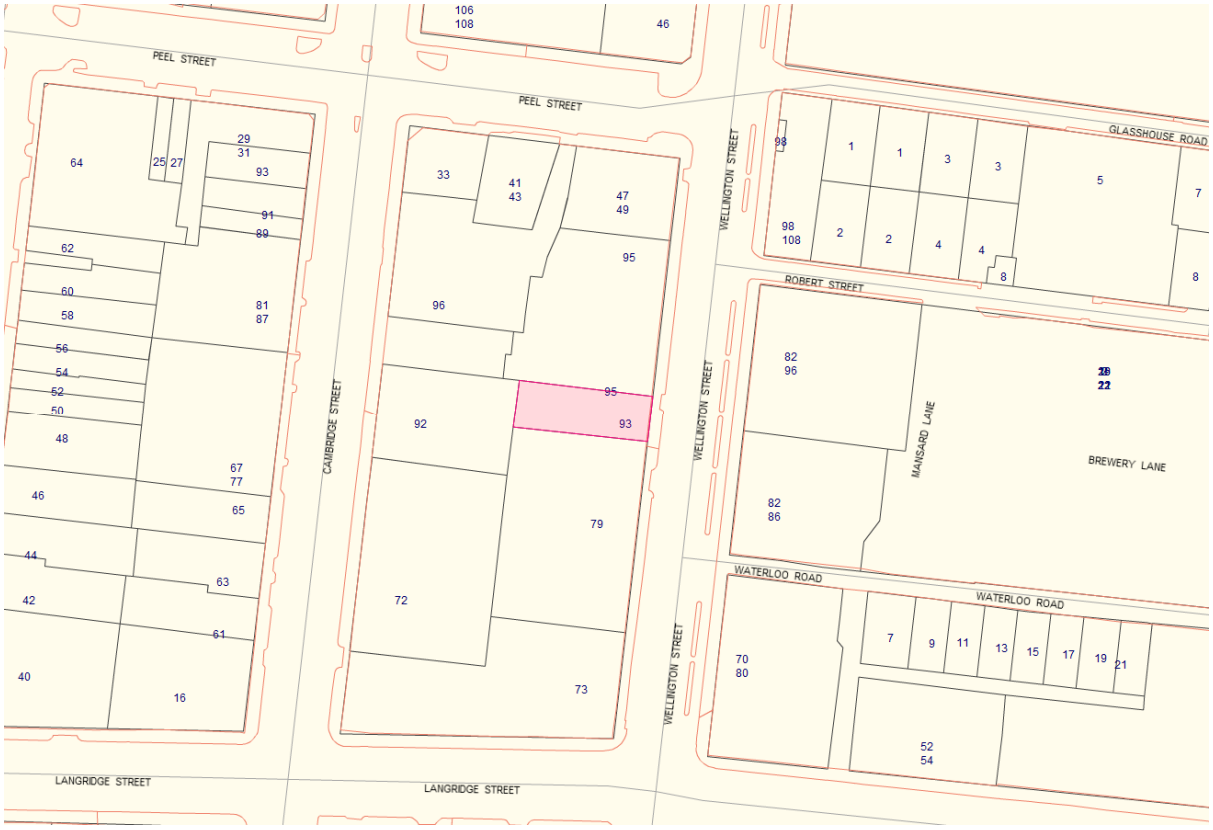
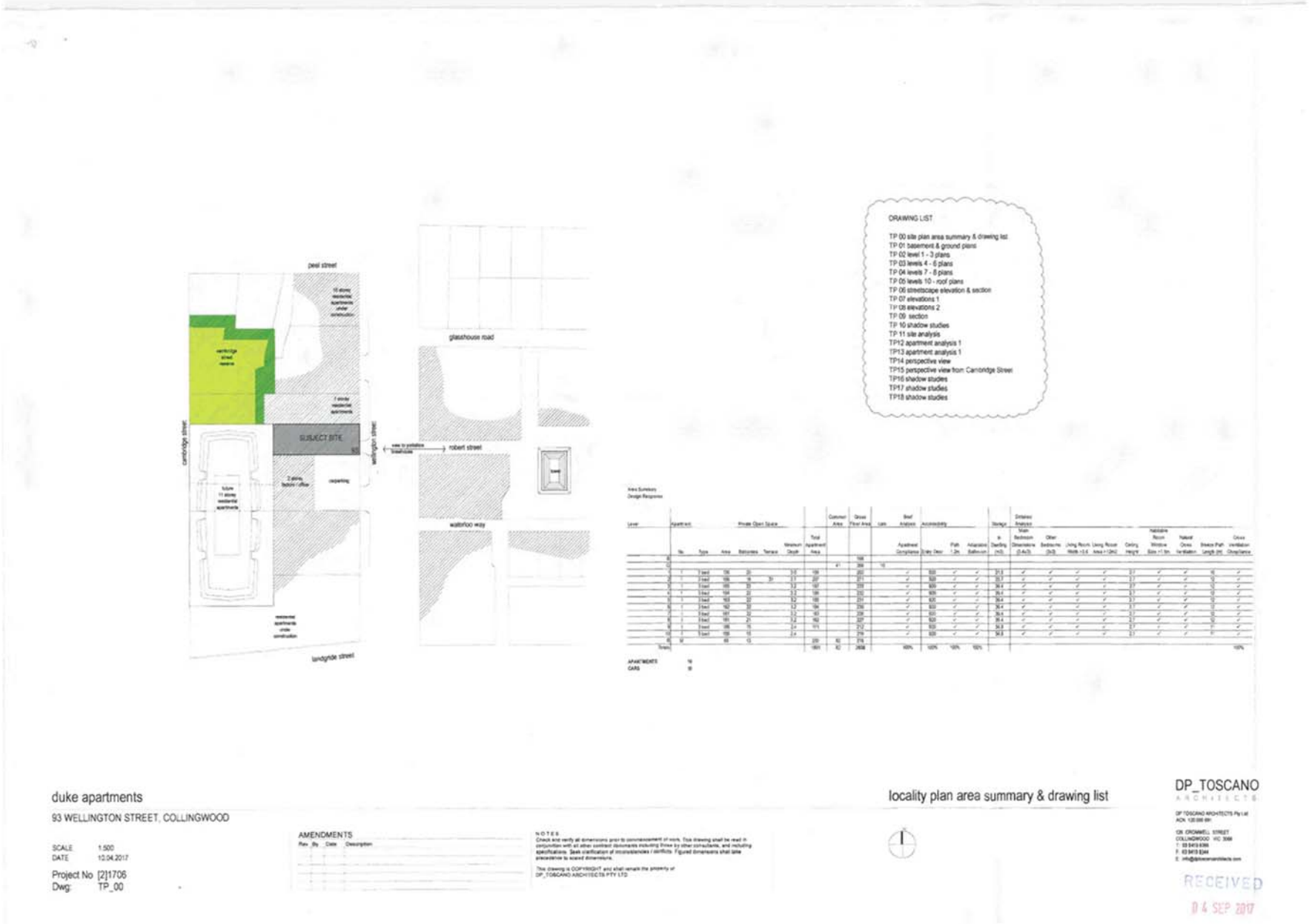
Attachment 1 - PLN17/0512 - 93 Wellington Street Collingwood - Location map

93 Wellington Street, Collingwood



N

Attachment 2 - Original, Advertised plans (now superseeded)



Attachment 2 - Original, Advertised plans (now superseeded)

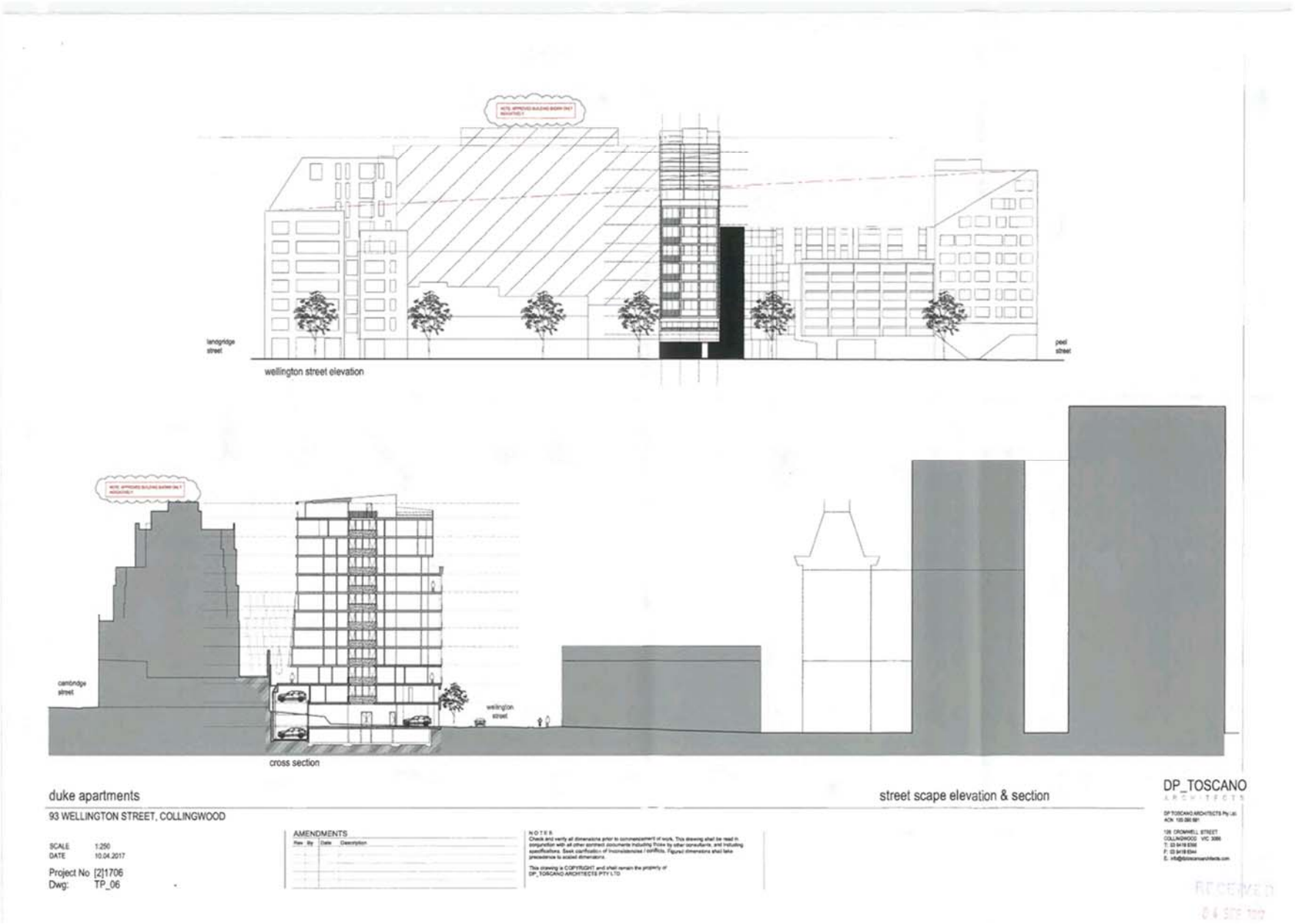
Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 2 - Original, Advertised plans (now superseeded)

