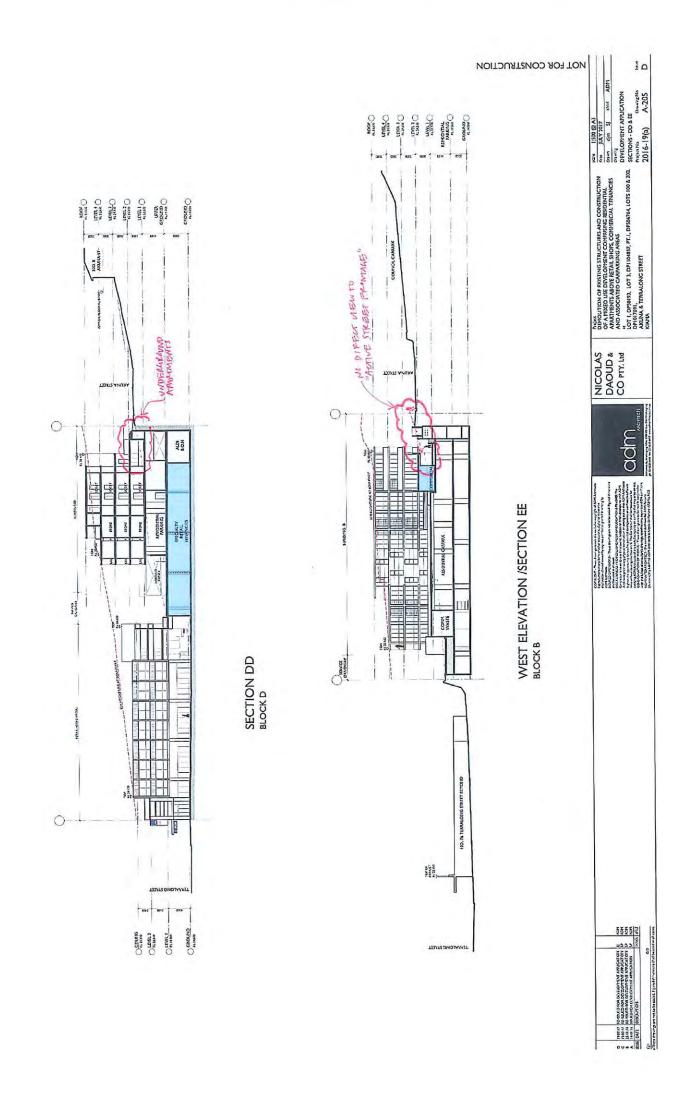


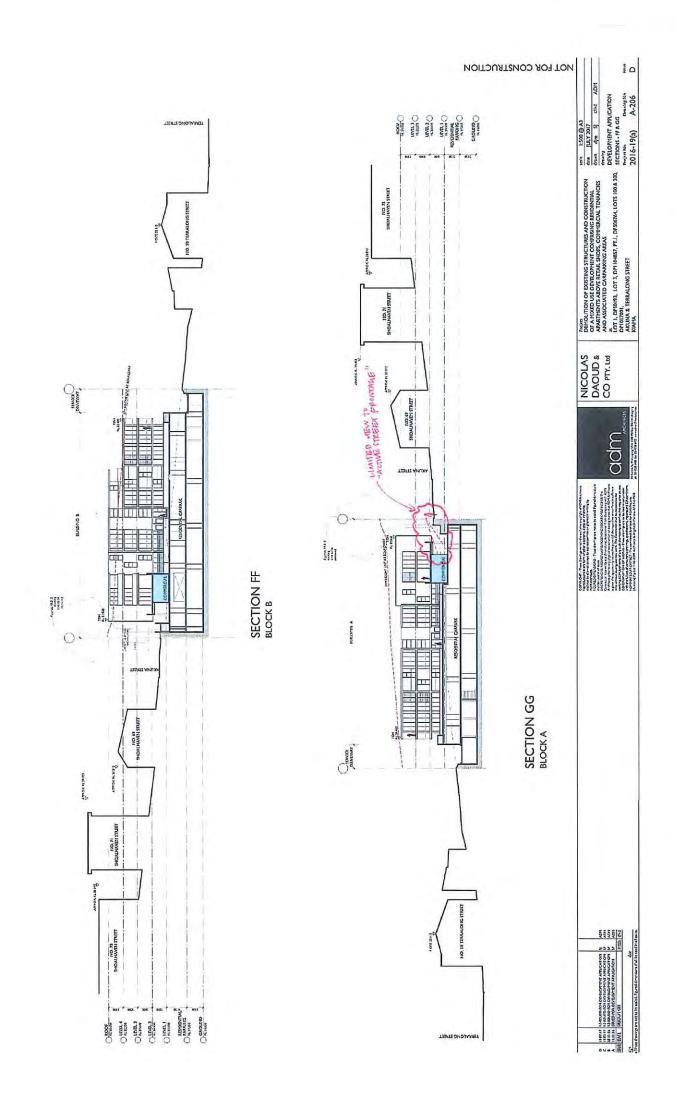


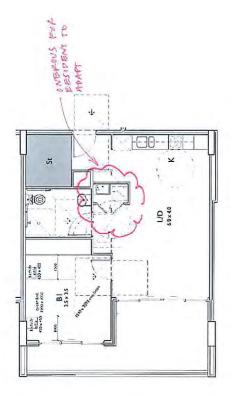












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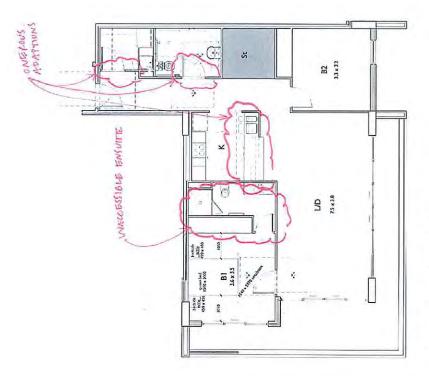
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