

Amended Plans Submission Form (Application Not Approved)

Applicant: Holdmark

Property: 33 Nancarrow Ave Ryde

LDA No: LDA2015/0032 CC No: —
(If amended plans for DA) (If amended plans for CC)
(include prefix – eg LDA2009/0001) (include prefix – eg PCA2009/1234)

Assessing Officer: Sandra Bailey

Notification Required: YES / NO

3 set of plans with amendments clearly marked Sue 10/7 (initials & date)

3 A4s for notification: YES / N/A

Received: Sue 10/7 (initials & date)

Events updated: Sue 10/7 (initials & date)

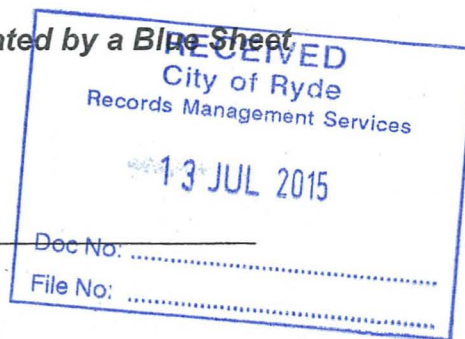
All plans and covering letter are stamped with 'Amended Plans' date stamp

Original and Spare Copies are Separated by a Blue Sheet

RECORDS

Received: _____

Registered: _____



TO ASSESSING OFFICER

Amended Plan Submission Form



5/2/09

AMENDED PLANS
10 JUL 2015

LD 2015
2031

Item	Consultant	Document Titled	Dated
1	Turner (Architects)	'Cover Page - Drawing DA-000_001 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
2	Turner (Architects)	'Site Plan: Basement Lvl B3 - Drawing DA-110_005 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
3	Turner (Architects)	'Site Plan: Basement Lvl B2 - Drawing DA-110_006 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
4	Turner (Architects)	'Site Plan: Basement Lvl B1 - Drawing DA-110_007 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
5	Turner (Architects)	'Site Plan: Level 01 - Drawing DA-110_010 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
6	Turner (Architects)	'Site Plan (Bdg 8) - B Lvl B1 - Drawing DA-111_007 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
7	Turner (Architects)	'Site Plan (Bdg 8) - Lvl 01 - Drawing DA-111_010 - Rev M - Project No 13067 - Stages 8 & 9'	16 January 2015
8	Turner (Architects)	'Site Plan (Bdg 9A) - BLvl B3 Sheet 1 - Drawing DA-112_003 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
9	Turner (Architects)	'Site Plan (Bdg 9A) - BLvl B3 Sheet 2 - Drawing DA-112_004 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
10	Turner (Architects)	'Site Plan (Bdg 9A) - BLvl B2 Sheet 1 - Drawing DA-112_005 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
11	Turner (Architects)	'Site Plan (Bdg 9A) - BLvl B2 Sheet 2 - Drawing DA-112_006 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
12	Turner (Architects)	'Site Plan (Bdg 9A) - BLvl B1 - Drawing DA-112_007 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
13	Turner (Architects)	'Site Plan (Bdg 9A) - Lvl 01 - Drawing DA-112_010 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
14	Turner (Architects)	'Site Plan (Bdg 9B) - Lvl 01 - Drawing DA-113_010 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
15	Turner (Architects)	'Building 8 North Elevation - Nancarrow Ave - Drawing DA-250-001 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015
16	Turner (Architects)	'Building 8 North Elevation - Nancarrow Ave - Drawing DA-250-001 - Rev N - Project No 13067 - Stages 8 & 9'	3 July 2015



Holdmark (Shepherds Bay Development Pty Ltd)

Submitted on 10 July 2015

17	Turner (Architects)	'Façade Shadow Diagrams Bdg 8 – Drawing DA-700-002 - Rev A – Project No 13067 – Stages 8 & 9'	3 July 2015
18	Turner (Architects)	'Façade Shadow Diagrams Bdg 9B – Drawing DA-700-003 - Rev A – Project No 13067 – Stages 8 & 9'	3 July 2015
19	Turner (Architects)	'Typical Façade Details – Drawing DA-720-001 - Rev A – Project No 13067 – Stages 8 & 9'	3 July 2015
20	Turner (Architects)	'General Cover Sheet & Drawing List – Drawing A-DA-001-001 - Rev E – Project No 14005 – Stages 6 & 7'	3 July 2015
21	Turner (Architects)	'Context – Site Analysis Plan – Drawing A-DA-100-030 - Rev D – Project No 14005 – Stages 6 & 7'	3 July 2015
22	Turner (Architects)	'Site Plan/Roof Plan – Drawing A-DA-101-090 - Rev F – Project No 14005 – Stages 6 & 7'	3 July 2015
23	Turner (Architects)	'GA Plans Basement 03 – Drawing A-DA-110-060 - Rev K – Project No 14005 – Stages 6 & 7'	3 July 2015
24	Turner (Architects)	'GA Plans Basement 01 – Drawing A-DA-110-080 - Rev K – Project No 14005 – Stages 6 & 7'	3 July 2015
25	Turner (Architects)	'GA Plans Basement 02 – Drawing A-DA-110-070 - Rev K – Project No 14005 – Stages 6 & 7'	3 July 2015
26	Turner (Architects)	'GA Plans Lower Ground – Drawing A-DA-110-090 - Rev O – Project No 14005 – Stages 6 & 7'	3 July 2015
27	Turner (Architects)	'GA Plans Ground – Drawing A-DA-110-100 - Rev N – Project No 14005 – Stages 6 & 7'	3 July 2015
28	Turner (Architects)	'GA Plans Level 01 – Drawing A-DA-110-110 - Rev I – Project No 14005 – Stages 6 & 7'	3 July 2015
29	Turner (Architects)	'GA Plans Level 03 – Drawing A-DA-110-130 - Rev I – Project No 14005 – Stages 6 & 7'	3 July 2015
30	Turner (Architects)	'GA Plans Level 02 – Drawing A-DA-110-120 - Rev I – Project No 14005 – Stages 6 & 7'	3 July 2015
31	Turner (Architects)	'GA Plans Level 04 – Drawing A-DA-110-140 - Rev I – Project No 14005 – Stages 6 & 7'	3 July 2015
32	Turner (Architects)	'GA Plans Level 05 – Drawing A-DA-110-150 - Rev J – Project No 14005 – Stages 6 & 7'	3 July 2015
33	Turner (Architects)	'GA Plans Level 06 – Drawing A-DA-110-160 - Rev K – Project No 14005 – Stages 6 & 7'	3 July 2015

LDA2015/0031



LDA2015/0032



Holdmark (Shepherds Bay Development Pty Ltd)
Submitted on 10 July 2015

34	Turner (Architects)	'GA Plans Level 07 –Drawing A-DA-110-170 - Rev K – Project No 14005 – Stages 6 & 7'	3 July 2015
35	Turner (Architects)	'GA Plans Level 08 (Mezzanine) – Drawing A-DA-110-180 - Rev K – Project No 14005 – Stages 6 & 7'	3 July 2015
36	Turner (Architects)	'GA Plans Level 09 (Roof) –Drawing A-DA-110-190 - Rev K – Project No 14005 – Stages 6 & 7'	3 July 2015
37	Turner (Architects)	'Building Envelope Diagram 1/2 – Drawing A-DA-740-110 - Rev D – Project No 14005 – Stages 6 & 7'	14 April 2015
38	Turner (Architects)	'Building Envelope Diagram 2/2 – Drawing A-DA-740-111 - Rev D – Project No 14005 – Stages 6 & 7'	14 April 2015
39	Turner (Architects)	'Solar Analysis Courtyard North East Self Shadowing Study –Drawing A-DA-840-010 - Rev A – Project No 14005 – Stages 6 & 7'	3 July 2015
40	Turner (Architects)	'Solar Analysis Courtyard North West Self Shadowing Study –Drawing A-DA-840-020 - Rev A – Project No 14005 – Stages 6 & 7'	3 July 2015
41	Thompson Stanbury Associates	'Amended Internal Traffic Assessment – Proposed Residential Development – Shepherds Bay Stage 6 & 7 – Nancarrow Avenue Meadowbank – Ref 14-217-4	July 2015
42	Harris Page & Associates (Hydraulic & Fire Consultants)	'Plan – DA Submission Stormwater Concept Basement Level 1 – Drawing No. SW-06 – Rev P2 – Project No 5728 – Stage 8&9'	7 July 2015
43	Harris Page & Associates (Hydraulic & Fire Consultants)	'Plan – DA Submission Stormwater Concept Lower Ground Floor – Drawing No. SW-05 – Rev P2 – Project No 5727 – Stage 6&7'	7 July 2015

LDA 2015/0032



44. X1 CD of items submitted on 7/7/15 and 10/7/15.

29 June 2015

Sandra Bailey - Team Leader Major Development
City of Ryde Council
1 Devlin Street
Ryde NSW 1670

Dear Sandra

[RE: DEVELOPMENT APPLICATION REF:LDA 2015/0032, SHEPHERDS BAY STAGES 6 AND 7, ADDRESS: 37-53 NANCARROW AVENUE, RYDE](#)

Sutherland & Associates Planning Pty Ltd provided initial correspondence to Council on 11 June 2015 in response to Council's letter dated 29 May 2015. The initial correspondence provided a response to each of the issues raised where possible and advised matters for which additional or amended documentation is intended to be provided.

The 11 June 2015 submission in relation to Stages 6 and 7 was accompanied by the following documentation:

- A supplementary letter prepared by Intregreco confirming that the proposal will comply with the revised ESD targets for Shepherds Bay.
- A revised, single Sustainable Travel Plan.
- Correspondence from Jude Colechin confirming that the proposed on-street loading bay arrangement is an acceptable arrangement.
- An amended Internal Parking Assessment prepared by Thompson Stanbury for Stage 8 and 9.
- In addition, an updated Public Art Plan, prepared by Black Beetle was submitted on 29 June 2015.

Since the 11 June 2015 submission, progress has been made in relation to all of the outstanding issues raised by Council. For the purpose of clarity the outstanding issues, progress and proposed path forward are summarised below:

Issue	Discussion
Public stormwater design	<ul style="list-style-type: none"> • BG&E met with Council on 4 June 2015 and have a comprehensive understanding of Council's preferred design approach. • BG&E are currently preparing an amended stormwater design to the satisfaction of Council. • BG&E will confirm in early July that an amended stormwater solution can be achieved without the need to alter the floor levels of the buildings. • On this basis, it is proposed that a deferred commencement condition be imposed requiring final resolution of the stormwater design through the site to Council's satisfaction prior to activation of the consent.
Road design (civil) for Constitution Road	<ul style="list-style-type: none"> • The civil design for Constitution Road relies upon the final resolution of the stormwater design discussed above and upon Council confirming

Issue	Discussion
	<p>satisfaction of the final stormwater design, the civil design can be amended to correspond.</p> <ul style="list-style-type: none"> On this basis, it is proposed that a deferred commencement condition be imposed requiring final resolution of the road design (civil) for Constitution Road to Council's satisfaction prior to activation of the consent.
Public Domain Plan	<ul style="list-style-type: none"> The public domain design for Constitution Road and Nancarrow Road relies upon the final resolution of the stormwater design and civil design discussed above and upon Council confirming satisfaction of the final stormwater and civil design, the public domain plan can be amended to correspond. On this basis, it is proposed that a deferred commencement condition be imposed requiring final resolution of the public domain plan for Constitution Road and Nancarrow Avenue to Council's satisfaction prior to activation of the consent.
Landscape Plan (internal: roof and ground)	<ul style="list-style-type: none"> Place Design are in the process of amending the landscape plans for the roof areas which will be submitted in early July 2015. The landscape design through the centre of the site relies upon the final resolution of the stormwater design discussed above and upon Council confirming satisfaction of the final stormwater design, the landscape treatment –through the centre of the site can be amended to correspond. On this basis, it is proposed that a deferred commencement condition be imposed requiring final resolution of the landscape design through the centre of the site to Council's satisfaction prior to activation of the consent.
<p>Building Design:</p> <ul style="list-style-type: none"> Internal garbage room changes; new hard waste room for Stage 7; relocated room for Stage 6; temporary holding room for Stage 7. Interval vs external garbage collection/loading bay Basement footprints Clearance for basement entry for Stage 8 Design Panel comments Car share spaces 	<ul style="list-style-type: none"> Turner Architects have amended the internal garbage room design to respond to Council's request and the amended architectural plans are to be provided in early July. Elephant's Foot have met with and discussed the issue of internal vs external garbage collection and loading bay with Jude Colechin from Council who has confirmed that the proposed on-street loading bay arrangement is an acceptable arrangement. The issue of the location of the basements has already been addressed in correspondence dated 11 June. This letter includes some diagrammatic illustrations of the unacceptable and unnecessary implications of basements being strictly contained within the footprint of the buildings above. Turner Architects have reviewed the architectural plans and confirm that there is adequate clearance for basement entry into Stage 8 with a distance of greater than 2.55 metres provided and 2.850 metres for Stage 9. The proposed approach to address the design panel comments were discussed at a meeting with Council and representative from SJB on 24 June 2015. These measures are addressed in detail below in this correspondence and a complete set of amended architectural plans will be provided to Council in early July incorporating these amendments. The architectural plans are in the process of being amended to provide 1 car share space per 90 car parking spaces. A complete set of amended architectural plans will be provided to Council in early July incorporating these amendments.