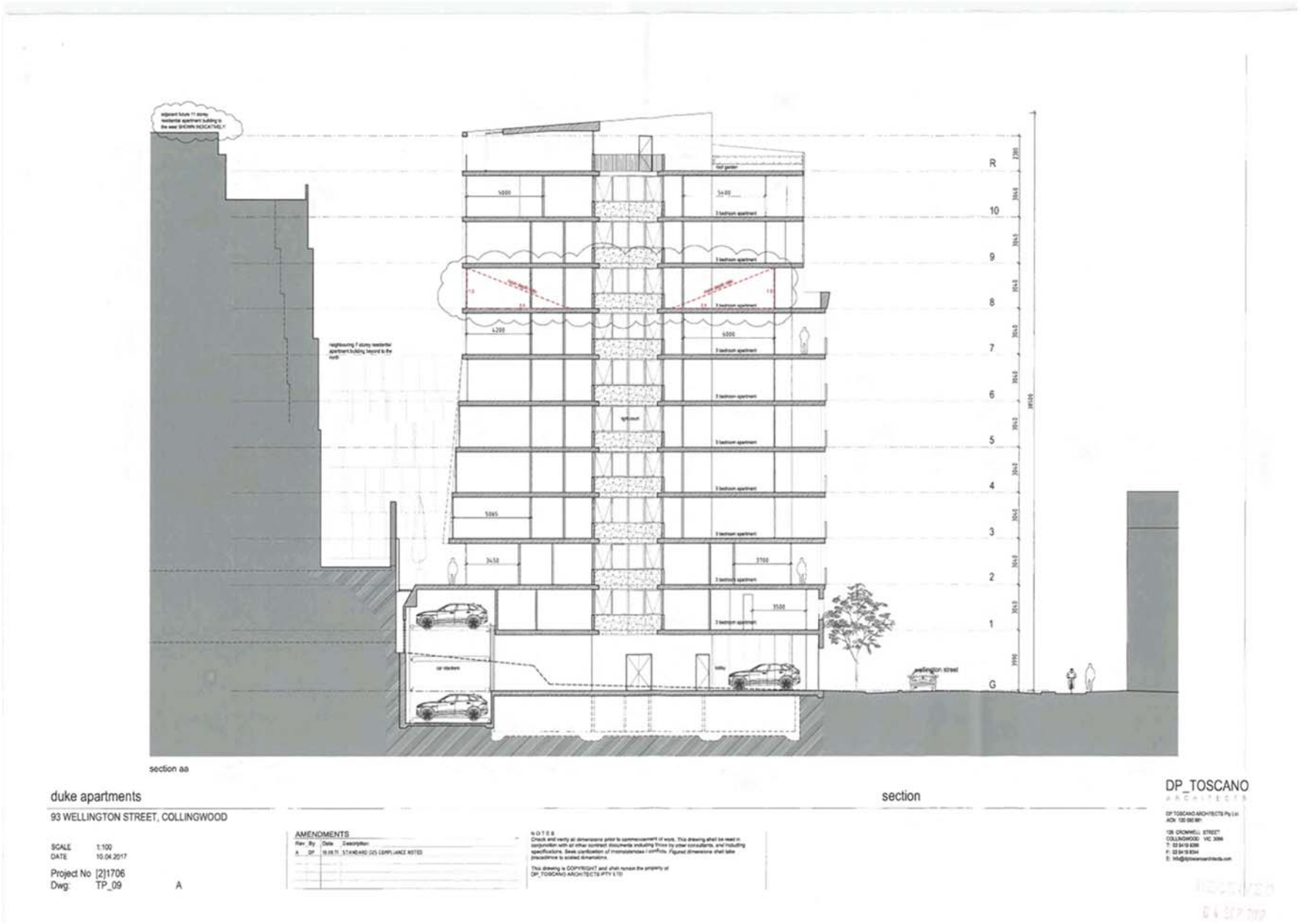
Attachment 2 - Original, Advertised plans (now superseeded)



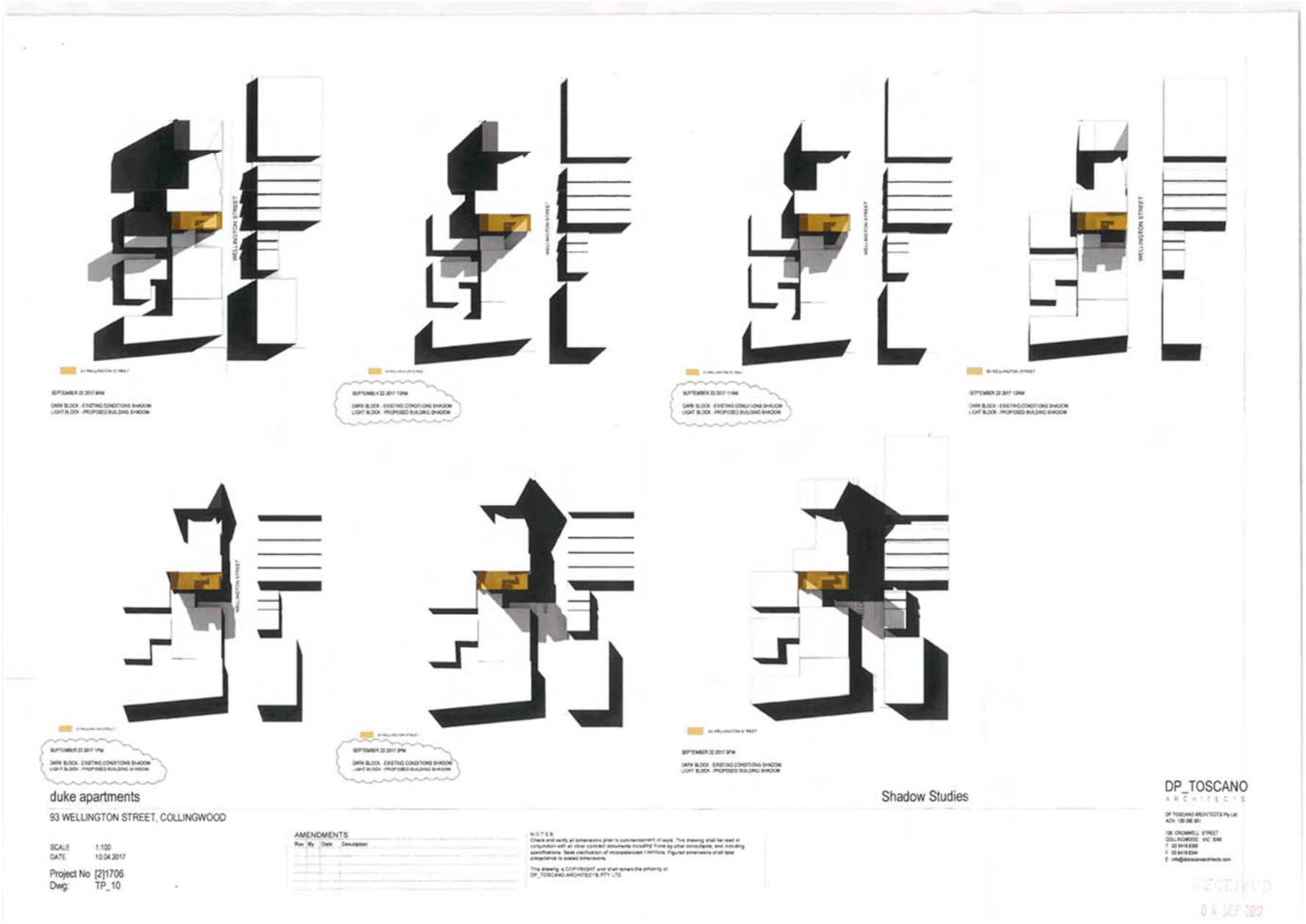
Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 2 - Original, Advertised plans (now superseeded)



Attachment 2 - Original, Advertised plans (now superseeded)



Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 2 - Original, Advertised plans (now superseeded)

duke apartments

93 WELLINGTON STREET, COLLINGWOOD

SCALE 1:100
DATE 10.04.2017

Project No [2]1706
Dwg: TP_14

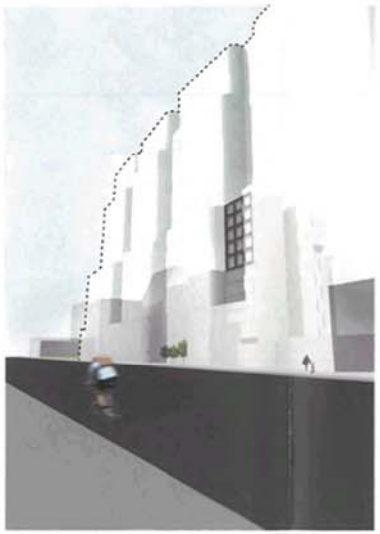
AMENDMENTS

Perspective Views

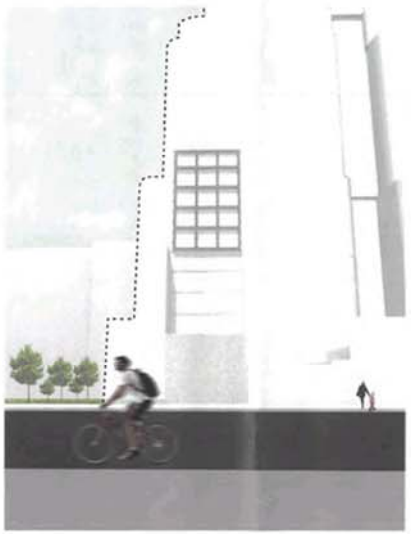
DP_TOSCANO

Attachment 2 - Original, Advertised plans (now superseeded)

View Looking North West along Wellington Street. Approved building shown as dashed outline and ghosted. Note: Approved building shown only indicatively.



View Looking South West along Wellington Street. Approved building shown as dashed outline and ghosted. Note: Approved building shown only indicatively.



View of 93 Wellington Street from Cambridge Street. Approved building shown as dashed outline and ghosted. Note: Approved building shown only indicatively.

duke apartments

93 WELLINGTON STREET, COLLINGWOOD

SCALE 1:100
DATE 10.04.2017

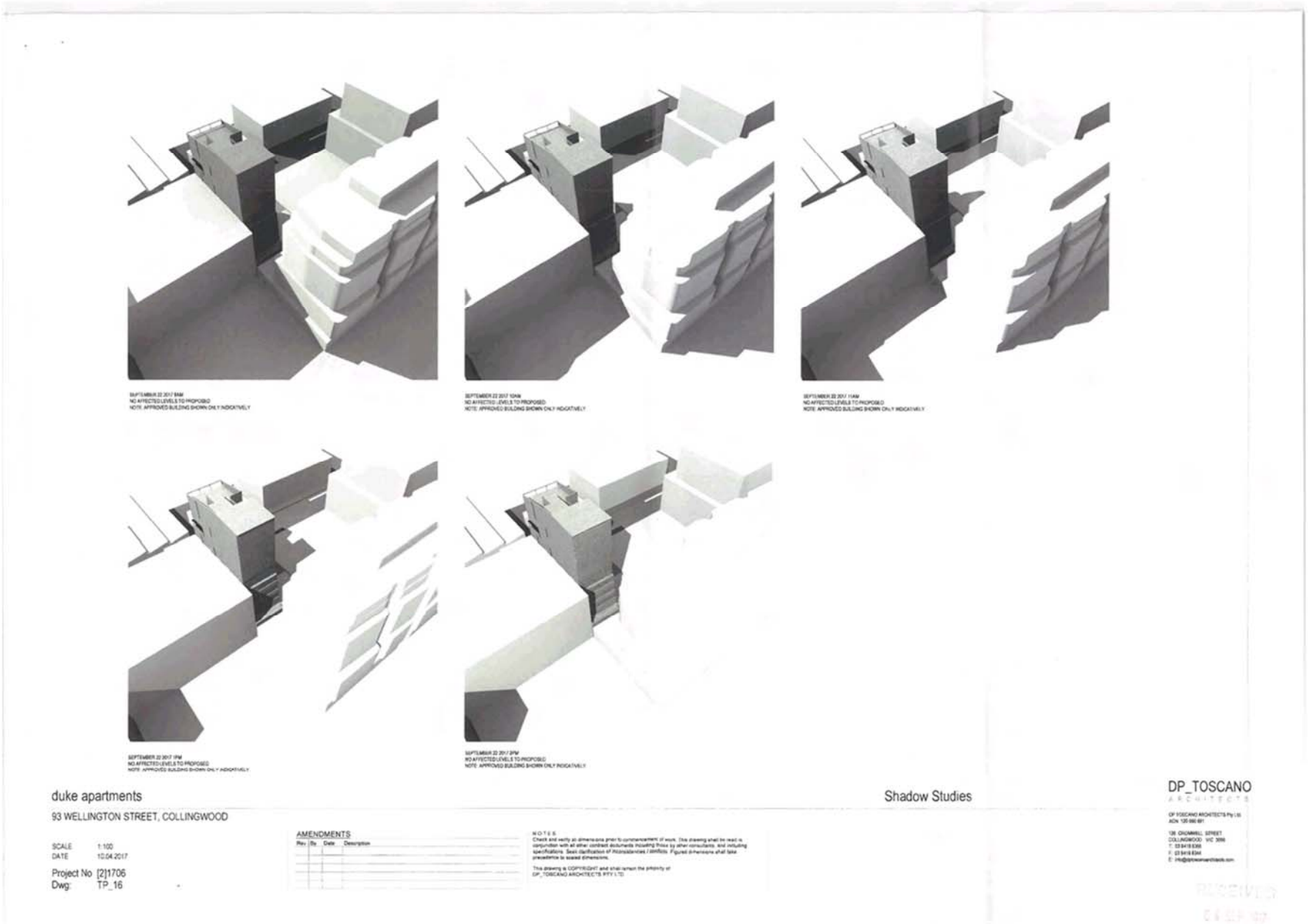
Project No [2]1706
Dwg: TP_15

AMENDMENTS

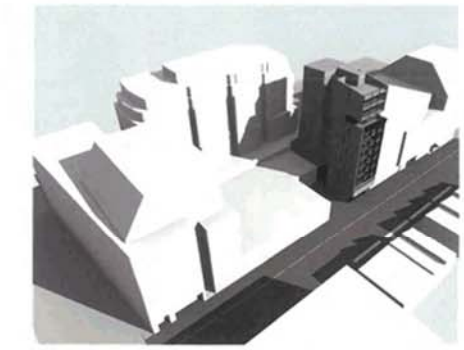
Perspective Views from Cambridge Street

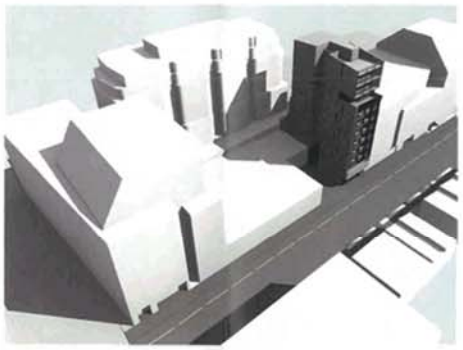
DP_TOSCANO
ARCHITECTS

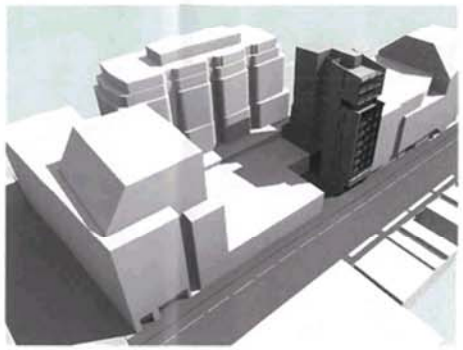
Attachment 2 - Original, Advertised plans (now superseeded)

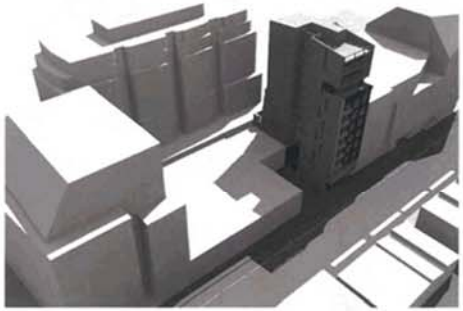


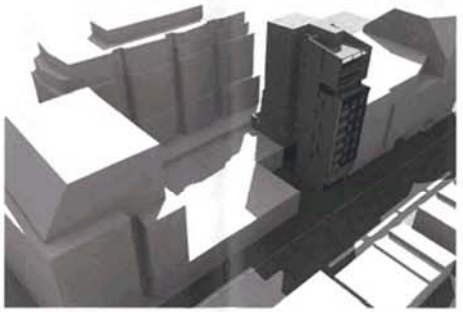
Attachment 2 - Original, Advertised plans (now superseeded)











duke apartments

93 WELLINGTON STREET, COLLINGWOOD

Shadow Studies

SCALE NTS
DATE 10.04.2017
Project No [2]1706
Dwg: TP_17

AMENDMENTS
Rev By Date Description

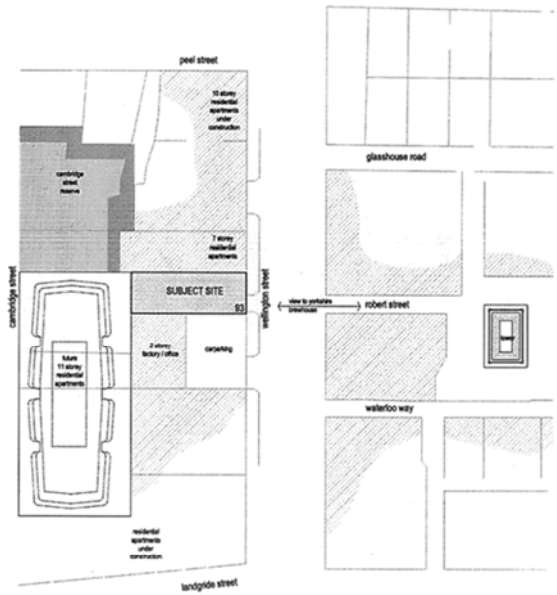
NOTES

DP_TOSCANO ARCHITECTS

RECEIVED

Attachment 2 - Original, Advertised plans (now superseeded)

Attachment 3 - Section 57A decision plans



DRAWING LIST

TP 00 site plan area summary & drawing list
TP 01 basement & ground plans
TP 02 level 1 - 3 plans
TP 03 levels 4 - 6 plans
TP 04 levels 7 - 10 & roof plans
TP 05 levels 10 - roof plans
TP 06 streetscape elevation & section
TP 07 elevations 1
TP 08 elevations 2
TP 09 section
TP 10 shadow studies
TP 11 site analysis
TP12 apartment analysis 1
TP13 apartment analysis 1
TP14 perspective view
TP15 perspective view from Cambridge Street
TP16 shadow studies
TP17 shadow studies
TP18 shadow studies

modified
deleted

Area Summary
Design Response

Level	Apartment No.	Type	Area	Balconies	Terrace	Minimum Depth	Total Apartment Area	Common Area	Gross Floor Area	cars	Brief Analysis Apartment Compliance	Accessibility Entry Door	Path 1.2m	Adaptable Bathroom	Storage In Dwelling (m3)	Detailed Analysis Main Bedroom Dimensions (3.4x3)	Other Bedrooms (3x3)	Living Room Width >3.6	Living Room Area >12m2	Ceiling Height	Habitable Room Window Size >1.5m	Natural Cross Ventilation	Breeze Path Length (m)	Cross Ventilation Compliance
B									108															
G								45	205	10														
1	1	3 bed	126	20		3.6	156		252		✓	920	✓	✓	31.3	✓	✓	✓	✓	2.7	✓	✓	10	✓
	2	3 bed	156	16	31	2.7	207		271		✓	920	✓	✓	23.7	✓	✓	✓	✓	2.7	✓	✓	10	✓
	3	3 bed	155	22		3.2	167		253		✓	920	✓	✓	33.4	✓	✓	✓	✓	2.7	✓	✓	12	✓
2	1	3 bed	164	22		3.2	186		252		✓	920	✓	✓	33.4	✓	✓	✓	✓	2.7	✓	✓	12	✓
	2	1 bed	163	22		3.2	185		231		✓	920	✓	✓	33.4	✓	✓	✓	✓	2.7	✓	✓	12	✓
	3	1 bed	163	22		3.2	184		230		✓	920	✓	✓	33.4	✓	✓	✓	✓	2.7	✓	✓	12	✓
3	1	3 bed	152	35		3.2	187		226		✓	920	✓	✓	33.4	✓	✓	✓	✓	2.7	✓	✓	12	✓
	2	1 bed	147	12		3.2	159		192		✓	920	✓	✓	33.4	✓	✓	✓	✓	2.7	✓	✓	12	✓
	3	1 bed	147	12		2.4	159		192		✓	920	✓	✓	24.2	✓	✓	✓	✓	2.7	✓	✓	11	✓
	4	1 bed	147	12		2.4	159		192		✓	920	✓	✓	24.2	✓	✓	✓	✓	2.7	✓	✓	11	✓
R			36					111	192															
Totals							1769	152	3632		100%	100%	100%	100%										100%