Issue	Discussion
<p>Private Stormwater design:</p> <ul style="list-style-type: none"> Public overland flow path and private drainage (WSUD) measures to be separated Bioretention System and Gross Pollutant Trap 	<ul style="list-style-type: none"> Harris Page are in the process of amending the private stormwater concept design to separate WSUD measures between private and public stormwater (public WSUD to be addressed by BG&E in their stormwater design through the site as discussed above) as well as to address remaining minor design issues raised by Council. The amended stormwater design is intended to be provided to Council in early July. Supporting calculations/report including the water quality model (MUSIC) in relation to the Bioretention System and Gross Pollutant Trap is currently being prepared by BG&E.

For ease of reference we will also address each of the issues raised in the order that they are set out within Council's letter, as follows:

Council Issue	Response
1. NSW Roads and Maritime Service (RMS)	
<p>RMS comments relate to the whole of the redevelopment of the Shepherds Bay site but are nonetheless required to be addressed in the assessment of LOA 2015/0032 for Stages 6 and 7 given the integrated nature of the overall redevelopment and the cumulative traffic impacts. These comments are included in Attachment 1 of this letter.</p> <p>The RMS has identified the deficiencies in the submitted traffic report and you are required to provide the following information:</p> <ul style="list-style-type: none"> The distribution of trips generated by this development and their impacts on crucial intersections such as Bowden Street/Victoria Road and Morrison Road/Church Street, Concerns are raised relating to the proportion of proposed road improvements. A traffic assessment of the Saturday midday peak flow, Full Mode Share analysis that will identify the requirements and demand for non-private vehicle travel. 	<ul style="list-style-type: none"> We can confirm that following Holdmark attempting to arrange to meet with the RMS to discuss the issues raised, RMS have advised that further modelling work is not required. They have also stated that there is no need for a meeting as the report forwarded to them satisfied their concerns. They undertook to advise Council accordingly. A copy of RDS email to the RMS dated 29 June 2015 is attached for information. Road Delay Solutions (RDS), Varga Traffic Planning and Bitzios prepared this information during the preparation of the Concept Approval. We also understand that this information was reviewed by ARUP and RMS officers Andrew Popoff and Owen Hodgson at the time, and on behalf of DoPE. Council should already have this information but further copies of this information can be provided to Council if required RDS has advised that, as the Meadowbank Employment Area was originally an industrial quadrant, it generated a significant traffic generation. With the closure of the industrial and urbanisation of the Precinct, it was found, during the preparation of the Concept Plan, that the development's increase in vehicle generation through the Precinct was not going to be high. As such, all existing infrastructure in the vicinity of the Concept Plan Site was stringently assessed and the findings presented in the reports that informed the preparation of the Concept Plan application and for which approval was received via the Concept Plan consent.

Council Issue	Response
	<p>Council should already have this information but further copies of this information can be provided to Council if required.</p> <ul style="list-style-type: none"> No Saturday assessment was undertaken as part of the Concept Application, given that the site is to be predominantly residential. It is not considered necessary to undertake such an assessment as RDS do not believe that, based on their experience, there will be any significant impact on the surrounding road network during a Saturday peak as a result of the development. This was accepted during the assessment of the Concept Plan application and consent was issued accordingly. RDS has advised that share analysis was presented to DIPNR and RMS as part of the Concept Plan submission. Copies of this information can be provided to Council if required.
2. Public Works, Traffic and Public Domain	
<p>a) Public domain</p> <p>Updated details are required addressing this issue for review, prepared in accordance with City of Ryde Public Domain Technical Manual Section 5-Meadowbank. This shall include but not limited to;</p> <ul style="list-style-type: none"> Public assets and materials (details for street tree planting, footpath paving, street furniture, bus stops and bus shelters) Multi-function pole layout and street lighting details, Engineering plans showing road longitudinal sections, cross sections, details of the embankment stabilisation. Detailed plans of the intersection, including geometric layout and linemarking, sections through the intersection for each leg, no less than 50m beyond the intersection. TCS design and details. Detailed Engineering Plans of the intersection configuration must be consistent with the submitted supporting documentation to RMS requirements. (TCS Validation Report and supporting electronic files) <p>The plans must clearly specify the exact boundaries of the public domain works that are intended to be undertaken within this stage of the development, including works to be undertaken along Constitution Road.</p>	<p>The final design of the public domain and traffic works relies upon the resolution of the stormwater design through the site to Council's satisfaction. Given that an engineering solution is possible, it is considered appropriate and reasonable for the issue of public domain and traffic design to be dealt with as a deferred commencement condition of consent subject to the resolution of the final stormwater design to Council's satisfaction.</p>
b) Waste	<ul style="list-style-type: none"> Turner Architects are in the process of amending

Council Issue	Response
<p>In respect to waste management, the following issues have been raised:</p> <ul style="list-style-type: none"> • Number of bins shown in the Waste Management Plan is not adequate. Stage 6 needs 8x1000L waste and 12x660L recycling bins divided up over 4 chutes equates to 6 bins per chute room required. • Whilst an area for the garbage holding room is advised in the Waste Minimisation Plan, the bin collection room does not show that the number of bins required will fit into the bin room. The plans must be revised to depict the bin layout so as to ensure that servicing the bins can be practically undertaken. • There is only one hard waste storage room for the two stages, which means that all residents will need to transport any unwanted items to this room which is not supported. A second area therefore should be designated in Stage 7 for residents only • Clarification of how the bulky waste material will be collected and where it will be collected from shall be clearly defined in any revised documentation. • Whilst Part 7.2-Waste Minimisation and Management of Council's Development Control Plan requires the provision of 5m² bulky discard item storage area for developments comprising 30 or more units, the plans do not specify the total area of allocated space. The plans must be amended adequately specifying such storage space within the development fully complying with the requirements. • The bulk waste goods room is inaccessible to the road for collection purposes. This room needs to be relocated so that it is separate from the bin storage room but has direct access to the collection point. • The plans show that bins are being serviced from an indented bay on Nancarrow Avenue. Council requires that all bins must be serviced off the street and within the basement of the building. This not only prevents access issues caused by street tree planting, but also reduces the noise impact those residents facing Nancarrow Avenue near the driveway entry. Major amendments would need to be made to the plans within the basement area for truck access to the bins which does not impede traffic flow and allows the truck 	<p>the architectural plans with respect to the request for modification to the various garbage rooms. An amended architectural package will be provided to Council in early July 2015.</p> <ul style="list-style-type: none"> • Elephant's Foot have met with Jude Colechin who has confirmed that the proposed on-street loading bay arrangement is an acceptable.

Council Issue	Response
<p>to enter and exit the building in a forward manner.</p> <ul style="list-style-type: none"> The Waste Minimisation Plan states that Stage 7 will have a temporary garbage holding room. However, this is not shown on the plans. A clear diagram needs to show how this will be managed. 	
<p>c) Traffic</p> <ul style="list-style-type: none"> The applicant is to provide Civil plans that show the modification of the Constitution Road including integration of the embankment and the Signalised intersection of Bowden Street and Constitution Road. <p>Note*: Any modification of Constitution Rd must not contradict and compromise the Traffic and stormwater infrastructure required for other objectives. In accordance with the Modification of Ministers Approval the applicant is to undertake: "Works to eliminate the risk of embankment failure of Constitution Road"</p> <p>It should be noted that Council has identified this can be achieved if the applicant maintains the current levels of Constitution Road and provides a culvert through the embankment for the drainage and overland flow path to pass underneath this section of Road.</p> <ul style="list-style-type: none"> SIDRA analysis results are required for pre-development and post- development conditions under both AM and PM peaks at; <ul style="list-style-type: none"> Constitution Road/Bowden Street roundabout (pre-developed) and converted signalised intersection (post-development); Constitution Road/Belmore Street intersection; Bowden Street/ Nancarrow Avenue; Rothesay Avenue and Belmore Street and The intersection of the Nancarrow Link and Belmore Street. The results shall include the movement summaries for all trafficable lanes as well as the proposed traffic signal arrangement used for any signalised intersections. Relevant supporting documentation shall be provided to support justification of the proposed arrangement. Note: The data can be extracted from the Meadowbank Employment Area Traffic Needs Assessment Report. Council can assist the 	<ul style="list-style-type: none"> BG&E met with Council on 4 June 2015 and are currently investigating a satisfactory design solution for Constitution Road. Given that an engineering solution is possible, it is considered appropriate and reasonable for the issue of road design to be dealt with as a deferred commencement condition of consent subject to the resolution of the final stormwater design to Council's satisfaction. Landscape design plans and details will be amended in accordance with the engineers solution above and again it is considered appropriate and reasonable for the issue of landscape design through the centre of the site be dealt with as a deferred commencement condition of consent subject to the resolution of the final stormwater design to Council's satisfaction. RDS has advised that the pre and post arterial corridors were assessed during the Concept Approval. RDS has advised that additional assessment is therefore not required.

Council Issue	Response
<p>developer with information to produce a robust traffic signal validation report for the subject intersection upon request.</p> <ul style="list-style-type: none"> The geometric parameters for the Constitution Road/Belmore Street intersection have been incorrectly modelled as it does not include the provision of parking or "short lane-with parking" on Belmore Street, south-west leg in either the pre or post-development cases. This needs to be re-modelled for accurate assessment of the impact of the development on this intersection. The traffic counts undertaken by R.O.A.R. data for the Junction Street/Church Street and Bowden Street/Victoria Road intersections have been provided but lack of intersection impact assessments have been derived from the data. The applicant is to provide SIDRA analysis of the above-mentioned intersections to determine if phasing adjustments are required. Any signal phasing adjustments shall be negotiated between the applicant and Roads and Maritime Services (RMS). All costs associated with this process shall be borne by the applicant. 	
<p>d) Drainage</p> <p>In regards to the proposed stormwater management system and public drainage infrastructure traversing the property;</p> <ul style="list-style-type: none"> The design drawings for the proposed new public drainage line traversing the property show the flow velocity in the pipe will exceed 11 m/s in certain sections which exceeds the Council's maximum rate, specified in Section 5.3. 1 of the DCP Part 8.2 (Stormwater Management). Further to the concerns raised for Stages 8 &9 regarding the manner of discharge to the Harbour and potential scouring impacts, the nominated flow rate and capacity of the proposed public drainage system is such to cause rapid degradation of the asset which can significantly reduce its serviceable lifespan. Accordingly the system must be redesigned to ensure the conveyance of stormwater runoff from the greater upstream catchment and roadway related areas is of a rate and capacity complying with Council's DCP requirements. To this end, the following is required; The proposed public drainage system should be redesigned by reducing the capacity of the inground drainage infrastructure to a lesser event (20yr ARI) and making provision for a 	<ul style="list-style-type: none"> BG&E met with Council on 4 June 2015 and have a comprehensive understanding of Council's preferred design approach. BG&E are currently preparing an amended stormwater design to the satisfaction of Council. BG&E will confirm in early July that an amended stormwater solution can be achieved without the need to alter the floor levels of the buildings. On this basis, it is proposed that a deferred commencement condition be imposed requiring final resolution of the stormwater design through the site to Council's satisfaction prior to activation of the consent. BG&E are currently in the process of producing the supporting calculations/report including the water quality model (MUSIC) in relation to the Bioretention System and Gross Pollutant Trap. Turner Architects are in the process of reviewing and amending where necessary basement threshold levels in consultation with BG&E and an amended architectural package incorporating these amendments will be provided in early July 2015. Landscape design plans and details will be amended in accordance with the engineers solution above and again it is considered

Council Issue	Response
<p>defined overland flow path able to convey runoff during the 100yr event (accounting for 30% blockage of the inlet capacity of the inground infrastructure).</p> <ul style="list-style-type: none"> • A revised HGL analysis must be provided for the inground drainage infrastructure. All design assumptions or relevant parameters are to be noted on the plan. The details must comply with the requirements specified in Section 5 of the DCP Part 8.2 (Stormwater Management), particularly Section 5.3.1 in regards to pipe velocities. • A defined overland flow path is to be provided through the site. The design is to convey overland flow resulting from the 100yr event accounting for 30% blockage of the inground drainage infrastructure. The velocity-depth product must comply with Section 5.4 of the aforementioned DCP Part. Details demonstrating this must be submitted. • The overland flow path and development's WSUD measures (creek beds) are to be separated, to ensure major stormwater runoff from upstream areas will not enter, damage or degrade these components, which are to be maintained by the owners of the future development. • The downstream impacts and flows over public areas are to be considered with respect to property damage and public safety. • Copies of the DRAIN and HECRAS/ TUFLOW modelling to clarify the design. • The applicant is to provide modelling to demonstrate that the design (and specifically the inlet arrangement upstream of Constitution Rd) does not increase flooding or risks. • The applicant will need to provide a design of a major system component to satisfy the Floodplain Development Manual (FDM) requirements for the types of use/risk of the location as a park. • Referring to Harris Page and Associates Stormwater Plan (C-0200 to C- 0291 dated 23 December 2014), a Bioretention System and Gross Pollutant Trap is proposed. The supporting calculations/ report including the water quality model (MUSIC) shall be submitted to the Council for review. 	<p>appropriate and reasonable for the issue of landscape design through the centre of the site be dealt with as a deferred commencement condition of consent subject to the resolution of the final stormwater design to Council's satisfaction.</p>

Council Issue	Response
<ul style="list-style-type: none"> • The applicant will need to provide to Council confirmation that approval from the Office of Environment and Heritage (OEH), Department of Primary Industries - Office of Water for a 'controlled activity approval' has been granted for the proposed discharge into the bay. Council will also need confirmation that the applicant has received approval through the Department of Fisheries for works affecting marine vegetation and aquatic habitat. These approvals will require designs demonstrating protection of and mitigation against negative impact on the environment. • Council asks the developer to refer to the environmental responsibilities under the Protection of the Environment Operations Act 1997 for scheduled activities that have potential to cause water pollution, the Water Management Act 2000 and the Fisheries Management Act 1994 for protection of the aquatic habitat, animals and plants <p>Referring to Stages 6-9 Flood Assessment report, BG&E utilised DRAINS and TUFLOW models.</p> <ul style="list-style-type: none"> • Digital copies of the flood and overland flow modelling must be submitted with the application so as to verify the results obtained and input data. • The hydraulic modelling has been carried out based on the lowering of Constitution Road. Issues associated with lowering of the Constitution Road were raised with the client representatives during a meeting held on 16 February 2015 with Council. At this meeting, it was advised that the levels of Constitution Road be maintained and provision of overland flow be made via additional drainage culverts or a bridge. Subsequently any amendments to the levels of Constitution Road will warrant revision of the Flood Analysers through the property. • The basement parking levels must be elevated above the Probable Maximum Flood event. Section 3.3 of the submitted Flood Report states that PMF levels were determined to establish basement garage entry thresholds given the high consequence of flooding. Figure A4 depicts the extent and depth of flooding will exceed the nominated entry level basement garage under Stage 7. • The Flood Study is to include a large scale site plan shall be prepared showing accurately the existing and proposed flood extent maps for the 	

Council Issue	Response
<p>1r 00 year ARI and PMF flood events for detailed review. Table 2.1 should include PMF flow rate information.</p>	
<p>3. Development Engineering</p>	
<p>Council's Development Engineer has reviewed the application and has identified the following issues which are required to be addressed. Details are as follows:</p>	
<p>a) Notwithstanding the review undertaken by Public Works, the submitted Flood and Overland Flow Study has depicted PMF levels that would inundate basement garage levels (Figure A4 in report). This is unacceptable as it would have significant impacts in terms of public safety and extensive property damage. The basement garage areas must achieve a crest that is elevated above the PMF event.</p>	<p>Turner Architects are in the process of reviewing and amending where necessary basement threshold levels in consultation with BG&E and an amended architectural package incorporating these amendments will be provided in early July 2015.</p>
<p>b) The development does not accommodate a loading bay within the property but has nominated an indented loading bay on the Nancarrow Avenue frontage. The imposition of these facilities in the Public Domain, for a development of this scope is not supported. A loading area must be implemented in the site and is to be designed to accommodate an MRV vehicle as per the requirements of AS 2890.2</p>	<p>During design development, the issue of on street vs on site loading was specifically discussed with Council. Elephant's Foot discussed this matter with Jude Colechin, Section Manager Waste, from Council who endorsed the proposed on street loading and garbage collection arrangement and advised via email on 10 April 2014 that:</p> <ul style="list-style-type: none"> • "the (on street) loading bay would require a non standing sign to be enforced" • "there will also need to be a ramp leading from the naturestrip to the loading bay" <p>Elephant's Foot have recently met with Jude Colechin who has confirmed that the proposed on-street loading bay arrangement is an acceptable.</p>
<p>c) The overland flowpath from Constitution Road will inundate the development's creek beds/ bioretention ponds. It is likely that such events will cause significant damage to these components and therefore expose Council to significant risk and liability. It is essential that the public overland flow path and private drainage (WSUD) measures are separated.</p>	<ul style="list-style-type: none"> • Harris Page are currently in the process of amending the internal stormwater design to separate WSUD measures. The amended stormwater Concept Plan will be provided in early July 2015. • The landscape design through the centre of the site relies upon the final resolution of the stormwater design discussed above and upon Council confirming satisfaction of the final stormwater design, the landscape treatment – through the centre of the site can be amended to correspond. <p>On this basis, it is proposed that a deferred commencement condition be imposed requiring</p>

Council Issue	Response
	final resolution of the landscape design through the centre of the site to Council's satisfaction prior to activation of the consent.
d) Stage 7 development discharges to the bioretention basin via a proposed 375mm diameter line which will traverse the easement. This is not supported as it will impose on future maintenance of the public drainage line. The manner of discharge and configuration of the bioretention basin will need to be addressed	Harris Page are currently in the process of reviewing and amending the internal stormwater design address this concern. The amended stormwater Concept Plan will be provided in early July 2015.
e) The proposed discharge drainage line from the rainwater tank in Stage 7 appears to be suspended from the roof of the garage. The nominated invert level of the line will reduce the overhead clearance to 2.0m which is less than the minimum headroom clearance specified by AS 2890.1	Harris Page are currently in the process of reviewing and amending the internal stormwater design address this concern. The amended stormwater Concept Plan will be provided in early July 2015.
f) The submitted infrastructure plans produce a HGL for the proposed in ground public drainage infrastructure from Ann Thorn Park to Shepherds Bay, however only the 10yr ARI event is depicted. The HGL must be updated to reflect the required capacity of the line, as per Public Works request. This is to demonstrate this could be satisfactorily achieved and to enable the assessment of any potential impacts on the developments own drainage system at the nominated points of discharge.	<ul style="list-style-type: none"> • BG&E met with Council on 4 June 2015 and have a comprehensive understanding of Council's preferred design approach. • BG&E are currently preparing an amended stormwater design to the satisfaction of Council. • BG&E will confirm in early July that an amended stormwater solution can be achieved without the need to alter the floor levels of the buildings. • On this basis, it is proposed that a deferred commencement condition be imposed requiring final resolution of the stormwater design through the site to Council's satisfaction prior to activation of the consent.
4 Landscaping	
<p>The City of Ryde DCP - Part 4.2: Shepherd's Bay, Meadowbank - General Development Controls section 4.1 .5 Landscaping and Open Space highlights as one of the 'controls' that roof gardens are encouraged and must be considered in any landscape plan. It is noted from the architectural plans that within Stages 6 & 7 there will be varying roof heights across the two buildings presenting an opportunity to use roof gardens in the development that will have a positive impact on residents located within upper floors of the proposal.</p> <p>The landscape architect's plans document a 'Roof Garden Strategy' for roof gardens for this stage of development, however the plans lack a level of detail to be assessed at this stage. It is required that the Landscape Architect provide more detailed concept</p>	<p>Place Design are in the process of amending the landscape plans for the roof areas which will be submitted in early July 2015. Generally, accessible roof gardens will not be provided on the basis of the following:</p> <ul style="list-style-type: none"> • The roof gardens will create privacy issues, with direct view lines to nearby apartments. • There is a significant cost associated with the maintenance of these areas which would burden the owners corporation, translating to higher levies on owners/residents. The owners corporation is currently burdened with the costs associated with maintenance of the Public Domain elements. Additional expense in this instance is unwarranted and overly onerous. • There are many examples where such roof gardens have not been maintained by Owners

Council Issue	Response
plans to address these areas.	<p>Corporations, resulting in potential issues regarding safety, cleanliness and poor aesthetics.</p> <ul style="list-style-type: none"> • The open space provision already provided exceeds the strict planning requirement. Therefore, roof gardens are not required to meet any communal open space requirement. • Potential management issues with the use of roof gardens, resulting in potential amenity impacts for nearby residents. • The security of the adjacent apartments could be compromised. • Potential issues with leaks which ~re very difficult and costly to repair
5. Environment and Sustainability	
Council's Environment and Sustainability Officer has reviewed the application and has identified a wide range of issues that are included at Attachment 2 to this letter	<p>A revised, single Sustainable Travel Plan for the Concept Plan has been prepared by RDS and was submitted to Council on 11 June.</p> <p>Turner architects are currently in the process of amending the building design to accommodate the provision of 1 car share space per 90 spaces. An amended architectural package will be provided to Council in early July 2015.</p>
6. Environmental Health	
Council's Environmental Health Officer has reviewed the application and has identified a number of issues particularly among them are regarding Groundwater, Contamination and Acid Sulphate Soil. These matters along with other matters in the review notes need to be addressed before further assessment of the application can proceed.	<p>The contamination report and RAP for Stages 6 and 7 state that historical documents indicate the potential for up to eight USTs on the site with only two reported as being removed. Council have requested a new contamination report which identifies the remaining tanks and tests soil in the locations of the tanks to demonstrate that the site is suitable for the proposed use, or that the site can be remediated to the extent necessary for the proposed use. However, the existing building remains on site and this testing cannot be undertaken until consent is granted for its removal. In this instance, it is considered appropriate for the consent to be conditioned for this work to be undertaken following demolition which is the approach that Council recently adopted in relation to LDA2014/0308 at 2 Angas Street, Meadowbank which was approved on 18 February 2015.</p>
7. Public Art	
Pages 13 and 16 of Ryde Councils Public Art guidance document (Public Art: Planning Guide for Developers) identify criteria and frameworks for the development of a Public Arts plan such as project description, thematic framework, concept drawings	An updated Public Art Plan, prepared by Black Beetle was provided to Council on 29 June 2015.

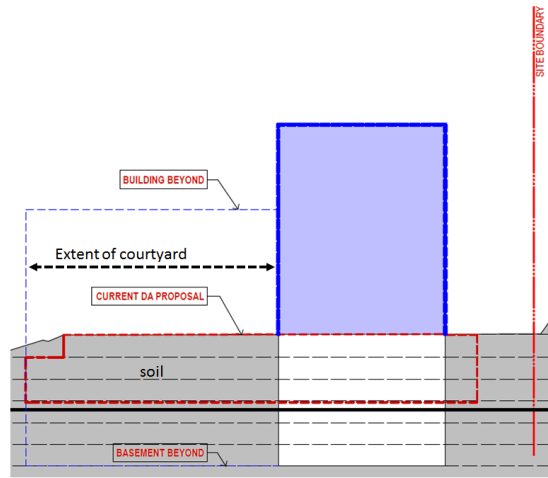
Council Issue	Response
<p>and project parameters/ implementation details.</p> <p>Council's Community and Culture Officer has reviewed the application and has identified the following issues which are required to be addressed . Details are as follows :</p> <ul style="list-style-type: none"> The proposed concepts for artworks have the potential to integrate well into the development and include relevance to the site and local history; however the Plan does not provide enough information to allow for a comprehensive assessment of Project parameters/ implementation criteria as identified in Ryde Council's Public Art guidance document. <p>As such an updated plan is required to be submitted to address "Project Parameters/ Implementation of the proposed Arts work" as identified on pages 13 and 16 of Ryde Council's Public Art guidance document (Public Art: Planning Guide for Developers).</p>	
<p>8. Modified Concept Approval (MP09_0216 MOD1) Conditions</p>	
<p>With reference to the modification of Minister's Concept Approval dated 16 October 2014, the following issues are required to be addressed:</p>	
<p>a) Scaled and dimensioned drawings</p> <p>In order to accurately assess the built form of the proposed development and accompanying SEPP 65 report relative to the modified concept approval, amended plans, sections and elevations drawn to scale and fully dimensioned including boundary setbacks and floor to ceiling heights(already provided) and floor to floor heights are required to be submitted. It is noted that RLs have been annotated in the proposed plans, sections and elevations; however dimensioned details are still required in this instance.</p>	<p>We are unsure as to what this request refers to. As per Council's DA Checklist, Scaled plans were submitted with the DA.</p>
<p>b) Basement footprints</p> <p>Condition No.4 of the modified concept approval requires:</p> <p>"Future Development Applications shall ensure that basement parking levels do not exceed 1 metre above ground level (finished) and are located below the building footprint (with the exception of basements connecting Stages 2 and 3 and Stages 4 and 5) without encroachment into street setback areas."</p> <p>Concerns are raised that the proposed basement areas extend beyond the building footprint</p>	<p>Due to the narrow footprints of the two proposed buildings in Stages 6 and 7, an interpretation of Concept Plan consent Condition No. 4 to require basements only under the buildings above would result in extremely inefficient basement layouts with the inevitable result being the need to increase from 3 to 6 basement levels and additional excavation and dewatering and general disturbance of the site. The basement design for Stage 7 would be especially poor because the ramping would occupy the majority of each basement level, and this could only be alleviated with the use of car lifts, which is also a poor and unnecessary outcome.</p>

Council Issue

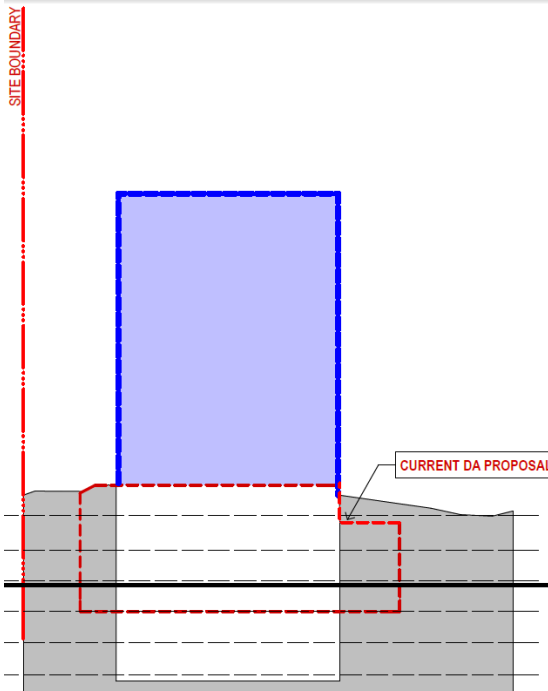
underneath the communal garden area of Stage 6 and within the street setback areas of Stage 7. As such detailed justification for the non-compliance including consideration of providing additional basement levels underneath the building footprint is required to be submitted.

Response

Sketch plans are provided below which illustrate the ramifications of this approach.