APARTMENTS 18
CARS 10

duke apartments

93 WELLINGTON STREET, COLLINGWOOD

SCALE 1:500
DATE 10.04.2017

Project No [2]1706
Dwg: TP_00

AMENDMENTS

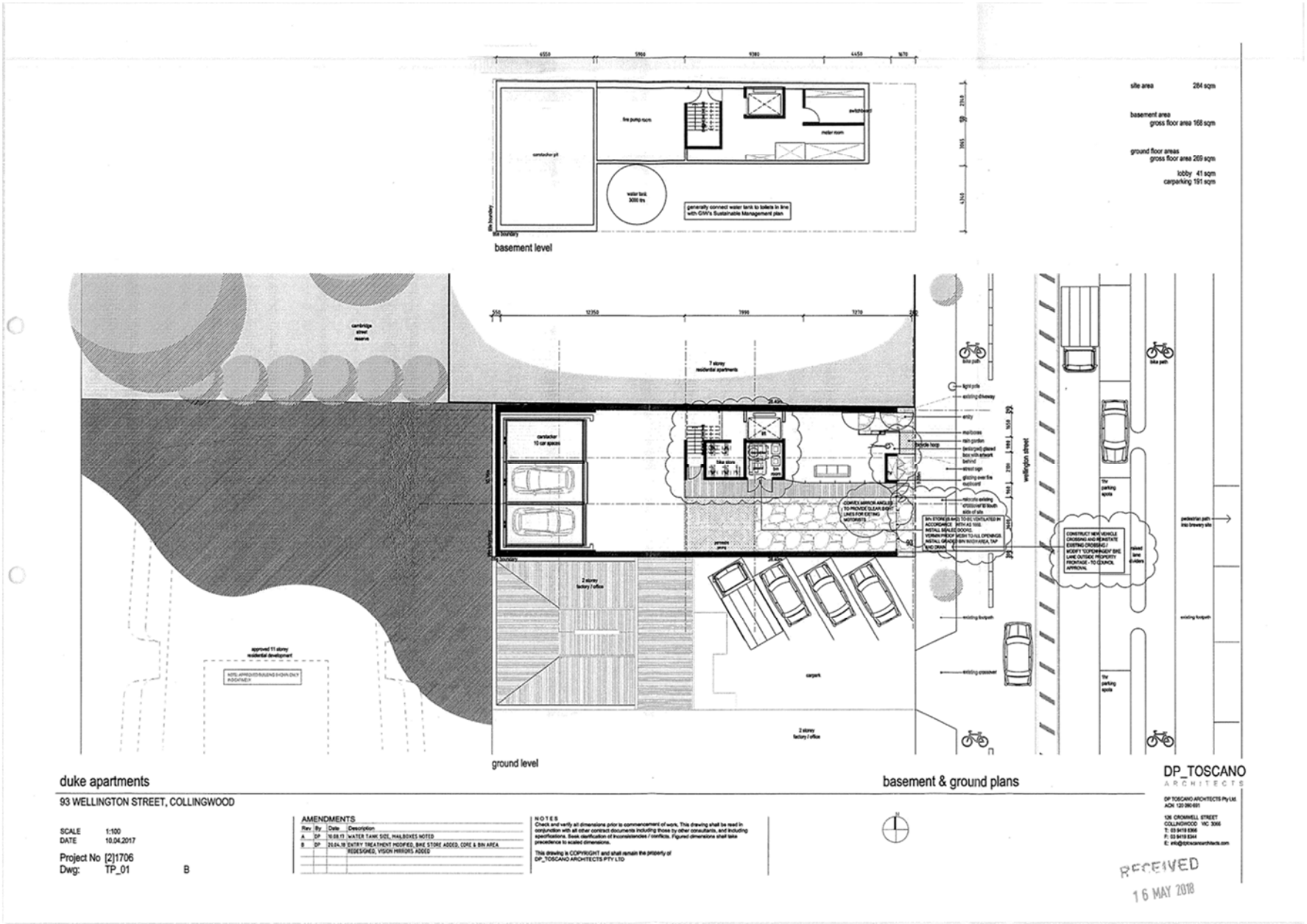
Rev	By	Date	Description
A	DP	30.04.18	SCHEDULE & DRAWING LIST UPDATED

NOTES
Check and verify all dimensions prior to commencement of work. This drawing shall be read in conjunction with all other contract documents including those by other consultants, and including specifications. Seek clarification of inconsistencies / conflicts. Figured dimensions shall take precedence to scaled dimensions.

locality plan area summary & drawing list

DP_TOSCANO
ARCHITECTS
DP TOSCANO ARCHITECTS Pty Ltd.
ACN: 120 090 651
126 CROWNELL STREET
COLLINGWOOD VIC 3066
T: 03 9419 8366
F: 03 9419 8344
E: info@dptoscanoarchitects.com

Attachment 3 - Section 57A decision plans

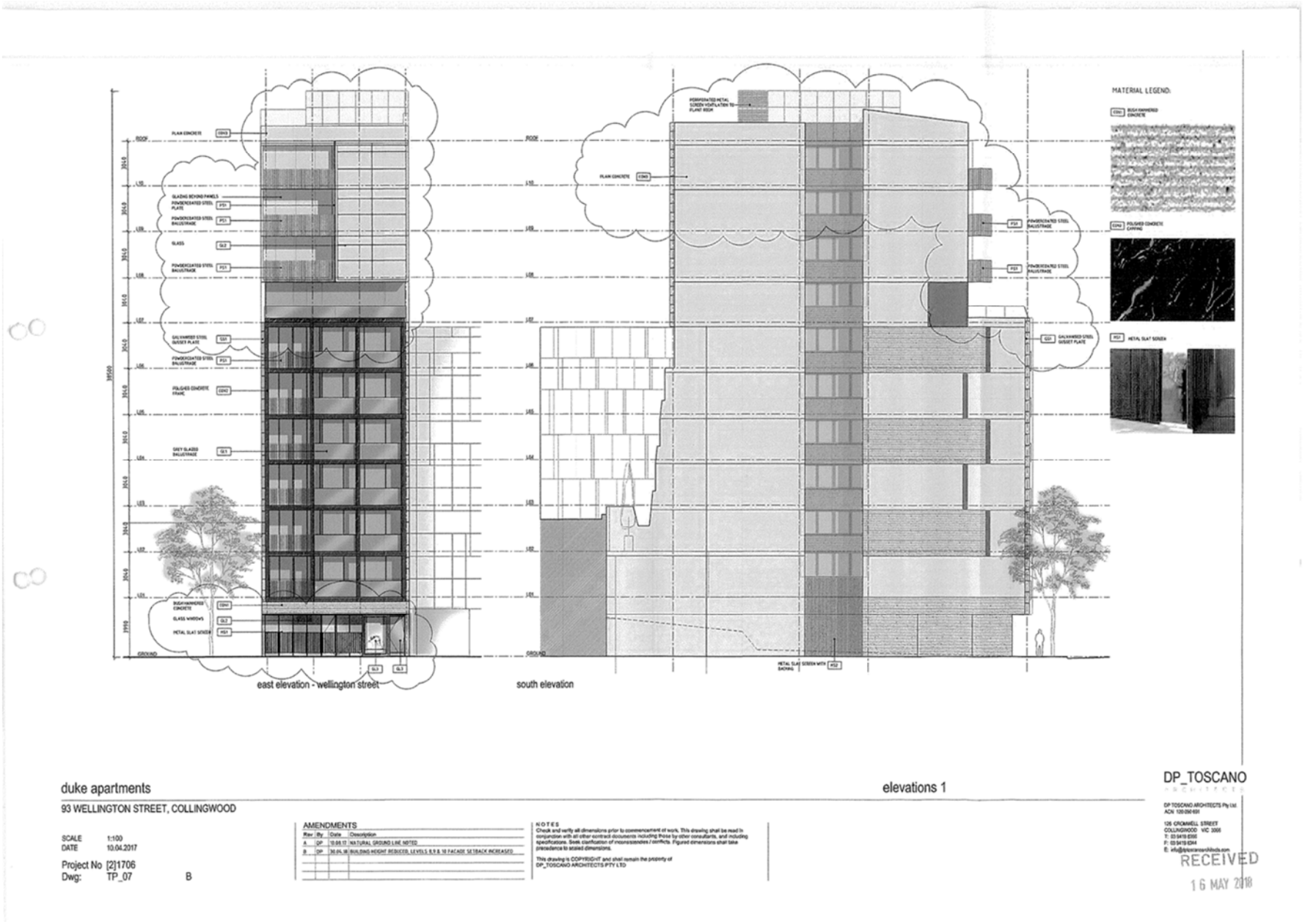


Attachment 3 - Section 57A decision plans

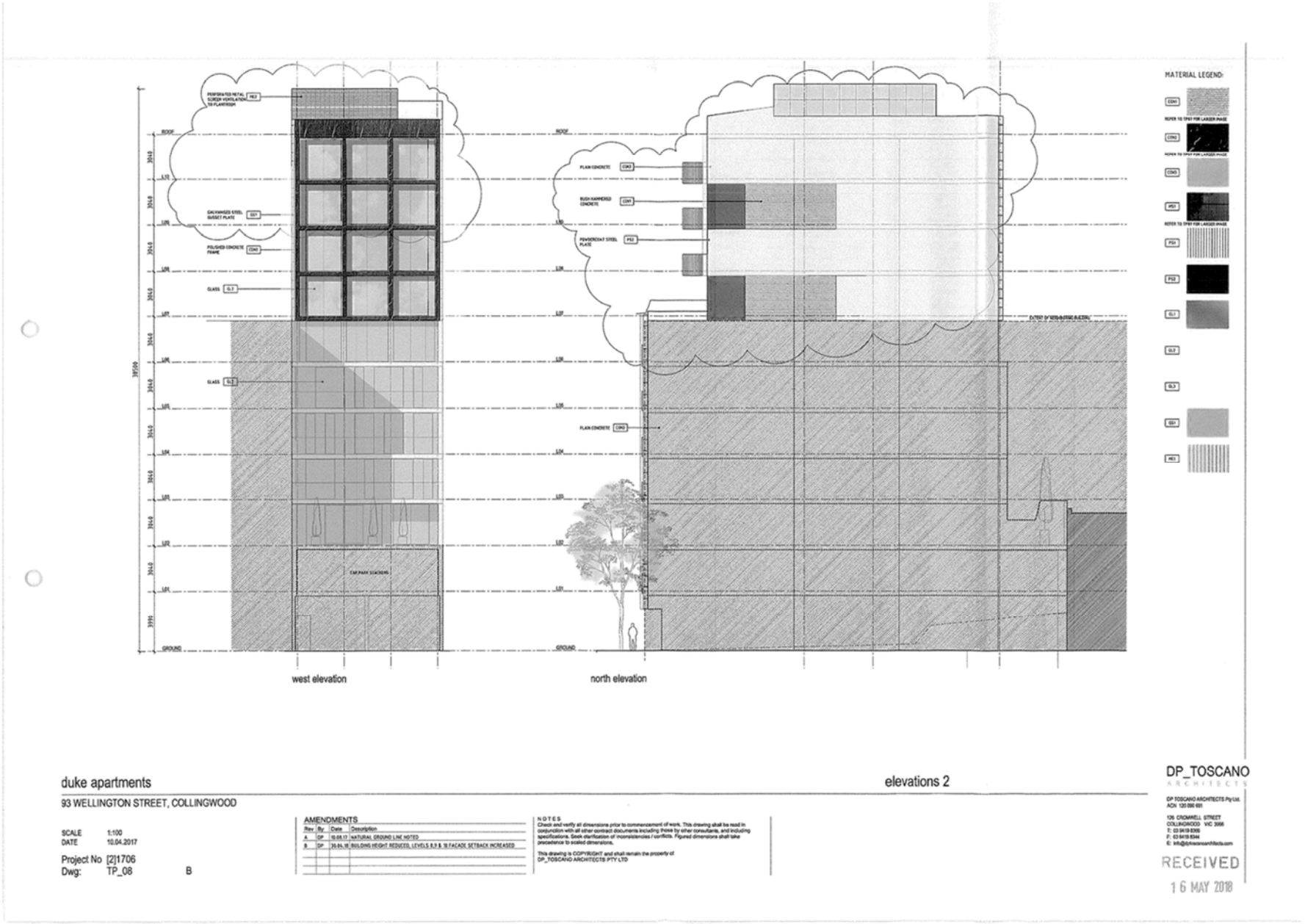
Attachment 3 - Section 57A decision plans