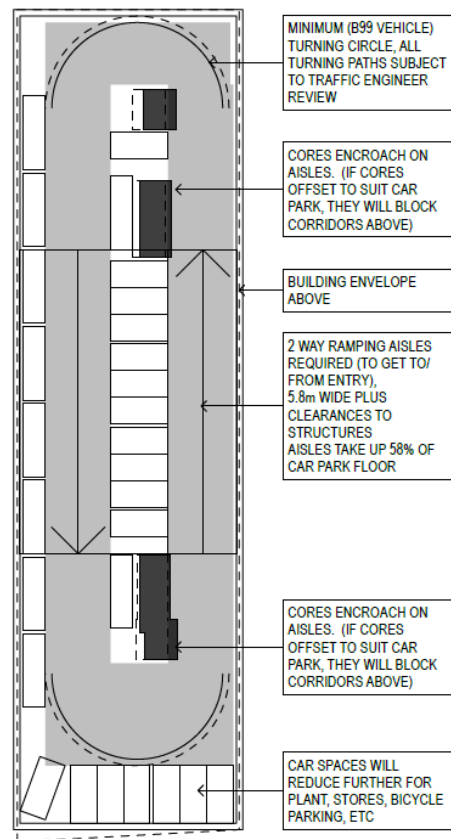
Stage 6: Section illustration of proposed basement levels and implication of basements only below footprint.



Stage 7: Section illustration of proposed basement levels and implication of basements only below footprint.

Council Issue

Response



TYPICAL FLOOR

< 28 SPACES PER FLOOR

Stage 7: Illustration of the required extent of ramping for a basement level contained only under the building footprint which occupies the majority of each basement level

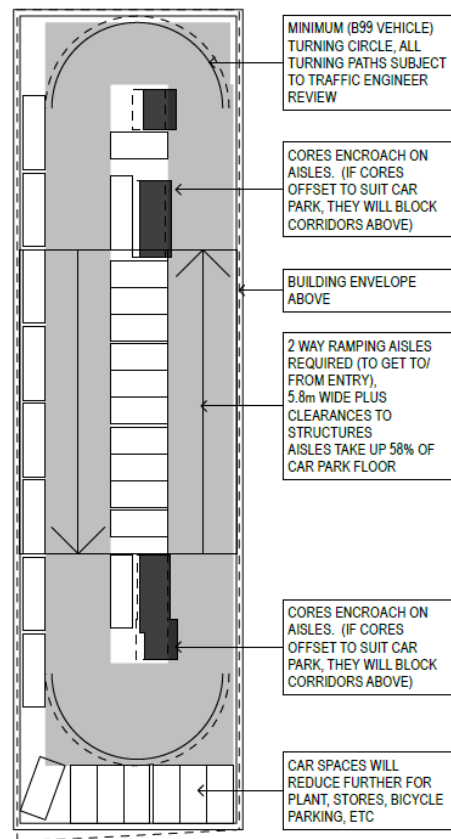
The core objective for locating basements only under building footprints is to ensure that sufficient deep soil is provided on site, which was central to the Planning Assessment Commission’s consideration of the issue for Stages 2, 3, 4 and 5.

In this instance, the proposed basement arrangement still results in 52.86% of the open space and 25.8% of the site as being deep soil. This is profoundly in excess of the minimum requirements of the Residential Flat Design Code which requires 25% of the open space to be provided as deep soil and 6.25% of the site to be provided as deep soil (based on minimum common open space area of 25% of site). It is also well in excess of the 7% deep soil required under the new Apartment Design Guide which will replace the Residential Flat Design Code.

In other words, the proposed development provides deep soil which is 200% of the minimum required

Council Issue

Response



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In other words, the proposed development provides deep soil which is 200% of the minimum required

Council Issue	Response
	<p>amount of the common open space area and <u>456%</u> of the minimum required amount of the site which must be deep soil.</p> <p>Given the substantial provision of deep soil which is still capable of being provided on the site with the proposed basement arrangement, there is no reasonable basis for concern in relation to the proposed basement arrangement and amendment of the basements would be unreasonable as it would not serve any planning purpose and would simply result in basement inefficiencies and double the number of basement levels.</p> <p>Moreover, the wording of the condition is primarily aimed at preventing encroachment into street setback areas only. The basements as designed and as shown in the DA drawings do <u>not</u> encroach into any street setback areas. It is therefore considered that the design as shown in the current DA documents complies with Concept Plan consent condition No. 4.</p>
<p>c) ESD report</p> <p>Condition No.22 of the modified concept approval requires:</p> <p>"Future Development Applications shall demonstrate the incorporation of ESD principles in the design, construction and ongoing operation phases of the development, in accordance with the base targets within ESD Guidelines Report prepared by Ecospecifier Consulting dated October 2010. Where no target is provided within this report, the development should strive to achieve the stretch target (where relevant and feasible). In accordance with the EnvironDevelopment philosophy, four of the categories will be targeted to show 'industry best practice' . Where the categories of water and energy are applied, BAS/X will be used to test 'industry best practice' for water and energy, which will be treated as 10% better than the BAS/X pass mark."</p> <p>It is noted that a letter from David Baggs of Integreco Consulting (dated 8 January 2015) states confirmation of compliance with the revised ESD targets for Stages 2 to 5, it is considered that the letter fails to adequately quantify the relevant standards and proposed targets for the development required by Condition 22.</p> <p>As such additional documentation demonstrating compliance with Condition 22 is required to be submitted.</p>	<p>A supplementary letter prepared by Integreco was provided to Council on 11 June which confirms that the proposal will comply with the revised ESD targets for Shepherds Bay and that the proposal will satisfy four of the nine categories, which was the benchmark required to represent "industry best practice".</p>

Council Issue	Response
9. Modified Statement of Commitments (March 2014)	
<p>The modified Statement of Commitments details the various contributions , applications and works the proponent commits to undertaking in association with the project.</p> <p>As identified on page 15 of the modified commitments, "the proponent commits to further investigate the opportunity for including the following ESD principles:</p> <ul style="list-style-type: none"> • Design internal apartment layouts to maximise natural ventilation and to capture prevailing winds • Utilise roof forms to capture natural light and ventilation; • Use of high thermal mass materials with apartments; • Ensure natural light and ventilation is provided to common areas to minimise energy consumption ; • Utilise low water flow and tap ware; • Harvesting of stormwater where feasible; • Recycling of water where feasible. <p>Details identifying investigation and/ or incorporation of the above mentioned principles are to be submitted.</p>	<p>Refer ESD response above</p>
10. Urban Design Review Panel	
<p>The DA for Stages 6 and 7 of the proposal was reviewed and commented by Council's Urban Design Review Panel (UDRP) on 11th March 2015. These comments have been forward to you by an e-mail on 5 May 2015, and are in Attachment 4 of this letter.</p> <p>The comments made by the UDRP are supported by Council. The issues raised must be addressed by the proponents and submitted to Council before any further assessment of the development application is carried out by Council</p>	<p>A response is provided below as to how the specific areas of concern will be addressed in the final architectural package to be provided to Council in early July 2015. The proposed approach to address these comments were discussed at a meeting with Council and representative from SJB on 24 June 2015. There was no negative feedback from Council or SJB with regard to any of the proposals.</p>
<p><i>Basement carparking</i></p> <p><i>The proposal includes a three and four level basement. Due to the sloping site, the basement potentially protrudes above ground level along the central stormwater easement, although some apartments 'sleeve' the basement along this alignment (above a basement podium). At some points however, the potential extent of the basement protrusion above ground level (approximately 1.2m) may create undesirable impacts to the quality of the primary site link and should be carefully mitigated.</i></p>	<p>Condition No. 4 of the Concept Plan states that Future Development Applications shall ensure that basement parking levels do not exceed 1 metre above finished ground level. The proposed development conforms to this requirement and the proposed earthworks will achieve a positive outcome for the area because they will achieve basement levels with minimal protrusion to a maximum of 1 metres above finished ground level which will serve to reduce the apparent mass and scale of the development and provide an improved relationship</p>

Council Issue	Response
	<p>between the buildings and surrounding public domain. As the basement protrusion is limited to a maximum of only 1 metre above finished ground level and with a landscaped treatment around the perimeter of the basements, the basements will not result in an adverse impact to the quality of the primary through site link.</p>
<p>Building separation</p> <p><i>At points along the primary site link, it appears that the basement protrudes above natural ground relative to Stage 6. This situation is not acceptable and warrants mitigation primarily through the landscape design response</i></p>	<p>The maximum protrusion of the basement level for Stage 6 above the finished ground level is 1m which is a conventional and acceptable outcome.</p>
<p>Privacy and building configuration</p> <p><i>Generally, the configuration and internal planning of the buildings is clear and strong. Natural light and ventilation is apparent in many common circulation spaces. The Panel encourages a similar approach to internal corridors in Stage 7.</i></p>	<p>Turner Architects have reviewed Stage 7 to investigate locations where additional natural light can be provided to the internal corridors via external window or skylight, or borrowed natural light. Natural light has been increased as follows:</p> <p>Stage 7A</p> <ul style="list-style-type: none"> • GL (entry level) • L1 (new window to double height lobby) • L4 (new skylights over) <p>Stage 7B</p> <ul style="list-style-type: none"> • LG (entry level) • GL (new window to double height lobby) • L5 (glazed at NW end) • L6 (glazed at SE end)  <p style="text-align: right;">Sketch Plan L1 Stage 7A 1:100 @ a3 17.06.15</p>

Council Issue

Response



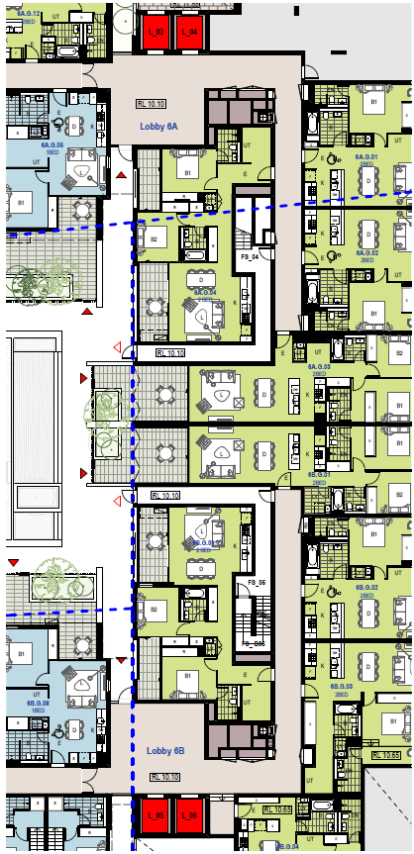
Sketch Plan L4
 Stage 7A
 1:100 @ A3
 17.06.15



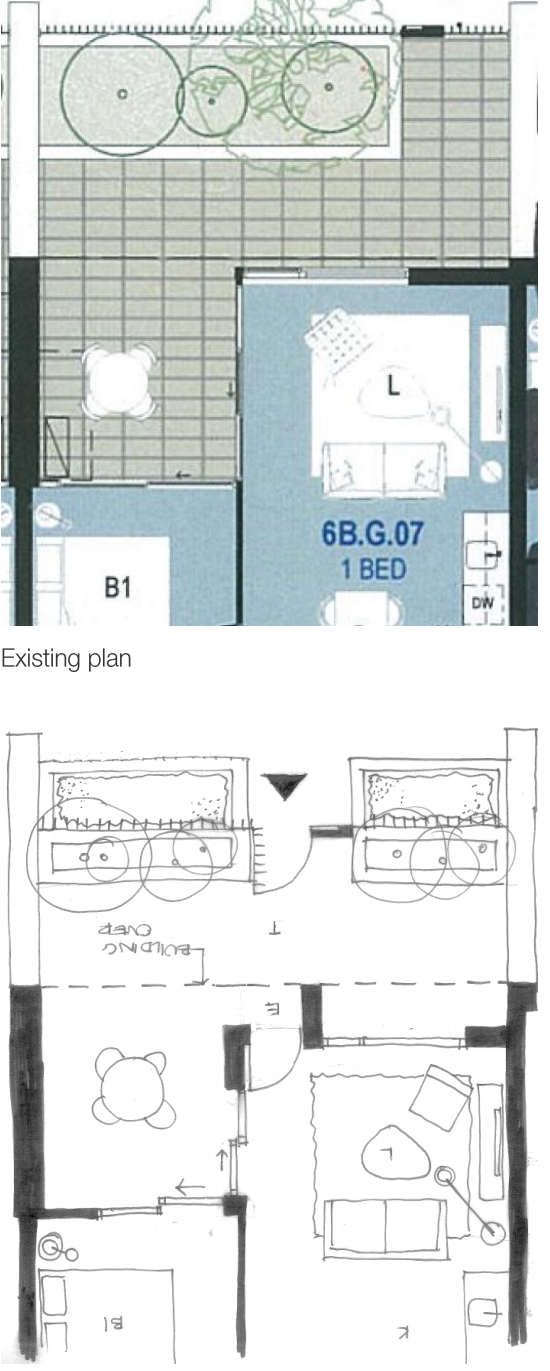
Sketch plan GL
 Stage 7B
 1:100 @ A3
 17.06.15

The re-entrant corners of the building form of the courtyard building in Stage 6 creates inherent proximity between adjacent apartments, which

Turner Architects have reviewed the configuration of ground floor apartments in Stage 6 and propose an amended to the location of the building entries and

Council Issue	Response
<p><i>appears, generally, to be acceptable, mitigating privacy and managing cross viewing.</i></p> <p><i>The Panel is concerned, however, with this configuration at ground level where communal open space connects to Lobby 6A and 6B. Here, residents using the communal open space are brought into close proximity with habitable rooms through a relatively constrained common corridor. Bedroom balconies (unit 6A.G.04 and 6B.G.09) and living room windows (units 6A.G.05 and 6B.G.08) appear to open directly onto these common circulation spaces without any mitigation of visual or acoustic privacy conflicts that will occur.</i></p>	<p>associated reconfiguration of apartments to reduce the proximity of habitable rooms to common circulation spaces.</p> <p>This is illustrated in the images below of the originally proposed ground floor arrangement and the amended arrangement. Of Units 6A.G.04, 6A.G.03, 6B.G.01 and 6B.G.09.</p>  <p>Originally proposed ground floor of Stage 6</p>