Attachment 3 - Section 57A decision plans

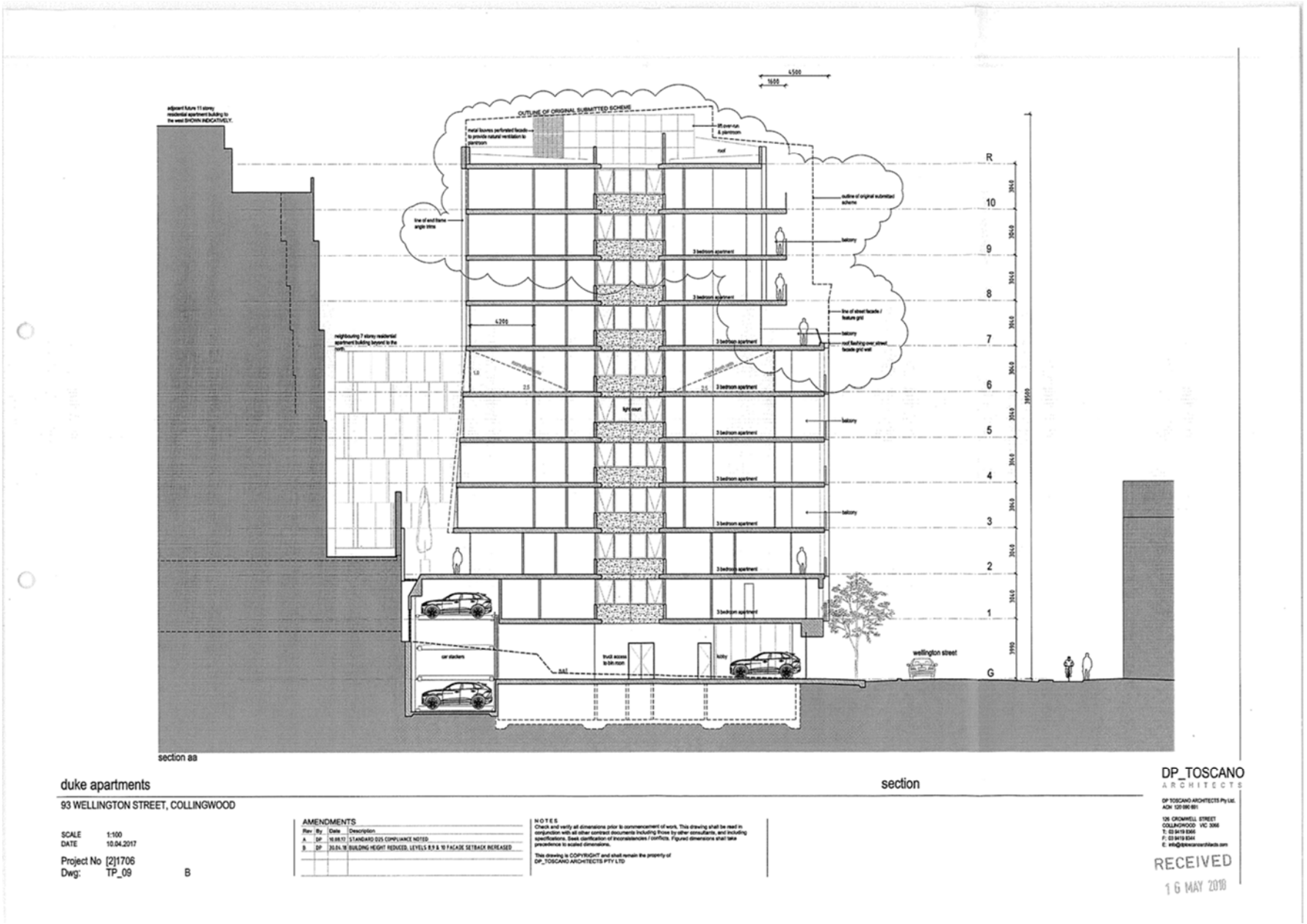
Attachment 3 - Section 57A decision plans



Attachment 3 - Section 57A decision plans



Attachment 3 - Section 57A decision plans



Attachment 4 - Strategic Transport Unit comments on Section 57A Amended Plans

Strategic Transport Unit comments on Section 57A Amended Plans:

1. **Dimensions of bicycle storage spaces, and relevant access ways noted to demonstrate compliance with Australian Standard AS2890.3 or to the satisfaction of the Responsible Authority.**

   This has not been supplied and remains outstanding.

2. **All resident bicycle parking facilities to include a minimum of 20% of ground level (horizontal) spaces.**

   This has not been addressed, however given the confined site I accept all hanging spaces is acceptable in this instance.

3. **Resident bicycle parking spaces relocated to a secure location, or a more secure design for the current location shown. Spaces should be provided in a location safe from car movements.**

   Providing Condition 1 can be satisfied, this looks like it's been addressed.

4. **2 visitor bicycle parking spaces provided in a location easily accessed by visitors to the site.**

   I see a notation has been added next to the 'rain garden'. I can't see the actual hoop shown, or dimensions. If it is on top of the rain garden itself I'd imagine Euan might have some comments as to whether a rain garden can cope with bikes being moved back and forth over the top of it. More detail is required.

5. **All visitor bicycle parking facilities to be ground level (horizontal) spaces. –** See 4.

6. **All necessary works to the Copenhagen bicycle lane to ensure it remains safe for all road users following the relocation of the existing crossover.**

   I'm not sure if this has been provided separately, but nothing has been shown on the plans.

   It looks like the existing splitter to the south-east of the proposed crossover will prevent vehicle movements into the driveway, so at least part of this will need to be removed. This will result in an unacceptably large gap between the splitter island to the north and remainder of the splitter island to the south, so the splitter island to the north should be extended south past the redundant crossover. There is also a man-hole/service pit and drain that will need to be dealt with to put the new vehicle crossover in place. The relevant people in Engineering will need to consider these matters too.

Attachment 5 - Internal Urban Design Advice on original plans

CITY OF YARRA

MEMO

TO:	**Sarah Thomas**
FROM	**David Pryor**
DATE:	**6 November 2017**
SUBJECT:	**93 Wellington Street Collingwood**
APPLICATION NO:	**PLN17/0512**
DESCRIPTION:	Construction of a 12 storey building

Urban design advice has been sought in relation to:
- building height and massing;
- design detailing and materiality; and
- any proposed capital works in the vicinity.

COMMENTS SUMMARY

This proposal is not supported in its current form, as outlined below. Recommended amendments include the following:
- reduce the building's height by removing two typical levels;
- increase the front setback of the upper levels to 5m to the balcony face;
- retain and upgrade the front and south wall of the existing building if possible, and modify the proposed building's massing to suit;
- further information on finishes, particularly the metal slat screen at ground floor level;
- review the ground floor level to maximise active frontage, passive surveillance and interest for pedestrians.

There are no known capital works proposed for this area.

Site and Context

The site sits within a Non Residential area, where Clause 21.08 calls for development to *improve the interface of development with the street*.

The area is zoned MUZ.

DDO2 Main Roads and Boulevards applies to this section of Wellington St.

A single-storey brick art deco building currently occupies the southeast corner of the site.

No heritage overlay applies.

Except for recent approvals, existing buildings in Wellington St are typically 1 to 3 storeys tall. 7 and 9 storey buildings occupy land between the subject site and Peel St.

Attachment 5 - Internal Urban Design Advice on original plans

Proposed Built Form

The main building form extends out to the front and both side boundaries up to a height of 8 storeys (about 26.3m), with the wall face set back 2.2 to 3.3m behind full-width, solid-flanked balconies. Above this, 3 levels are set back at least 1.4m from the front (east) boundary, with the wall face set back an additional 1.1 to 2.4m behind full-width balconies. This extends up to a height of about 34.6m to the roof terrace balustrade. The top (twelfth) storey is set back 15.5m, except for the lift core, which is set back about 7.5m from the front boundary, 5m from the south and 2m from the north.

The proposal would have a plot ratio of about 9:1 (excluding balconies and basement).

A 4.5 metre x 2.75 metre light court abuts the south boundary.

Built Form Assessment

The retention of the site's 10m width is commended, as it contributes a narrow grain of subdivision and results in an attractively slender form.

I support the introduction of a substantial building concealing most of the existing grey-painted blank wall on the north boundary, provided that any resultant blank wall on the south boundary is less extensive and more attractive than the existing one. However, it is not necessary to conceal the entire extent of the existing blank wall, and the current proposal, being taller than its neighbour, creates a new north-facing blank wall as well as increasing the height of blank wall to the south.

The light court is valuable in dividing the south wall into two slender components, of which it is mainly the east component which impacts on views from the public realm.

The proposal is taller than the 7-storey building to its north or the 9-storey building at the corner of Peel St. At street intersections, there is often an argument for height to step up to mark the corner of the block. That is not the case for the subject site, which is located mid-block. Here, its greater height undermines the built form hierarchy of the streetscape.

The proposal results in an abrupt height transition to the south, where development on the adjoining boundary is currently limited to a single storey building at the rear of the site.

To the east, the proposal would have a significant impact on the pedestrian lane leading into the Yorkshire Brewery site, limiting sky views but not overshadowing the lane until after 3pm (at the equinox).

The proposal overshadows the east footpath of Wellington St from about 1.50pm on the equinox.

Approval of a 12-storey building extending to the full width of the subject site would set a precedent inviting similar development south of the site. If sites to the south were similarly developed, the result could be described as a wall of towers, the cumulative impact of which would be detrimental to the streetscape, having an overbearing presence, lacking glimpses of the sky between buildings, reducing solar access for cyclists, pedestrians and occupants on the east side of the street and creating a more asymmetrical streetscape.

It is recommended that at least two typical levels be deleted from the building, resulting in a maximum height of 10 storeys and a street wall height of 6 storeys. Being one storey lower than the street wall of 95 Wellington St, this would reinforce the pattern of subdivision and achieve a better hierarchy of built form along the street, enabling taller forms to mark street corners. This height (in the order of 20m) would result in a *height:street width* ratio of about 1:1, which is considered appropriate for Wellington St.

The 3 storeys above this should be set back at least 5m to the balcony face, so as to be recessive in relation to the main form and to avoid competing with taller forms at street corners. The top storey, being well set back, is not considered to have a significant additional impact on the nearby public realm.

Alternatively, if the front of the existing building is retained, a 7 storey form, set back at least 1m from the front boundary, would be acceptable. Again, additional storeys should be set back at least 5m from the front boundary. This option would allow a similar yield to the above recommendation, while benefiting from the retention of the front of the existing building.

With either of the above options, the reduced built form would be more consistent with Clause 21.05 Built Form, where Strategy 17.2 states that: *Development on strategic redevelopment sites or within activity centres should generally be no more than 5-6 storeys unless it can be demonstrated that the proposal can achieve specific benefits such as:*

- *Significant upper level setbacks*
- *Architectural design excellence*
- *Best practice environmental sustainability objectives in design and construction*
- *High quality restoration and adaptive re-use of heritage buildings*
- *Positive contribution to the enhancement of the public domain*
- *Provision of affordable housing*.

I understand that the subject site could be considered a strategic redevelopment site.

Building Design and Finishes

With the above-recommended reductions in built form, the proposed design would be broadly supported, noting the use of integral finishes rather than reliance on applied paint, and the slenderness and shaping of the main form. However, without such reductions, the proposal would be very prominent – particularly as viewed from the southeast, warranting correspondingly high design standards – beyond those currently demonstrated. Further, the current proposal would protrude above is surroundings in distant views from various directions. The left hand perspective on TP14 (looking from the north) gives a sense of this. The flush, blank side walls present a challenge to achieving a building top which presents well from all directions.

An important strength of the design is the recess at Level 8, reinforced by a section of black metal cladding, gives shape to the top of the building and is supported. (This black metal should wrap onto the front of the building, and this should be noted on the East Elevation.)

Consideration has been given to how the building will present in the round. For example, bush hammered concrete wraps from the front to the side elevation.

For buildings adopting a restrained, modernist idiom, materiality is particularly important, warranting the provision of samples, 3d sketches of typical junctions and photographs of precedents.

Further information is warranted on the proposed metal slat screen at ground floor level, as this finish will dominate the pedestrian's experience of the building. The screen needs to be finely detailed and reasonably transparent, with consideration given to how the building presents at night.

While no heritage overlay applies to the site, there would be benefit in retaining and upgrading the front and south wall of the existing building, which contributes character to the neighbourhood and a link to its history. Its retention would result in a more varied streetscape in an area where modern buildings are becoming predominant, and it would reduce the extent of concrete on the south

Attachment 5 - Internal Urban Design Advice on original plans

boundary. The tactile qualities of the existing brickwork would contribute to the pedestrian experience.

Street Interface

The current proposal does not achieve a positive interface with the footpath. Active frontage is limited to a pedestrian door, a cyclists' door and a narrow window, totalling about 40% of the ground floor frontage. This is largely the result of the proposed intensity of development. There may be an opportunity to increase interaction between interior and exterior by providing glazing above the fire cabinet.

The ground floor appears to incorporate attractive paving, mitigating the negative impact of the carpark entry, but this paving is not noted on the plan.

At Ground Floor level, the proposal is set back about 1m. This is consistent with the adjoining building and is supported, subject to ensuring sight-impaired can navigate past the building. The setback should be dimensioned on the plan. There may be an opportunity to use some of this setback for planting.

The above advice is limited to urban design issues, and does not address ESD, amenity or heritage, for example.

Attachment 6 - Internal urban design advice on April 2018 plans

Internal urban design advice on April 2018 plans:

This appears to be consistent with your email & with what we discussed Friday, except that the 4.5m setback should apply to the outermost wall face – not a grid line behind the façade. It could then be supported from an urban design perspective. We would not want to see any encroachment beyond this envelope.

Attachment 7 - Council's Engineering comments

CITY OF YaRRA

MEMO

To:	**Sarah Thomas**	
From:	**Mark Pisani**	
Date:	**17 November 2017**	
Subject:	**Application No:**	**PLN17/0512**
	Description:	**12 Storey Building**
	Site Address:	**93 Wellington Street, Collingwood**

I refer to the above Planning Application received on 9 October 2017 and the accompanying report prepared by One Mile Grid traffic engineering consultants in relation to the proposed development at 93 Wellington Street, Collingwood. Council's Engineering Services unit provides the following information:

CAR PARKING PROVISION

Proposed Development

Under the provisions of Clause 52.06-5 of the Yarra Planning Scheme, the development's parking requirements are as follows:

Proposed Use	Quantity/ Size	Statutory Parking Rate	No. of Spaces Required	No. of Spaces Allocated
Three-bedroom dwelling	10	2 spaces per dwelling	20	10
Residential visitors	10 Dwellings	1 space per 5 dwellings	2	0
		Total	22 Spaces	10 Spaces

The site would have a total parking shortfall of 12 spaces (10 resident spaces and two residential visitor spaces). To reduce the number of car parking spaces required under Clause 52.06-5 (including to reduce to zero spaces), the application for the car parking reduction must be accompanied by a Car Parking Demand Assessment.

Car Parking Demand Assessment

In reducing the number of parking spaces required for the proposed development, the Car Parking Demand Assessment would assess the following:

- *Parking Demand for the Three-Bedroom Dwellings*. One Mile Grid has sourced car ownership rates for the Collingwood area from the 2011 census conducted by the Australian Bureau of Statistics. For three-bedroom flat type dwellings in Collingwood, the average car ownership for this size of dwelling is 1.37 vehicles per dwelling. The data also recorded that some 57.8% of three-bedroom dwellings had one or less cars. This suggests that there is a market for dwellings that contained one or no on-site spaces. There is no objection to the provision of one space per three-bedroom dwelling.
- *Parking Demand for Residential Visitors*. Peak parking for residential visitors generally occurs on weekday evenings and at weekends. The applicant proposes to accommodate all residential visitor parking off-site, since the site will be containing mechanical parking - not practical for use by residential visitors. For mixed use and multi-unit residential developments that are located along or near activity centres, we would normally encourage applicants to

provide some residential visitor parking on-site. In this instance, the proposed car parking arrangement cannot practically allow for residential visitor parking to be accommodated on the property. In the context of the surrounding area, the demand of two residential visitor parking spaces off-site should not be detrimental to existing on-street parking conditions in the area.

- *Availability of Public Transport in the Locality of the Land*. The site is within walking distance of trams services operating along Smith Street-Gertrude Street. Victoria Parade tram services are accessible to and from the site by foot.

Appropriateness of Providing Fewer Spaces than the Likely Parking Demand
Clause 52.06 lists a number of considerations for deciding whether the required number of spaces should be reduced. For the subject site, the following considerations are as follows:

- *Availability of Car Parking*. One Mile Grid had conducted on-street parking occupancy surveys of the surrounding area on Thursday 17 August 2017 from 4:00pm to 8:00pm and on Saturday 19 August 2017 from 10:00am to 4:00pm. The survey area encompassed sections of Wellington Street, Langridge Street, Derby Street, Peel Street, Gipps Street, Cambridge Street, Oxford Street and Rokeby Street. The extent and times of the survey are considered appropriate. An inventory of up to 569 on-street parking spaces was identified. The Thursday survey recorded a minimum of 127 vacant spaces at 4:00pm and the Saturday survey recorded a minimum of 161 spaces at 12:00pm. Any overflow of short-stay parking from the development (two residential visitor spaces) can be accommodated on-street.
- *Relevant Local Policy or Incorporated Document*. The proposed development is considered to be in line with the objectives contained in Council's *Strategic Transport Statement*. The site is ideally located with regard to sustainable transport alternatives and the reduced provision of on-site car parking would potentially discourage private motor vehicle ownership and use.

Adequacy of Car Parking
From a traffic engineering perspective, the waiver of 10 resident spaces and two residential visitor spaces is considered appropriate in the context of the development and the surrounding area. The provision of one space per three-bedroom dwelling reflects the statistical trend for car ownership for three-bedroom flat type dwellings in the Collingwood area.

Engineering Services has no objection to the reduction in the car parking requirement for this site.

TRAFFIC GENERATION
Trip Generation
The traffic generation for the site adopted by One Mile Grid is as follows:

Proposed Use	Adopted Traffic Generation Rate	Daily Traffic	Peak Hour	
			AM	PM
Residential (10 three-bedroom dwellings)	4.0 vehicle trips per dwelling per day Peak hour volume is 10% of daily traffic volume	40 trips	4 trips per hour	4 trips per hour

The traffic volumes generated are not unduly high and can be easily accommodated in the surrounding road network.

Queuing and Conflict
The development's parking would be contained in a shuffle type car stacker. The internal one-lane accessway is approximately 15 metres in length (from the Wellington Street alignment).

In the AM peak hour, there would be 3 departure trips and 1 arrival trips. In the PM peak hour, there would be 2 departure trips and 2 arrival trips.

Attachment 7 - Council's Engineering comments

It is highly unlikely that vehicle queuing would take place outside the curtilage of the property.

In relation to vehicle conflict within the accessway, this would analogous to a single lane Right of Way environment. Given the low peak hour traffic volumes, we envisage the potential for vehicle conflict to be very remote.

DEVELOPMENT LAYOUT DESIGN
Layout Design Assessment

Item	Assessment
Access Arrangements	
Development Entrance	The accessway has a width of 3.6 metres and satisfies the Australian/New Zealand Standard AS/NZS 2890.1:2004 and *Design standard 1 – Accessways* of Clause 52.06-9.
Visibility	The accessway does not have 2.0 metre by 2.5 metre splays as required by *Design standard 1*. A flashing warning light is not acceptable as it is the responsibility of motorists to watch out and give way to pedestrians as they enter a Public Highway, rather than vice versa. To address this item, a convex mirror should be installed to assist exiting motorists in viewing pedestrians walking along the Wellington Street footpath.
Headroom Clearance	Minimum headroom clearance has not been dimensioned. Should be indicated on the drawings.
Car Parking Modules and Car Stacker	
Car Stacker Device	The car stacker specifications appended to the report are represented at a small scale and the text is minute. The specifications need to be resubmitted at a larger scale before we will assess any further.
Vehicle Clearance Height	Comment to be provided upon receipt of resubmitted specifications.
Floor to Ceiling Height	Not dimensioned. This measurement needs to be provided on the drawings.
Vehicle Turning Movements	The swept path diagrams provided in the One Mile Grid report are minute and need to be resubmitted at a larger scale. Further comment will be provided upon receipt of resubmitted diagrams.

IMPACT ON COUNCIL ROAD ASSETS
The construction of the new buildings, the provision of underground utilities and construction traffic servicing and transporting materials to the site will impact on Council assets. Trenching and areas of excavation for underground services invariably deteriorates the condition and integrity of footpaths, kerb and channel, laneways and road pavements of the adjacent roads to the site.

It is essential that the developer rehabilitates/restores laneways, footpaths, kerbing and other road related items, as recommended by Council, to ensure that the Council infrastructure surrounding the site has a high level of serviceability.

The construction of a new vehicle crossing and the reinstatement of the redundant vehicle crossing will necessitate modification works to the Copenhagen bicycle facility outside the property road frontage.

Attachment 7 - Council's Engineering comments

ENGINEERING CONDITIONS
Convex Mirrors

- Convex mirrors are to be installed at the development's entrance and be positioned to view pedestrians along the Wellington Street footpath for motorists exiting the site. The mirrors must be contained within the curtilage of the property.

Car Stacker Device

- The car stacker device must be installed, operated and maintained in accordance with the manufacturer's specifications and requirements.
- No pipes, ducting or protrusions from the ceiling or walls are to be installed above or within the space clearance envelopes for the car stacker device.

Civil Works

Upon the completion of all building works and connections for underground utility services,

- The redundant vehicle crossing on the property's Wellington Street frontage must be demolished and reinstated to Council's satisfaction and at the Permit Holder's cost.
- The new vehicle crossing on the west side of Wellington Street must be designed and constructed in accordance with Council's Standard Drawings, Council's *Infrastructure Road Materials Policy* and engineering requirements.
- To construct the new vehicle crossing, a new side entry pit is to be constructed with a pipe extension to one side of the new vehicle crossing to Council's satisfaction. A design for these works must be submitted to Council for assessment and approval, and should incorporate alterations/works to the existing pit in the new vehicle crossing. The cost of the new pit, pipe extension and alterations to existing drainage infrastructure is to be funded by the Permit Holder.
- The footpath along the property's Wellington Street frontage must be stripped and re-sheeted to Council's satisfaction and at the Permit Holder's cost. The footpath must have a cross-fall of 1 in 40 or unless otherwise specified by Council.
- The raised concrete barrier for the Copenhagen lane is to be extended across the reinstated vehicle crossing to Council's satisfaction and at the Permit Holder's expense.
- Any modifications made to the Copenhagen lane bicycle infrastructure by the developer must obtain authorisation and approval from Council. All reinstatements and pavement markings associated with the Copenhagen lane must be done to Council's satisfaction and at the Permit Holder's cost.