Council Issue	Response
	 <p data-bbox="794 1086 1273 1115">Amended proposal for ground floor of Stage 6</p>
<p data-bbox="204 1137 534 1167"><i>Residential entry and address</i></p> <p data-bbox="204 1182 762 1480"><i>The proposal provides adequate residential address to both Constitution Road and Nancarrow Avenue. Residential lobbies are clearly accessed from public space and are generally offered a sense of space and volume. Ground floor apartments are also configured to address streets and public site links. The Panel encourages these individual ground floor addresses to be configured as formal dwelling entries (rather than as a secondary, purely private address).</i></p>	<p data-bbox="794 1137 1353 1435">Turner Architects have reviewed the configuration of ground floor entries into apartments in Stage 6 and 7. The ground floor entries to the apartments are proposed to be amended by formalising the secondary entries with rearranging the 'hard' landscaping and gateway and by providing a domestic style entry door to give better distinction to the front door. An example for Unit 6B.G.07 is illustrated below:</p>

Council Issue	Response
	 <p>Existing plan</p> <p>Proposed plan</p>
<p>Solar access</p> <p><i>The proposal needs to demonstrate the extent of any self-shadowing impacts. It would appear that elements of Stage 6B, particularly at lower levels, will be compromised by overshadowing. Although consistent with the Concept Plan envelope approval, this self-shadowing should be, in part, offset by the provisions of Condition 21 'enhanced amenity'.</i></p>	<p>The solar access analysis undertaken by Turner Architects and submitted with the development application did take into account self shadowing, as evidenced by the fact that the lower apartments in the southern 'wing of Stage 6 are marked as not receiving solar access whilst apartments on the same alignment higher in the building do benefit from solar access. Elevation solar access diagrams will be provided with the amended architectural package to</p>

Council Issue	Response
	verify this.

In summary the following final documentation will be provided to Council in early July 2015

- An amended final architectural package prepared by Turner Architects
- Amended landscape plan dealing with the resolution of the rooftop landscape spaces
- Amended stormwater concept plan prepared by Harris Page

The following matters are being progressed, however, are proposed to be dealt with via a deferred commencement condition of consent given that they are essentially engineering matters which can be readily resolved in time:

- Final site stormwater design (overland flow path).
- Final civil road design for Constitution Road and Nancarrow Avenue.
- Final public domain design.
- Final landscape design associated with the stormwater design through the site.

This letter has been prepared and relies on the accuracy and factual integrity of the various consultants documentation that accompany this application. Sutherland & Associates Planning has wholly relied on the technical information, professional opinion and supporting justification in these reports, as prepared by professionals in their field, for the preparation of this letter and the satisfaction of the various issues raised by Council.

Should you have any concerns or queries with regard to the above, please contact me on 0410 452 371.

Yours faithfully



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STANBURY
ASSOCIATES**

ABN: 79 943 737 368

**AMENDED INTERNAL TRAFFIC ASSESSMENT
PROPOSED RESIDENTIAL DEVELOPMENT
SHEPHERDS BAY - STAGES 6 & 7
NANCARROW AVENUE
MEADOWBANK**

Ref: 14-217-4

JULY 2015

AMENDED PLANS
10 JUL 2015

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APPENDICES

- 1. Vehicle Swept Path Plans

1. INTRODUCTION

The Practice of Thompson Stanbury Associates has been commissioned by Holdmark NSW Pty. Ltd. to prepare an Internal Traffic Assessment accompanying a Development Application (DA) lodged with Ryde City Council. The subject DA proposes a residential development comprising 311 apartments (herein referred to as 'Stages 6 & 7') forming part of an approved concept plan for redevelopment of land bounded by Constitution Road to the north, Bowden Street to the west, Belmore Street to the east and Parramatta River to the south, within the Meadowbank Employment Area and known as Shepherds Bay.

The external traffic impacts of the approved concept plan have been recently assessed by others and approved by the relevant authorities as part of the concept approval process (Concept Approval No. MP09_0216). The purpose of this report is therefore to assess the internal development traffic considerations. Specifically, this report:

- Assesses the suitability of the proposed vehicular access arrangements based on standards specified by the Australian Standards;
- Assesses the adequacy, or otherwise, of the proposed off-street parking provision having regard to the rates specified by Ryde City Council; and
- Assesses the proposed parking layout with respect to internal circulation and vehicle manoeuvrability.

Throughout this report, reference is made to the following documents:

- Australian Standard *Parking Facilities Part 1: Off-Street Parking* (AS 2890.1-2004);
- Australian Standard *Parking Facilities Part 2: Off-Street Commercial Vehicles Facilities* (AS2890.1-2004);
- Australian Standard *Parking Facilities Part 6: Off-Street Parking for People with Disabilities* (AS2890.6-2009); and
- Ryde City Council's *Development Control Plan 2014* (DCP 2014).

The report should be read in conjunction with architectural plans prepared by Turner.

2. PROPOSED DEVELOPMENT

2.1 Background

A concept plan for the redevelopment of a parcel of land bounded by Constitution Road to the north, Bowden Street to the west, Belmore Street to the east and Parramatta River to the south was recently approved by the Department of Planning & Infrastructure (MP09_0216). The approved concept plan provides for 12 buildings accommodate mixed use development including residential, retail, commercial and community uses.

The concept approval incorporates a series of public road and infrastructure upgrades including but not limited to:

- The extension of Nancarrow Avenue to connect with Bowden Street;
- The implementation of Local Area Traffic Management (LATM) measures;
- Implementation of left in / left out arrangement at the intersection of Belmore Street and Hamilton Crescent;
- The installation of a pedestrian crossing facility at the intersection of Bowden Street and Nancarrow Avenue;
- The installation of a roundabout at the intersection of Belmore Street and Rothesay Avenue; and
- Implementation of left in / left out arrangement at the intersection of Belmore Street and Yerong Street.

A Development Application for Stage 1, involving a residential apartment building bounded by Belmore Street, Rothesay Avenue and Hamilton Crescent, was approved in March 2013. Construction works associated with the Stage 1 development are currently underway.

2.2 Proposed Development

The subject project involves the submission of a development application for the construction of Stages 6 & 7 of the abovementioned approved concept plan. The development application involves the construction of two residential apartment buildings containing a total of 311 dwellings as follows:

- Stage 6 is to comprise 202 dwellings as follows:
 - 75 one bedroom apartments;
 - 108 two bedroom apartments; and
 - 19 three bedroom apartments.

- Stage 7 is to comprise 109 dwellings as follows:
 - 59 one bedroom apartments;
 - 40 two bedroom apartments; and
 - 10 three bedroom apartments.

The buildings are proposed to be located to the within the western portion of the precinct, providing a frontage Nancarrow Avenue.

Stage 6 is proposed to provide three basement levels of car parking providing a total of 280 parking spaces, being accessed via a driveway connecting with Nancarrow Avenue in the south-eastern corner of the site.

Stage 7 is proposed to provide four basement levels of car parking providing a total of 147 parking spaces, being accessed via a driveway connecting with Nancarrow Avenue in the south-western corner of the site.

3. VEHICULAR ACCESS ARRANGEMENTS

Vehicular access to the Stage 6 & 7 buildings is proposed as follows:

- The Stage 6 building is proposed to be serviced by a 6.6m wide combined ingress / egress driveway connecting with Nancarrow Avenue in the south-eastern corner of the site; and
- The Stage 7 building is proposed to be serviced by a 6.6m wide combined ingress / egress driveway connecting with Nancarrow Avenue in the south-western corner of the site.

In order to undertake an assessment of the suitability of the proposed access arrangements, reference is made to AS2890.1-2004. This Standard provides driveway design requirements based on a number of site characteristics such as the land-use proposed, the number of spaces the driveway is to serve and the functional order of the access road. The following provides a summary of the pertinent characteristics of the subject proposal:

- The development involves a residential land-use;
- The Stage 6 and 7 driveways are proposed to service 280 and 147 parking spaces each; and
- Nancarrow Avenue performs a minor (non-arterial) function within the local road hierarchy.

Based on the above characteristics, Tables 3.1 and 3.2 of AS2890.1-2004 specify that, at minimum, a Category 2 type driveway is required, providing a 6-9m wide combined ingress / egress driveway. The proposed driveway designs suitably accord with this Standard requirement and are therefore considered to be satisfactory.

The relatively consistent vertical and horizontal alignment of Nancarrow Avenue at the proposed points of access are envisaged to result in adequate driver sight distance being provided to allow vehicles to safely observe other road users and undertake ingress/egress movements in a safe manner.

4. OFF-STREET PARKING

4.1 Car Parking

4.1.1 Stage 6

The proposed Stage 6 building provides parking over three levels containing 236 resident and 41 visitor spaces.

The subject site is subject to Ryde City Council's locally specific DCP 2014 which stipulates the following off-street parking requirements for high density residential development (Clause 2.2 of Section 9.3):

- 0.6 – 1.0 spaces per one bedroom dwelling*
- 0.9 – 1.2 spaces per two bedroom dwelling*
- 1.4 – 1.6 spaces per three bedroom dwelling*
- 1 visitor space per 5 dwellings*

Table 1 summarises the off-street resident and residential visitor parking required based on the above rates.

TABLE 1 SUMAMRY OF STAGE 6 CAR PARKING REQUIREMENTS					
	Proposed Development	Minimum		Maximum	
		Car Parking Rate	Car Parking Required	Car Parking Rate	Car Parking Required
Resident	75 x 1 bedroom units	0.6 spaces / unit	45	1 space / unit	75
	108 x 2 bedroom units	0.9 space / unit	98	1.2 spaces / unit	130
	19 x 3 bedroom units	1.4 spaces / unit	27	1.6 spaces / unit	31
Residential Visitor	202 units	0.2 spaces / unit	41	0.2 spaces / unit	41
		TOTAL	211	TOTAL	277

The subject development is therefore required to provide between 170 and 236 resident parking spaces and 41 visitor parking spaces.

The proposed parking provision of 236 resident and 41 visitor spaces, therefore suitably complies with Council's requirements.

Further to the resident and residential visitor parking provision, it is proposed that 3 car share parking spaces be provided within the Stage 6 basement parking area.

Whilst no car share parking requirements are contained within DCP 2014, it is understood that Council requires car share parking spaces to be provided at a rate of 1 car share space per 90 resident and residential visitor spaces. Based on the Stage 6 resident and residential visitor parking provision of 277 spaces, a car share provision of 3 spaces is required for the Stage 6 development. The proposed provision of 3 car share spaces is therefore considered to be satisfactory.

4.1.2 Stage 7

The proposed Stage 7 building provides parking over four levels containing 123 resident and 22 visitor parking spaces.

Table 2 summarises the off-street resident and residential parking required based on the previously presented Council rates.

TABLE 2 SUMMARY OF STAGE 7 CAR PARKING REQUIREMENTS					
	Proposed Development	Minimum		Maximum	
		Car Parking Rate	Car Parking Required	Car Parking Rate	Car Parking Required
Resident	59 x 1 bedroom units	0.6 spaces / unit	36	1 space / unit	59
	40 x 2 bedroom units	0.9 space / unit	36	1.2 spaces / unit	48
	10 x 3 bedroom units	1.4 spaces / unit	14	1.6 spaces / unit	16
Residential Visitor	109 units	0.2 spaces / unit	22	0.2 spaces / unit	22
		TOTAL	108	TOTAL	145

The subject development is therefore required to provide between 86 and 123 resident parking spaces and 22 visitor parking spaces.

The proposed parking provision of 123 resident and 22 visitor therefore suitably complies with Council's parking requirements.

Further to the resident and residential visitor parking provision, it is proposed that 2 car share parking spaces be provided within the Stage 7 basement parking area.

Based on the previously presented Council requirement of 1 car share space per 90 resident and residential visitor spaces, the Stage 7 resident and residential visitor parking provision of 145 spaces necessitates a car share provision of 2 spaces. The proposed provision of 2 car share spaces is therefore considered to be satisfactory.

In addition to the above resident, residential visitor and car share parking provision, it is also proposed that a single car wash space be provided.

4.2 Bicycle Parking

4.2.1 Stage 6

The proposed Stage 6 building provides a total of 28 parking spaces for bicycles.

Clause 2.7, Section 9.3 of DCP 2014 and Condition 13 of Consent MP09_0216 specifies the following bicycle parking requirements

1 bicycle space per 10 car spaces

Based on a total car parking provision of 280 spaces, a total of 28 bicycle parking spaces are required. Compliance with the relevant bicycle parking requirements is therefore achieved.

4.2.2 Stage 7

The proposed Stage 7 building provides a total of 15 parking spaces for bicycles.

Clause 2.7, Section 9.3 of DCP 2014 and Condition 13 of Consent MP09_0216 specifies the following bicycle parking requirements

1 bicycle space per 10 car spaces

Based on a total car parking provision of 147 spaces, a total of 15 bicycle parking spaces are required. Compliance with the relevant bicycle parking requirements is therefore achieved.

5. INTERNAL CIRCULATION

5.1 Passenger Vehicle Circulation

The Stages 6 and 7 buildings are proposed to be serviced by three and four basement parking levels respectively containing a series of 90 degree angled parking rows accessed via internal circulating aisles. The internal circulating aisles have been restricted to one-way circulated where practicable to assist internal manoeuvring and limit potential conflicts.