Access into Site

- The applicant must provide swept path diagrams for the B99 design vehicle entering and exiting the property, demonstrating that turning vehicles would be clear of the concrete barriers of the Copenhagen lane. The existing Copenhagen lane concrete barrier and extension of the concrete barrier across the reinstated vehicle crossing must be accurately shown with the swept path diagrams.

Road Asset Protection

- Any damaged roads, footpaths and other road related infrastructure adjacent to the development site as a result of the construction works, including trenching and excavation for utility service connections, must be reconstructed to Council's satisfaction and at the developer's expense.

Construction Management Plan

- A Construction Management Plan must be prepared and submitted to Council. The Plan must be approved by Council prior to the commencement of works. A detailed dilapidation

Attachment 7 - Council's Engineering comments

report should detail and document the existing and post construction conditions of surrounding road infrastructure and adjoining private properties.

Impact of Assets on Proposed Development

- Any services poles, structures or pits that interfere with the proposal must be adjusted, removed or relocated at the owner's expense after seeking approval from the relevant authority.
- Areas must be provided inside the property line and adjacent to the footpath to accommodate pits and meters. No private pits, valves or meters on Council property will be accepted.

Discharge of Water from Development

- Only roof runoff, surface water and clean groundwater seepage from above the water table can be discharged into Council drains.
- Contaminated ground water seepage into the car stacker cavities from above the water table must be discharged to the sewer system through a trade waste agreement with the relevant authority or in accordance with EPA guidelines.
- Contaminated groundwater from below the water table must be discharged to the sewer system through a trade waste agreement from the relevant sewer authority.
- Council will not permit clean groundwater from below the groundwater table to be discharged into Council's drainage system. Basements or car stacker cavities that extend into the groundwater table must be waterproofed/tanked.

NON-PLANNING ADVICE FOR THE APPLICANT

Legal Point of Discharge

The applicant must apply for a Legal Point of Discharge under Regulation 610 – Stormwater Drainage of the *Building Regulations 2006* from Yarra Building Services unit. Any storm water drainage within the property must be provided and be connected to the nearest Council pit of adequate depth and capacity (legal point of discharge), or to Council's satisfaction under Section 200 of the *Local Government Act 1989* and Regulation 610.

Clearances from Electrical Assets

Overhead power lines run along the west side of Wellington Street close to the property boundary.

The developer needs to ensure that the building has adequate clearances from overhead power cables, transformers, substations or any other electrical assets where applicable. Energy Safe Victoria has published an information brochure, *Building design near powerlines*, which can be obtained from their website:

http://www.esv.vic.gov.au/About-ESV/Reports-and-publications/Brochures-stickers-and-DVDs

Additional Comments Provided By Construction Management

Construction Advice

- Copenhagen bicycle lane on Wellington Street will impact access and any proposed crane lifting zone. Significant civil works may be required to enable construction works to take place along this frontage.
- Power lines on the Wellington Street frontage will lift crane lifting capabilities along this frontage. It is recommended that a section of these power lines are undergrounded if a crane loading zone is to be proposed for construction of the development.

Attachment 7 - Council's Engineering comments

Regards

Mark Pisani
Senior Development Engineer
Engineering Services Unit

Attachment 8 - Services Contract Unit advice on original plans

The Waste Management Plan prepared by onemilegrid dated the 23rd June 2017 for 93 Wellington Street Collingwood is unsatisfactory from the City works Branch's perspective.

The issues that need to be addressed include but may not be limited to:

1. Please provide clear information regarding who will be responsible for taking the bins to the collection point and who will be responsible for returning the bins to the bin room after collection

2. Please specify the size (M2) of the bin storage area

3. Please specify how the bins will be cleaned, how often the bins will be cleaned and who will clean the bins

4. Please specify the washing facilities in the bin room and the drain connection to sewer

5. Please specify the ventilation system for the bin room

6. Please specify arrangements for vermin control

If you have any queries please give me a call

Joseph Agostino
Project Officer
City Works
Yarra Operations Depot, Clifton Hill

City of Yarra PO Box 168 Richmond 3121
T(03) 9205 5540 F(03) 8417 6666
E Joe.Agostino@yarracity.vic.gov.au W www.yarracity.vic.gov.au

Attachment 9 - ESD Advisor response to original plans

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

ESD in the Planning Permit Application Process

Yarra City Council's planning permit application process includes Environmentally Sustainable Development (ESD) considerations. This is now supported by the ESD Local Policy Clause 22.17 of the Yarra Planning Scheme, entitled *Environmentally Sustainable Development*.

The Clause 22.17 requires all eligible applications to demonstrate best practice in ESD, supported by the Built Environment Sustainability Scorecard (BESS) web-based application tool, which is based on the Sustainable Design Assessment in the Planning Process (SDAPP) program.

As detailed in Clause 22.17, this application is a 'large' planning application as it meets the category *Residential 1. Ten or more dwellings*.

What is a Sustainable Management Plan (SMP)?
An SMP is a detailed sustainability assessment of a proposed design at the planning stage. An SMP demonstrates best practice in the 10 Key Sustainable Building Categories and;

- Provides a detailed assessment of the development. It may use relevant tools such as BESS and STORM or an alternative assessment approach to the satisfaction of the responsible authority; and
- Identifies achievable environmental performance outcomes having regard to the objectives of Clause 22.17 (as appropriate); and
- Demonstrates that the building has the design potential to achieve the relevant environmental performance outcomes, having regard to the site's opportunities and constraints; and
- Documents the means by which the performance outcomes can be achieved.

An SMP identifies beneficial, easy to implement, best practice initiatives. The nature of larger developments provides the opportunity for increased environmental benefits and the opportunity for major resource savings. Hence, greater rigour in investigation is justified. It may be necessary to engage a sustainability consultant to prepare an SMP.

Assessment Process:

The applicant's town planning drawings provide the basis for Council's ESD assessment. Through the provided drawings and the SMP, Council requires the applicant to demonstrate best practice.
The following comments are based on the review of the architectural drawings, prepared by *DP Toscano* (received 4th Sept 2017) and the accompanying SMP, prepared by *GIW Environmental Solutions* (prepared 16th June 2017).

Attachment 9 - ESD Advisor response to original plans

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

Table of Contents

Attachment 9 - ESD Advisor response to original plans

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

Assessment Summary:

Responsible Planner:		Sarah Thomas	
ESD Advisor:		Euan Williamson	
Date:	31.10.2017	Planning Application No:	PLN17/0512
Subject Site:		93 Wellington Street, Collingwood	
Site Area:	Approx. 285m^2	Site Coverage:	100%
Project Description:		Twelve storey building comprising 10 dwellings.	
Pre-application meeting(s):		None.	

The standard of the ESD largely meets Council's Environmental Sustainable Design (ESD) standards. Should a permit be issued, the following ESD commitments (1) and deficiencies (2) should be conditioned as part of a planning permit to ensure Council's ESD standards are fully met.

Furthermore, it is recommended that all ESD commitments (1), deficiencies (2) and the outstanding information (3) are addressed in an updated SMP report and are clearly shown on Condition 1 drawings. ESD improvement opportunities (4) have been summarised as a recommendation to the applicant.

(1) Applicant ESD Commitments:
- Minimum 6.5 Star average NatHERS Star rating for dwellings.
- A STORM report with a 114% STORM score has been submitted that demonstrates best practice and relies on ~110m^2 of roof connected to 3,000 litres in rainwater storage for flushing of all toilets on levels 1 and 2, and an additional 62m^2 of roof terrace connected to 1.8m^2 of raingarden on the ground floor.
- Excellent cross ventilation to all dwellings, providing that every habitable room has an operable window.
- Good access to daylight to living areas and bedrooms.
- Reasonable shading to habitable room windows.
- 6 Star gas instantaneous hot water systems, or minimum 80% efficiency storage system to all dwellings.
- Communal rooftop garden with herb gardens and facilities for residents.
- 10 secure bicycle parking spaces on ground floor near lift core.
- Energy efficient lighting.
- Water efficient fixtures and taps.

(2) Application ESD Deficiencies:
There are no outstanding deficiencies identified with this project at this time.

(3) Outstanding Information:
- Ensure that all habitable rooms have at least on operable window to facilitate cross ventilation and that the operability is clearly marked in an updated set of architectural drawings.

(4) ESD Improvement Opportunities
- Consider a solar PV array to contribute to common area electricity consumption.
- Consider larger tank for more toilet connections and using rainwater for irrigation as well as for toilet flushing.
- Consider electric vehicle charging infrastructure.
- Consider low VOC internal finishes, sealants and paints, carpets and flooring, wall and ceiling coverings. Low or zero formaldehyde content in engineered timber products.

Attachment 9 - ESD Advisor response to original plans

Sustainable Management Plan (SMP)
Referral Response by Yarra City Council

- Consider that all timber to be certified by FSC as sustainable.
- Consider recycled concrete component and low embodied energy steel.
- Consider recycled materials in building components such as insulation.
- Recommend providing a composting system for dwellings.

Further Recommendations:
The applicant is encouraged to consider the inclusion of ESD recommendations, detailed in this referral report. Further guidance on how to meet individual planning conditions has been provided in reference to the individual categories. The applicant is also encouraged to seek further advice or clarification from Council on the individual project recommendations.

Attachment 9 - ESD Advisor response to original plans

1. Indoor Environment Quality (IEQ)

Objectives:

- to achieve a healthy indoor environment quality for the wellbeing of building occupants.
- to provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices.

Issues	Applicant's Design Responses	Council Comments	CAR*
Natural Ventilation and Night Purging	Excellent cross ventilation to all dwellings, providing that every habitable room has an operable window.	Ensure that all habitable rooms have at least on operable window to facilitate cross ventilation and that the operability is clearly marked in an updated set of architectural drawings.	3
Daylight & Solar Access	Good access to daylight to living areas and bedrooms	-	1
External Views	External views from all dwellings.	-	1
Hazardous Materials and VOC	No information has been submitted.	Consider low VOC internal finishes, sealants and paints, carpets and flooring, wall and ceiling coverings. Low or zero formaldehyde content in engineered timber products.	4
Thermal Comfort	Good thermal comfort is determined through a combination of good access to ventilation, balanced passive heat gains and high levels of insulation. The application proposes: - Good access to natural ventilation - Reasonable shading to protect from solar gain - Good thermal efficiency standards.	Please refer to section on, *NCC Energy Efficiency Requirements Exceeded* and *Effective Shading*	1

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 1. Indoor Environment Quality
Good Environmental Choice Australia Standards www.geca.org.au
Australian Green Procurement www.greenprocurement.org
Residential Flat Design Code www.planning.nsw.gov.au
Your Home www.yourhome.gov.au

Attachment 9 - ESD Advisor response to original plans

2. Energy Efficiency

Objectives:

- to ensure the efficient use of energy
- to reduce total operating greenhouse emissions
- to reduce energy peak demand
- to minimize associated energy costs.