In order to assess the suitability of the proposed internal circulation design servicing Stages 6 & 7, an audit of the architectural plans has been undertaken with respect to the design criterion of AS2890.1-2004. A schedule of compliance with the relevant sections AS2890.1-2004 is contained within **Table 1** provided overleaf.

TABLE 1 ASSESSMENT OF COMPLIANCE OF ON-SITE PARKING AREA WITH AUSTRALIAN STANDARD (AS 2890.1-2004)			
Section	Requirement	Provided	Compliance
2.3.3	Max 100m parking module length	Maximum 80m	Yes
2.4.1	Standard 90 degree space width = 2.4m	Minimum space width = 2.4m	Yes
2.4.1	Small 90 degree space width = 2.3	Minimum space width = 2.3m	Yes
2.4.1	Standard 90 degree space length = 5.4m	Minimum space length = 5.4m	Yes
2.4.1	Small 90 degree space length = 5.0m	Minimum space length = 5.0m	Yes
2.4.1 (b) (ii)	300mm additional width against obstruction	Minimum additional width = 300mm	Yes
2.4.2 (a)	Parking aisle adjacent to 90 degree open spaces 5.8m	Minimum parking aisle = 5.8m	Yes
2.4.2 (c)	Blind aisles to be extended a minimum of 1m beyond last space	Blind aisles extended at least 1m in all cases	Yes
2.4.6	Maximum gradients, 1:20 parallel to angle of parking and 1:16 @ 90 degrees to angle of parking	Parking modules are close to level	Yes
2.5.2 (a) (i)	One-way straight roadway / ramp, at least 3.0m wide	Minimum 3.0m wide	Yes
2.5.2 (a) (ii)	Two-way straight roadway / ramp, at least 5.5m wide	Minimum 5.5m	Yes
2.5.2 (c)	Provision to be made at intersections to accommodate B85 and B99 vehicle in combination	B85 and B99 vehicles accommodated in combination	Yes
2.5.3 (a)	Maximum grade of ramp = 1 in 4	Maximum grade = 1 in 5	Yes
2.5.3 (d)	Maximum change in grade = 1 in 8	Maximum change in grade = 1 in 8	Yes
3.2.4	Sight distance at driveway minimum 45m	>45m	Yes
3.4.2	Sight distance triangle 2.5m x 2m at corner of driveway must be clear of obstructions	Sight distance triangle provided at Nancarrow Avenue	Yes
3.3 (a)	Maximum grade over property line / building alignment / pedestrian path and within 6m of property boundary = 1 in 20	1 in 20	Yes
5.2	Columns to be located within 750-1750mm back from opening of space or last 1750mm of the space	Columns located outside of nominated design envelope	Yes
5.3	Minimum headroom = 2.2m	Minimum headroom = 2.2m	Yes

It is therefore considered that the proposed car park layouts servicing the Stage 6 and 7 buildings suitably conform to the intentions of the requirements of AS2890.1-2004.

Further to the above, the following design criterion is provided with respect to disabled parking spaces in accordance with AS2890.6-2009:

- Visitor and residential disabled space width = 2.4m (plus adjoining 2.4m wide shared area);
- Visitor and residential disabled parking space length = 5.4m; and
- Clearance above disabled spaces = 2.5m.

In consideration of this and the above discussion, the proposed internal passenger vehicle circulation arrangements servicing Stages 6 & 7 are satisfactory.

In order to demonstrate the internal passenger vehicle manoeuvrability within the parking area, this Practice has prepared a number of swept path plans (scale 1:200 at A3) which are included as **Appendix 1**. The turning paths provided on the plans have been generated using Autoturn software and derived from B85 and B99 vehicle specifications provided within AS2890.1-2004.

Section B4.4 of AS2890.1-2004 states the following with regard to the use of templates to assess vehicle manoeuvring:

'Constant radius swept turning paths, based on the design vehicle's minimum turning circle are not suitable for determining the aisle width needed for manoeuvring into and out of parking spaces. Drivers can manoeuvre vehicles within smaller spaces than swept turning paths would suggest.'

It would therefore appear that whilst the turning paths provided within AS 2890.1 - 2004 can be utilised to provide a 'general indication' of the suitability or otherwise of internal parking and manoeuvring areas, vehicles can generally manoeuvre more efficiently than the paths indicate. Notwithstanding this, the swept path plans illustrate that passenger vehicles can manoeuvre throughout and enter and exit the most difficult passenger vehicle parking spaces within the parking areas. The proposed site layout as it relates to passenger vehicle manoeuvrability is considered satisfactory.

5.2 Service Vehicles

Waste collection activities associated with the Stage 6 and 7 buildings is proposed to be undertaken within an indented bay within Nancarrow Avenue adjacent to the south-western corner of the Stage 6 building.

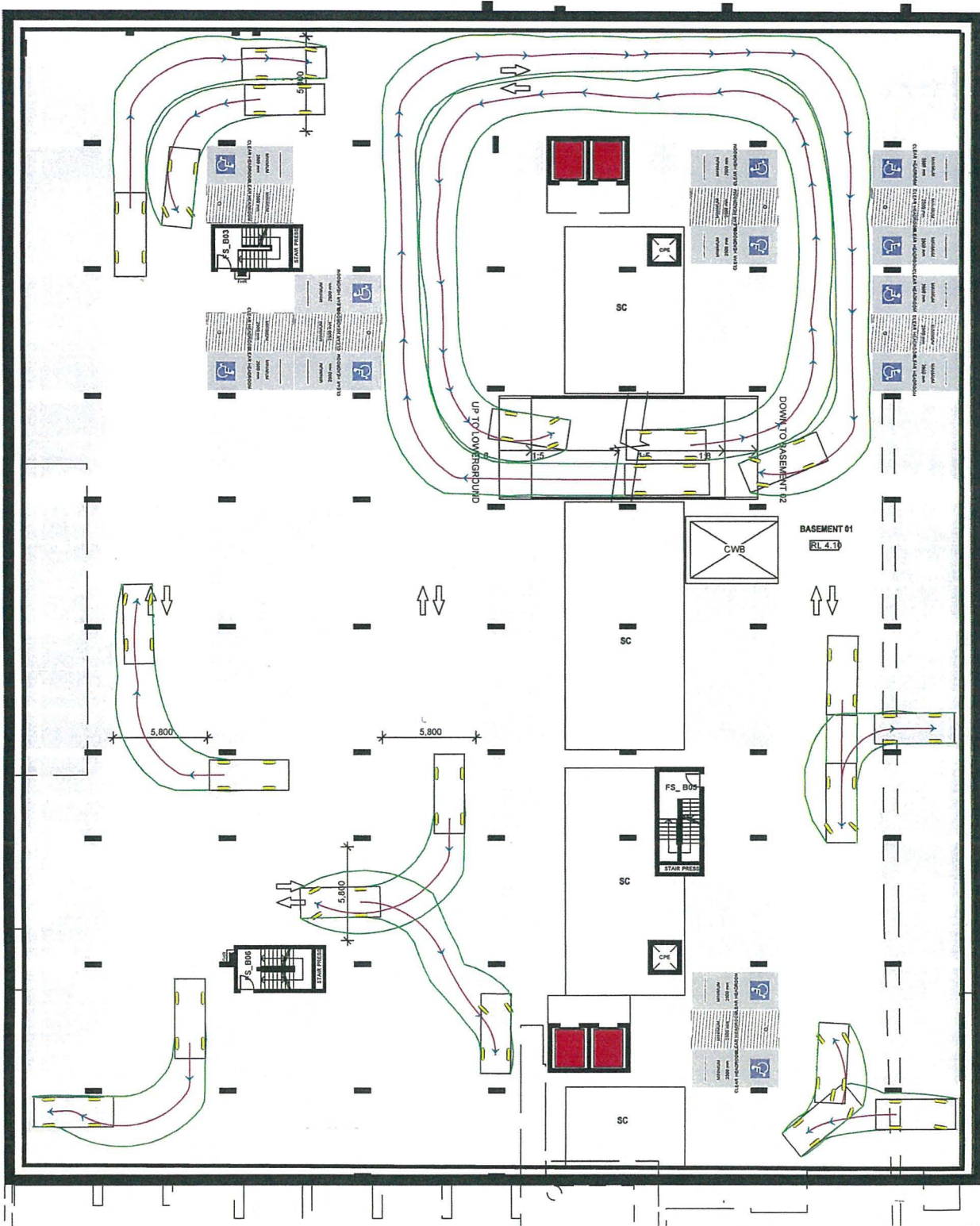
6. CONCLUSION

This Practice has undertaken an assessment of the site access and internal traffic considerations of a residential development comprising 311 apartments within Stages 6 & 7 of the Shepherds Bay redevelopment forming part of an approved concept plan for redevelopment of land bounded by Constitution Road to the north, Bowden Street to the west, Belmore Street to the east and Parramatta River to the south. Based on this assessment, the following conclusions are now made:

- The proposed access arrangements comply with the minimum requirements of AS2890.1-2004 with respect to the land-use proposed, the capacity of the parking areas serviced and the functional order of the frontage road;
- The proposed off-street parking provision accords with Council's relevant DCP requirements;
- The proposed internal circulation and servicing arrangements suitably conforms to the intentions of the relevant requirements of AS2890.1-2004 and AS2890.6-2009; and
- The proposed internal circulation and manoeuvring arrangements are capable of providing for safe and efficient vehicular movements during peak times.

Based on the contents of this report and the conclusions contained herein, we consider that there are no internal traffic related issues that should prevent approval of the subject application.

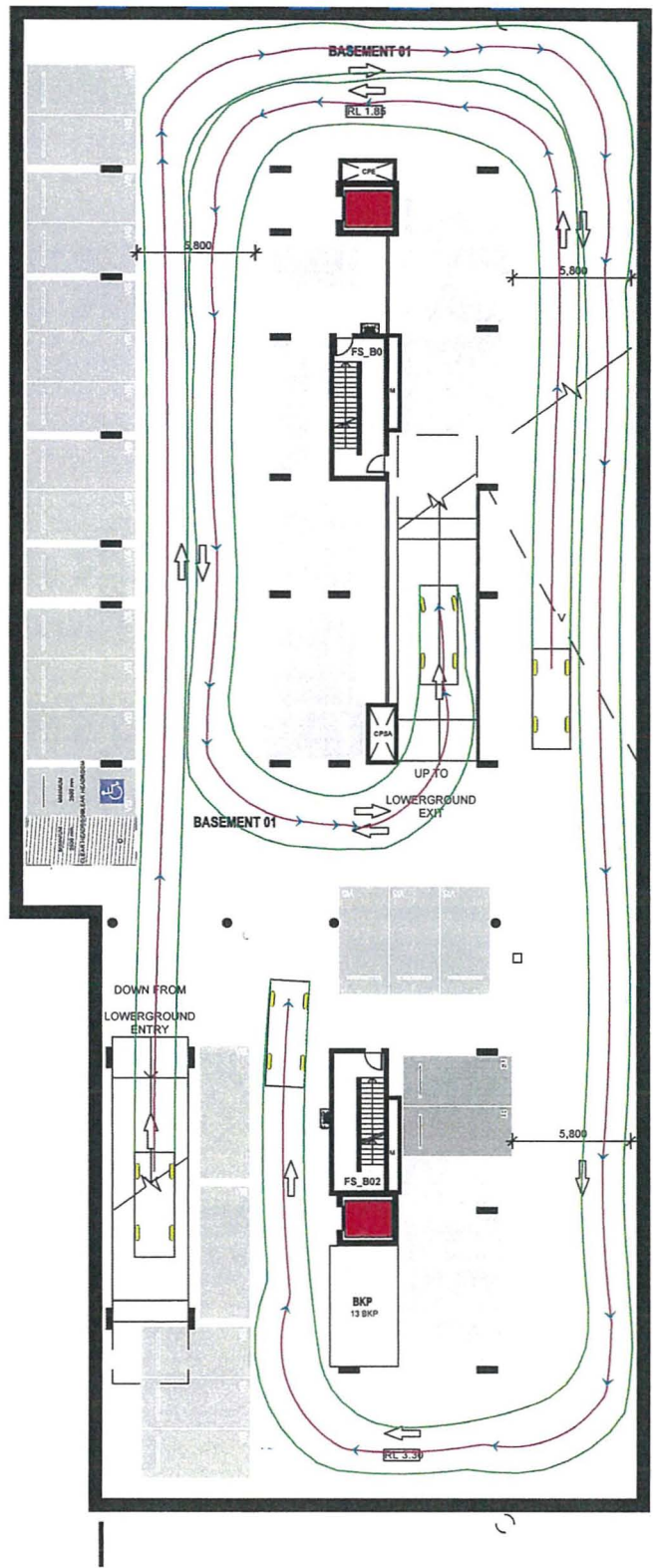
APPENDIX 1



NOTES:
 1. THIS PLAN IS BASED ON ARCHITECTURAL PLANS PREPARED BY TURNER.
 2. THE TURNING PATHS USED ON THIS PLAN ARE GENERATED USING AUTOTURN SOFTWARE AND DERIVED FROM VEHICLE SPECIFICATIONS PROVIDED BY ASD890.1-2004 FOR B85 AND B99 PASSENGER VEHICLES.

THOMPSON STANBURY ASSOCIATES
 PROPOSED RESIDENTIAL DEVELOPMENT
 STAGE 6 SHEPHERDS BAY
 PASSENGER VEHICLE MOVEMENTS
 BASEMENT LEVEL 1 & 2

SCALE: 1:250 @ A3
 FILE 14-217-1
 DATE 02/01/15
 SHEET 3

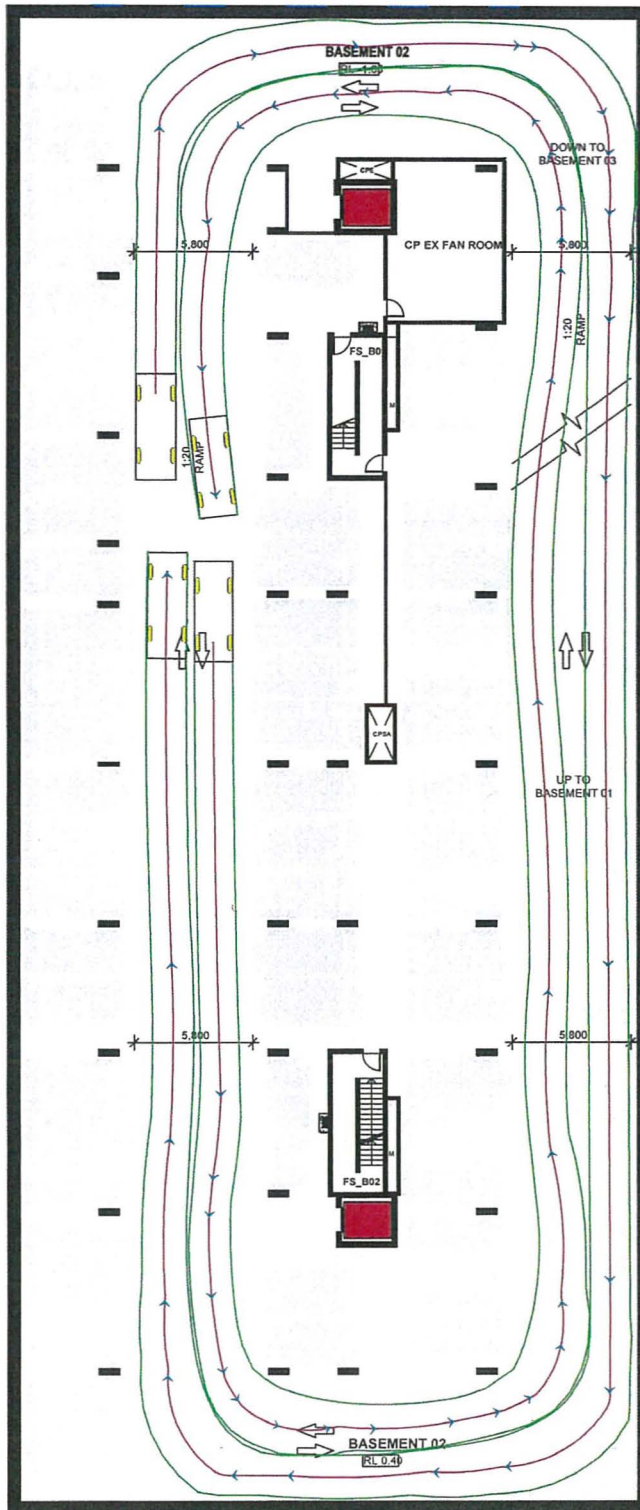


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THOMPSON STANBURY ASSOCIATES
 PROPOSED RESIDENTIAL DEVELOPMENT
 STAGE 7 SHEPHERDS BAY
 PASSENGER VEHICLE MOVEMENTS

SCALE: 1:250 @ A3
 FILE 14-217-1
 DATE 02/01/15
 SHEET 4

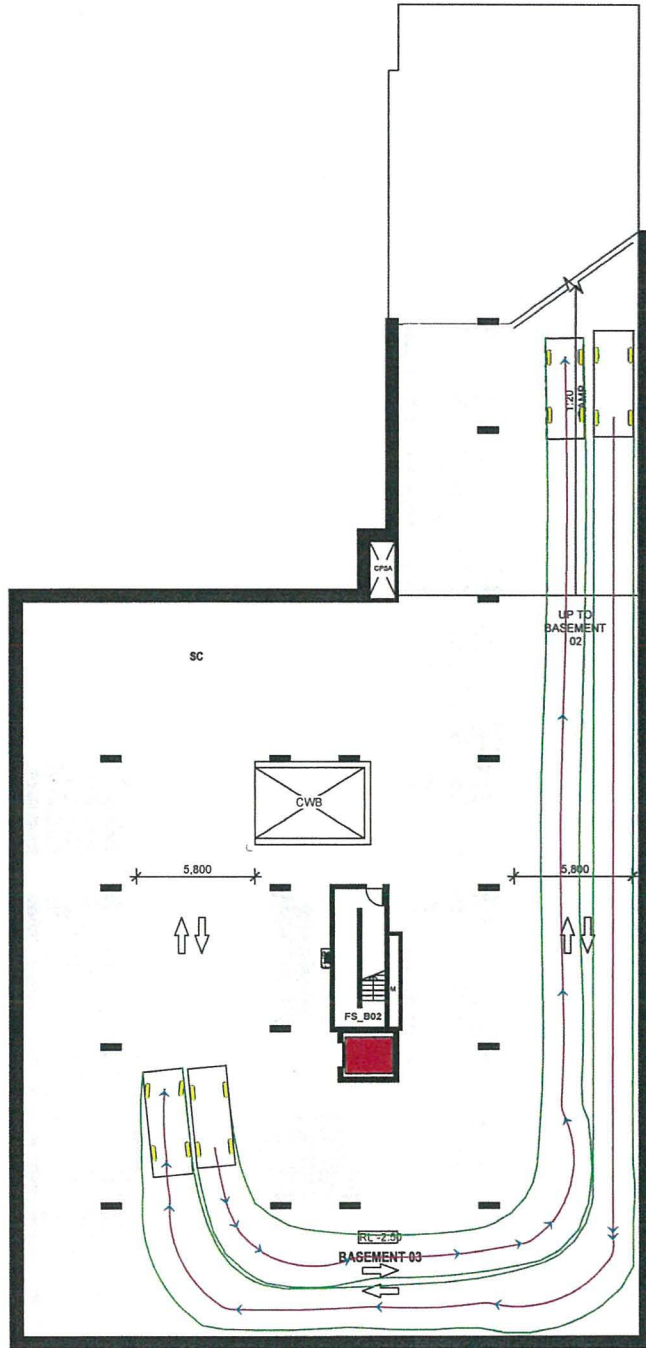
BASEMENT LEVEL 1



NOTES:
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THOMPSON STANBURY ASSOCIATES
 PROPOSED RESIDENTIAL DEVELOPMENT
 STAGE 7 SHEPHERDS BAY
 PASSENGER VEHICLE MOVEMENTS
 BASEMENT LEVEL 2

SCALE: 1:250 @ A3
 FILE 14-217-1
 DATE 02/01/15
 SHEET 5



NOTES:
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THOMPSON STANBURY ASSOCIATES
 PROPOSED RESIDENTIAL DEVELOPMENT
 STAGE 7 SHEPHERDS BAY
 PASSENGER VEHICLE MOVEMENTS

SCALE: 1:250 @ A3
 FILE 14-217-1
 DATE 02/01/15
 SHEET 5

BASEMENT LEVEL 3

Shepherds Bay > Stage 6 & 7 Development Application



GENERAL	Cover Sheet & Drawing List	A-DA-001-001	NTS
100 Context	Context Plan Site Analysis Plan	A-DA-100-010 A-DA-100-030	NTS 1:500
101 Site Plan	Demolition Plan Site Plan / Roof Plan	A-DA-101-010 A-DA-101-090	1:200 1:200
110 GA Plans	Basement 03 Basement 02 Basement 01 Lower ground Ground Level 01 Level 02 Level 03 Level 04 Level 05 Level 06 Level 07 Level 08 (Mezzanine) Level 09 (Roof)	A-DA-110-060 A-DA-110-070 A-DA-110-080 A-DA-110-090 A-DA-110-100 A-DA-110-110 A-DA-110-120 A-DA-110-130 A-DA-110-140 A-DA-110-150 A-DA-110-160 A-DA-110-170 A-DA-110-180 A-DA-110-190	1:200 1:200 1:200 1:200 1:200 1:200 1:200 1:200 1:200 1:200 1:200 1:200 1:200 1:200 1:200
210 GA Elevation	North East Elevation (Constitution Road) South East Elevation South West Elevation (Nancarrow Avenue) North West Elevation South West Elevation Building 7 North West Elevation Building 6	A-DA-210-010 A-DA-210-020 A-DA-210-030 A-DA-210-040 A-DA-210-050 A-DA-210-060	1:200 1:200 1:200 1:200 1:200 1:200
310 GA Sections	Section AA Section BB Section CC Section DD	A-DA-310-010 A-DA-310-020 A-DA-310-030 A-DA-310-040	1:200 1:200 1:200 1:200
450 Facade Details	Facade Section	A-DA-450-010	1:50
720 Shadow Diagrams	Winter Shadow Diagrams	A-DA-720-010	1:1000
730 Amenity Diagrams	Apartment Amenity 01 Apartment Amenity 02	A-DA-730-010 A-DA-730-020	1:500 1:500
740 Envelope Comparison Diagrams	Stage 7 Pop Up Zone Stage 6 Pop Up Zone Pop Up Analysis Building Envelope Diagrams 1/2 Building Envelope Diagrams 2/2	A-DA-740-010 A-DA-740-030 A-DA-740-050 A-DA-740-110 A-DA-740-111	1:500 1:500 1:200 1:500 1:500
810 Perspectives	Perspectives 01 Perspectives 02 Perspectives 03	A-DA-810-010 A-DA-810-020 A-DA-810-030	NTS NTS NTS
840 Solar Analysis	Courtyard North East Self Shadowing Courtyard North West Self Shadowing	A-DA-840-010 A-DA-840-020	1:500 1:500

AMENDED PLANS
10.02.2018

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ROTHERSAY AVENUE DEVELOPMENTS P/L

Project Title
SHEPHERDS BAY - STAGE 6 & 7
Nancarrow Ave, Meadowbank NSW 2114 Australia

Scale
NTS

Drawn by
AC, JF, CM

Check by
E

Project No.
14005

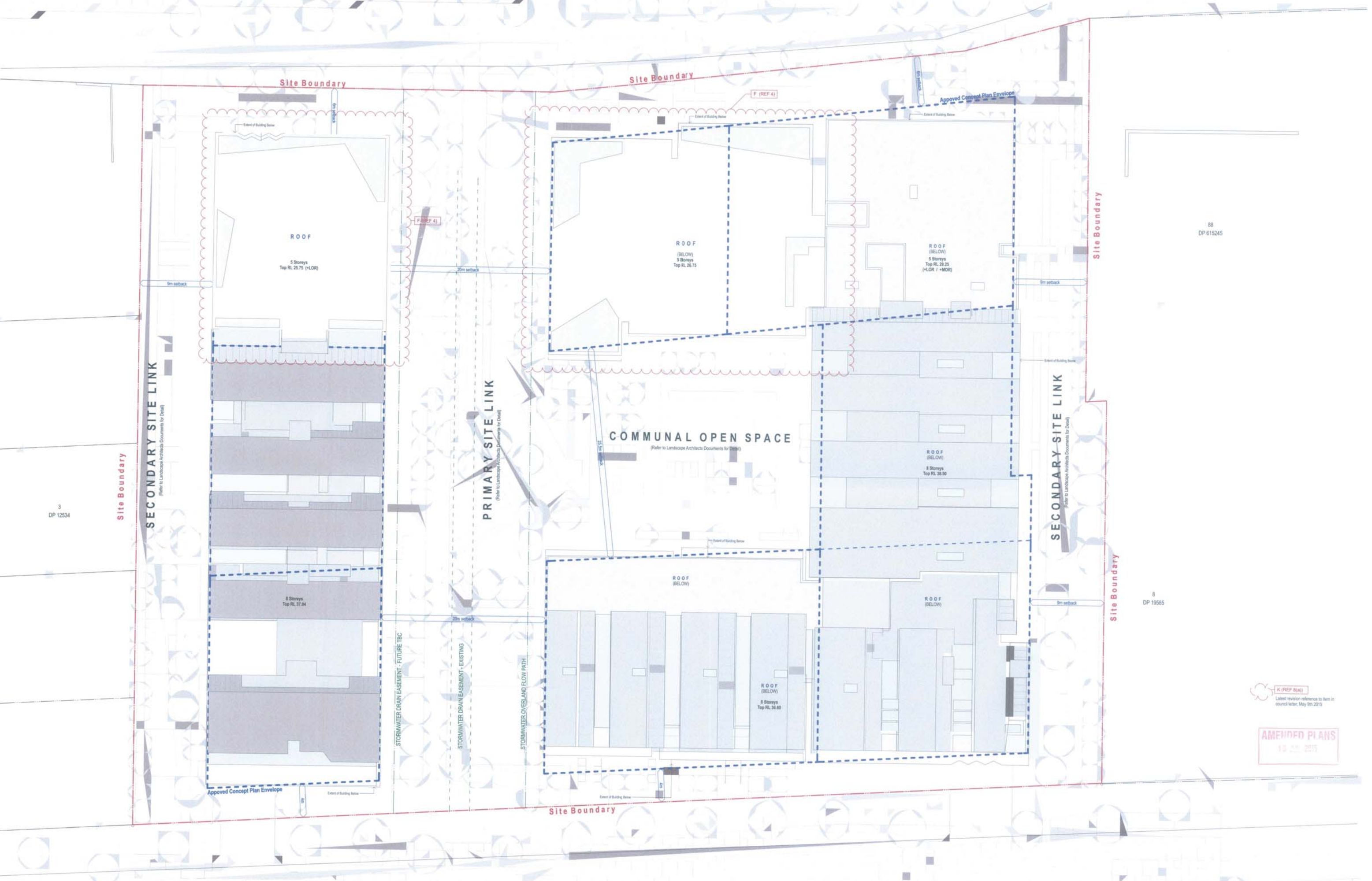
Dwg No.
A-DA-001-001

Revision
E

Approved by
Council - Addendum to DA submission, Ref 10 (Solar Access)