Issues	Applicant's Design Responses	Council Comments	CAR*
NCC Energy Efficiency Requirements Exceeded	Minimum 6.5 Star average NatHERS Star rating for dwellings.	-	1
Hot Water System	6 Star gas instantaneous hot water systems, or minimum 80% efficiency storage system to all dwellings.	Consider gas boosted solar hot water.	4
Peak Energy Demand	Peak demand reduced through various initiatives.	-	1
Effective Shading	Only small areas of glazing exposed to west and east facing summer sun angles. Balcony overhangs and façade articulation to the western bedroom windows.	Bedrooms will be shaded by neighbouring building as well as façade articulation. Dwellings cooling loads do not exceed the 30MJ/m^2 BADS standard.	1
Efficient HVAC system	Energy efficient reverse cycle heating/cooling systems within one star of the most efficient available.	-	1
Efficient Lighting	Energy efficient lighting, and external lighting to have motion sensor controls.	-	1
Electricity Generation	No information has been submitted.	Consider a solar PV array to contribute to onsite electricity consumption.	4
Other	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 2. Energy Efficiency
House Energy Rating www.makeyourhomegreen.vic.gov.au
Building Code Australia www.abcb.gov.au
Window Efficiency Rating Scheme (WERS) www.wers.net
Minimum Energy Performance Standards (MEPS) www.energyrating.gov.au
Energy Efficiency www.resourcesmart.vic.gov.au

Attachment 9 - ESD Advisor response to original plans

3. Water Efficiency

Objectives:

- to ensure the efficient use of water
- to reduce total operating potable water use
- to encourage the collection and reuse of rainwater and stormwater
- to encourage the appropriate use of alternative water sources (e.g. grey water)
- to minimise associated water costs.

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising Amenity Water Demand	Water efficient taps and fittings throughout, including: - 4 Star toilets - 5 Star tapware - 3 Star showers <7.5 litres/min - 5 Star dishwashers	-	1
Water for Toilet Flushing	A 3,000 litre rainwater tank connected to toilets on level 1 and 2 for flushing.	Consider larger tank and connecting more toilets for flushing	4
Water Meter	Water metering for individual dwellings.	-	1
Landscape Irrigation	Native vegetation to 'majority' or landscaping to minimise the demand for watering.	Consider larger tank and using rainwater for irrigation as well as for toilet flushing.	4
Other	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 3. Water Efficiency
Water Efficient Labelling Scheme (WELS) www.waterrating.gov.au
Water Services Association of Australia www.wsaa.asn.au
Water Tank Requirement www.makeyourhomegreen.vic.gov.au
Melbourne Water STORM calculator www.storm.melbournewater.com.au
Sustainable Landscaping www.ourwater.vic.gov.au

Attachment 9 - ESD Advisor response to original plans

4. Stormwater Management

Objectives:

- to reduce the impact of stormwater runoff
- to improve the water quality of stormwater runoff
- to achieve best practice stormwater quality outcomes
- to incorporate Water Sensitive Urban Design principles.

Issues	Applicant's Design Responses	Council Comments	CAR*
STORM Rating	A STORM report with a 114% STORM score has been submitted that demonstrates best practice and relies on ~110m^2 of roof connected to 3,000 litres in rainwater storage for flushing of all toilets on levels 1 and 2, and an additional 62m^2 of roof terrace connected to 1.8m^2 of raingarden on the ground floor for filtering.	-	1
Discharge to Sewer	-	-	-
Stormwater Diversion	-	-	-
Stormwater Detention	The 3,000 litres of rainwater tanks detailed above will partially act in a detention capacity.	-	1
Stormwater Treatment	-	-	-
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 4. Stormwater Management
Melbourne Water STORM calculator www.storm.melbournewater.com.au
Water Sensitive Urban Design Principles www.melbournewater.com.au
Environmental Protection Authority Victoria www.epa.vic.gov.au
Water Services Association of Australia www.wsaa.asn.au
Sustainable Landscaping www.ourwater.vic.gov.au

Attachment 9 - ESD Advisor response to original plans

5. Building Materials

Objectives:

- to minimise the environmental impact of materials used by encouraging the use of materials with a favourable lifecycle assessment.

Issues	Applicant's Design Responses	Council Comments	CAR*
Reuse of Recycled Materials	No information has been provided.	Consider recycled materials in building components such as insulation.	4
Embodied Energy of Concrete and Steel	No information has been provided.	Consider recycled concrete component and low embodied energy steel.	1
Sustainable Timber	No information has been provided.	Consider that all timber to be certified by FSC as sustainable.	4
Design for Disassembly	No information has been provided.	Consider a small pallet of materials and construction techniques that can assist in disassembly.	4
Other	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 5. Building Materials
Building Materials, Technical Manuals www.yourhome.gov.au
Embodied Energy Technical Manual www.yourhome.gov.au
Good Environmental Choice Australia Standards www.geca.org.au
Forest Stewardship Council Certification Scheme www.fsc.org
Australian Green Procurement www.greenprocurement.org

Attachment 9 - ESD Advisor response to original plans

6. Transport

Objectives:

- to minimise car dependency
- to ensure that the built environment is designed to promote the use of public transport, walking and cycling.

Issues	Applicant's Design Responses	Council Comments	CAR*
Minimising the Provision of Car Parks	Car parking in car stackers.	-	1
Bike Parking Spaces	10 secure bicycle parking spaces on ground floor near lift core.	-	1
End of Trip Facilities	-	-	NA
Car Share Facilities	No information has been provided.	-	1
Electric vehicle charging	No information has been provided.	Consider electric vehicle charging infrastructure.	4

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 6. Transport
Off-setting Car Emissions Options www.greenfleet.com.au
Sustainable Transport www.transport.vic.gov.au/doi/internet/icy.nsf
Car share options www.yarracity.vic.gov.au/Parking-roads-and-transport/Transport-Services/Carsharing/
Bicycle Victoria www.bv.com.au

Attachment 9 - ESD Advisor response to original plans

7. Waste Management

Objectives:

- to ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development
- to ensure long term reusability of building materials.
- to meet Councils' requirement that all multi-unit developments must provide a Waste Management Plan in accordance with the *Guide to Best Practice for Waste Management in Multi-unit Developments 2010*, published by Sustainability Victoria.

Issues	Applicant's Design Responses	Council Comments	CAR*
Construction Waste Management	A CWMP with a minimum 80% recycling/reuse target for construction and demolition waste.	-	1
Operational Waste Management	Space for general waste and recycling bins.	Recommend providing a composting system for dwellings	4
Storage Spaces for Recycling and Green Waste	Area for bins can be identified on the plans.	-	1
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 7. Waste Management
Construction and Waste Management www.sustainability.vic.gov.au
Preparing a WMP www.epa.vic.gov.au
Waste and Recycling www.resourcesmart.vic.gov.au
Better Practice Guide for Waste Management in Multi-Unit Dwellings (2002) www.environment.nsw.gov.au
Waste reduction in office buildings (2002) www.environment.nsw.gov.au

Attachment 9 - ESD Advisor response to original plans

8. Urban Ecology

Objectives:

- to protect and enhance biodiversity
- to provide sustainable landscaping
- to protect and manage all remnant indigenous plant communities
- to encourage the planting of indigenous vegetation.

Issues	Applicant's Design Responses	Council Comments	CAR*
On Site Topsoil Retention	There is no productive topsoil on this site.	-	NA
Maintaining / Enhancing Ecological Value	Landscaping on terrace and ground floor will marginally improve the ecological value of the site.	-	1
Heat Island Effect	No specific information has been submitted.	-	1
Communal Spaces	Communal rooftop garden with herb gardens and facilities for residents.	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 8. Urban Ecology
Department of Sustainability and Environment www.dse.vic.gov.au
Australian Research Centre for Urban Ecology www.arcue.botany.unimelb.edu.au
Greening Australia www.greeningaustralia.org.au
Green Roof Technical Manual www.yourhome.gov.au

Attachment 9 - ESD Advisor response to original plans

9. Innovation

Objective:

- to encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

Issues	Applicant's Design Responses	Council Comments	CAR*
Significant Enhancement to the Environmental Performance	-	-	-
Innovative Social Improvements	-	-	-
New Technology	-	-	-
New Design Approach	-	-	-
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 9. Innovation
Green Building Council Australia www.gbca.org.au
Victorian Eco Innovation lab www.ecoinnovationlab.com
Business Victoria www.business.vic.gov.au
Environment Design Guide www.environmentdesignguide.com.au

Attachment 9 - ESD Advisor response to original plans

10. Construction and Building Management

Objective:

- to encourage a holistic and integrated design and construction process and ongoing high performance

Issues	Applicant's Design Responses	Council Comments	CAR*
Building Tuning	Comprehensive commissioning and tuning of all major appliances and building services.	-	1
Building Users Guide	A Building Users Guide explaining optimal usage of building services and sustainability features within the development including rainwater tanks, energy systems, etc.	-	1
Contractor has Valid ISO14001 Accreditation	ISO14001 accreditation will be positively weighted during construction contractor selection process.	-	1
Construction Management Plan	An Environmental Management Plan will be developed by the building contractor to monitor and control activities undertaken during construction.	-	1
Others	-	-	-

*** Council Assessment Ratings:**

1 – Design Response is SATISFACTORY; 2 – Design Response is NOT SATISFACTORY
3 – MORE INFORMATION is required; 4 – ESD IMPROVEMENT OPPORTUNITIES

References and useful information:
SDAPP Fact Sheet: 10. Construction and Building Management
ASHRAE and CIBSE Commissioning handbooks
International Organization for standardization – ISO14001 – Environmental Management Systems
Keeping Our Stormwater Clean – A Builder's Guide www.melbournewater.com.au

Attachment 9 - ESD Advisor response to original plans

Sustainable Management Plan (SMP)
for planning applications being considered by Yarra Council

Applicant Response Guidelines

Project Information:

Applicants should state the property address and the proposed development's use and extent. They should describe neighbouring buildings that impact on or may be impacted by the development. It is required to outline relevant areas, such as site permeability, water capture areas and gross floor area of different building uses. Applicants should describe the development's sustainable design approach and summarise the project's key ESD objectives.

Environmental Categories:

Each criterion is one of the 10 Key Sustainable Building Categories. The applicant is required to address each criterion and demonstrate how the design meets its objectives.

Objectives:

Within this section the general intent, the aims and the purposes of the category are explained.

Issues:

This section comprises a list of topics that might be relevant within the environmental category. As each application responds to different opportunities and constraints, it is not required to address all issues. The list is non-exhaustive and topics can be added to tailor to specific application needs.

Assessment Method Description:

Where applicable, the Applicant needs to explain what standards have been used to assess the applicable issues.

Benchmarks Description:

The applicant is required to briefly explain the benchmark applied as outlined within the chosen standard. A benchmark description is required for each environmental issue that has been identified as relevant.

How does the proposal comply with the benchmarks?

The applicant should show how the proposed design meets the benchmarks of the chosen standard through making references to the design brief, drawings, specifications, consultant reports or other evidence that proves compliance with the chosen benchmark.

ESD Matters on Architectural Drawings:

Architectural drawings should reflect all relevant ESD matters where feasible. As an example, window attributes, sun shading and materials should be noted on elevations and finishes schedules, water tanks and renewable energy devices should be shown on plans. The site's permeability should be clearly noted. It is also recommended to indicate water catchment areas on roof- or site plans to confirm water re-use calculations.