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3
DP 12534

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K (PREP REA)
Latest revision reference to item in council letter, May 9th 2015

AMENDED PLANS
13 JUL 2015

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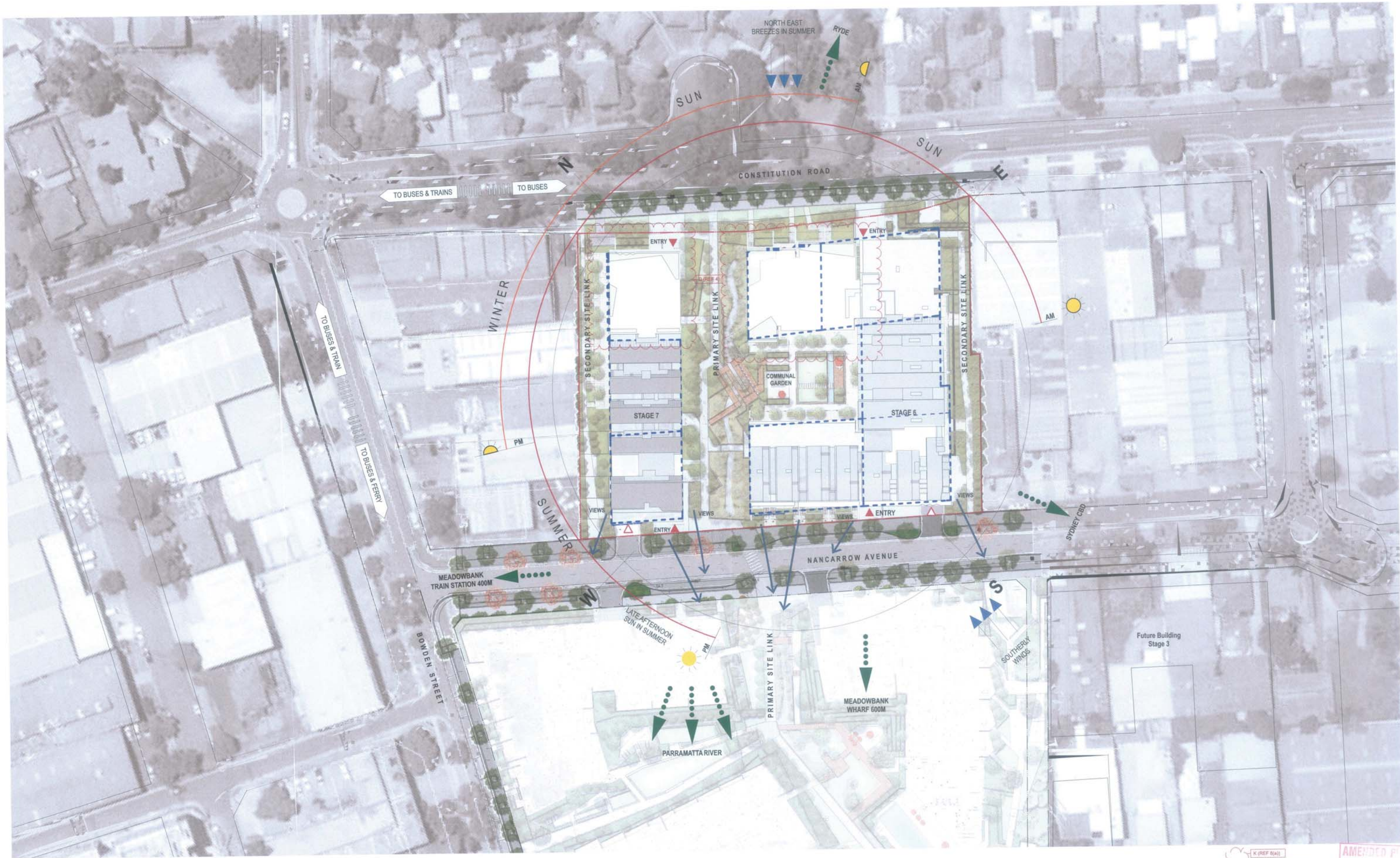
LEGEND
 - - - - - Proposed Site Boundary
 - - - - - Existing Adjoining Site Boundary
 - - - - - Approved Building Envelope Stage 6-7
 - - - - - Proposed Roof Site Plan
 (Subject to further modification)

NANCARROW AVENUE

SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia
 Drawing Title
 Site Plan
 Site Plan/Roof Plan

F	03/07/15	JF	Council - Update to DA submission
E	05/07/15	JP	DA Council
Rev	Date	Approved by	Revision Notes
Scale	1:500 @A1, 50%@A3	Project No.	14005
Status		Drawn by	AC, JF, CM
		Rev	F
		Draw No.	A-DA-101-090

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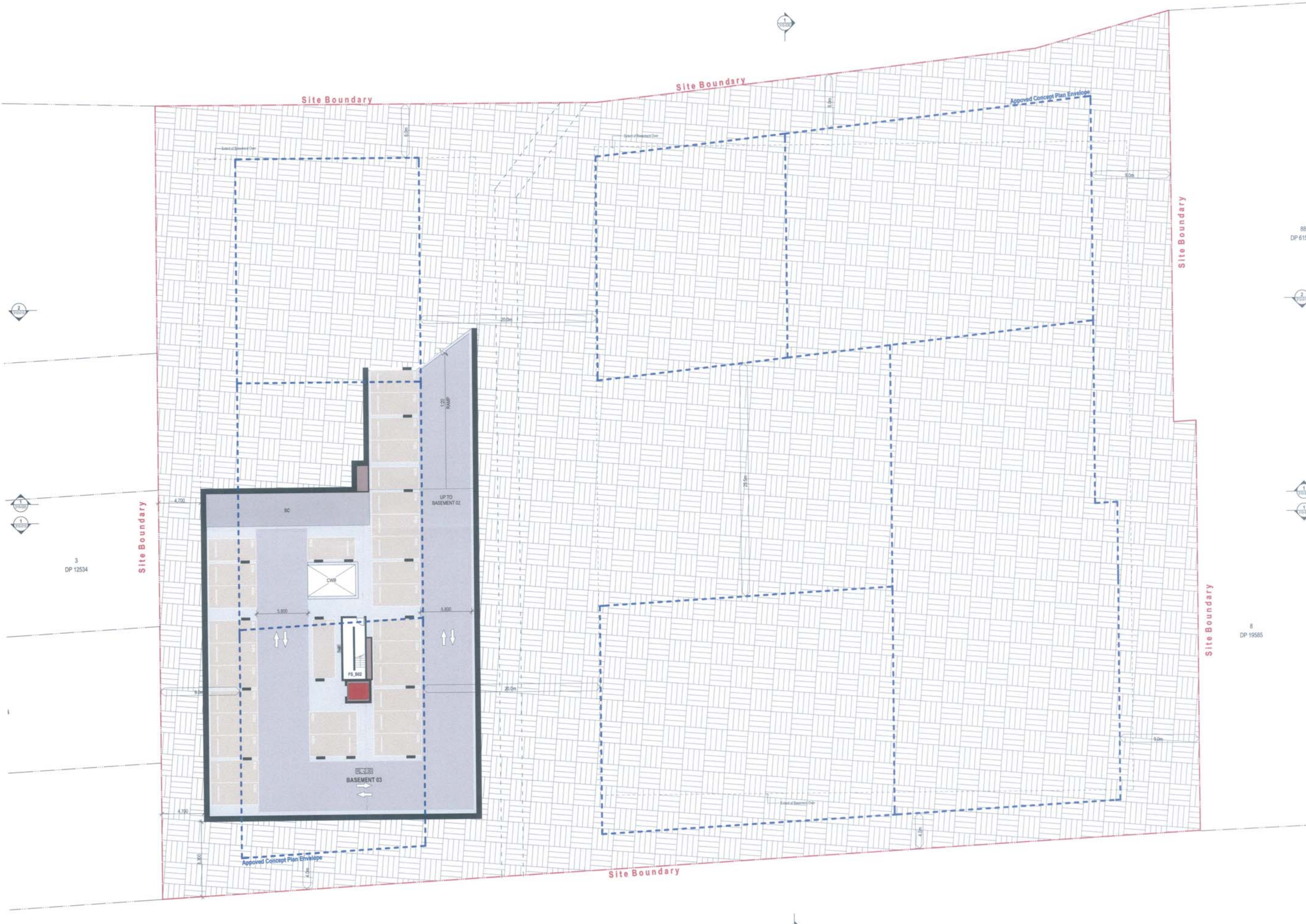
AMENDED PLANS
 10 2015

D	03/07/15	JF	Council - Update to DA submission
C	05/07/15	JF	DA-Council
Rev	Date	Approved by	Revision Notes
Scale	1:500 @A1, 50% @A3	Project No.	14005
Status		Drawn by	AC, JF, CM
		Rev	D
		Dwg No.	A-DA-100-030

Project Title
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

Drawing Title
 Context
 Site Analysis Plan





Legend

AC	Air Conditioning
B	Bathroom
B1,2	Bedroom 1, Bedroom 2, etc
BAL	Balustrade
BYP	Bicycle Parking
BY	Balcony
CLNR	Cleaner Store
COMS	Communications Services
CPE	Car Park Exhaust
CS	Car Share Parking Bay
CWB	Car Wash Bay
CY	Courtyard
D	Dining
DW	Dishwasher
E	Entry
ELEC	Electrical Services
EM	Emergency Vehicle
EN	Ensuite
EXH	Exhaust
FEX	Fire Extinguisher
FCC	Fire Control Centre
FFL	Finished Floor Level
FHR	Fire Hose Reel
FIP	Fire Indicator Panel
FMP	Fire Metic Panel
FEP_01,02	Fire Egress Passage No 1, 2, etc
FS_01,02	Fire Stair No 1, 2, etc
GR	Garbage Room
GHR	Garbage Holding Room
GL	Ground Line
H	Hydraulic Services
HWU	Hot Water Unit
K	Kitchen
L_01,02	Lift No 1, 2, etc
L	Living
LB	Loading Bay
LY	Laundry
LG	Lower Ground
LV	Louvre
M	Mechanical Services
MBX	Mail Box Assembly
MDR	Metal Deck Roofing
MSB	Main Switch Board Service
MTR	Meter
NGL	Natural Ground Level
P	Pantry
R	Roof
RES	Refrigerator
RF	Relative Level to AHD
RL	Relative Level to AHD
RWT	Rain Water Tank
S	Store
SC	Storage Cage
SCN	Screen
SM	Similar
SKL1	Skylight 1
ST_01	Stair No 1, 2, etc
TCE	Terrace
UNO	Unless Noted Otherwise
UG	Underground
US	Understorey
UT	Utility Space
V	Void
VIS	Visitor
VS	Ventilation Shaft
WC	Walk in Robe
WR	Washing Machine
WM	Washing Machine
▲	Entry Point
▲	Egress Point
■	Residential Area
■	Lift (L1, L2 etc)
■	Relative Level to AHD
○	Adaptable Unit
○	PPR building envelope
○	K (REF. REA)
○	Latest revision reference to item in council letter, May 9th 2015
○	PPR Building setback zone i.e. 4.0m
○	Maximum encroachment into building setback zone

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DESIGN INTENT NOTES
 Internal layouts shown are indicative only for information purposes and are subject to further design development and change.
 Window locations, if shown, are indicative only.
 Louvre panels, if shown, are indicative only.
 All dimensions and levels shown are approximate.
 Any finishes nominated are indicative only and subject to change.
 Annotations shown on the facade are indicative only and are subject to further design development and change.
 Storage situations and areas are not necessarily shown on the drawings and are subject to change.

Project Title
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

Drawing Title
 GA Plans
 Basement 03

AMENDED PLANS
 10 JUL 2015

K	03/07/15	JF	Council - Update to DA submission
J	05/01/15	JF	DA-Council
Rev.			Revision Notes
Scale	1:200 @A1, 50%@A3	14005	AC, JF, CM
Sheet		A-DA-110-060	K

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Legend

AC	Air Conditioning
B	Bedroom
B1,2	Bedroom 1, Bedroom 2, etc.
BAL	Balkonade
BKP	Bicycle Parking
BY	Balcony
CLNR	Cleaner Store
COMS	Communications Services
CPE	Car Park Exhaust
CS	Car Share Parking Bay
CWB	Car Wash Bay
CY	Courtyard
D	Dining
DW	Dishwasher
E	Entry
ELEC	Electrical Services
EM	Emergency Vehicle
EN	Ensuite
EXH	Exhaust
FEX	Fire Extinguisher
FCC	Fire Control Centre
FFL	Finished Floor Level
FHR	Fire Hose Reel
FIP	Fire Indicator Panel
FMP	Fire Metic Panel
FEP_01,02	Fire Egress Passage No. 1, 2, etc.
FS_01,02	Fire Stair No. 1, 2, etc.
GR	Garbage Room
GHR	Garbage Holding Room
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VS	Ventilation Shaft
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△	Entry Point
△	Egress Point
△	Residential Area
△	L1, L2, etc.
△	Relative Level to AHD
△	Adaptable Unit
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△	PPR Building setback zone i.e. 4.0m
△	Maximum encroachment into building setback zone

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CLIENT
 ROTHESAY AVENUE DEVELOPMENTS P/L

(OVER)

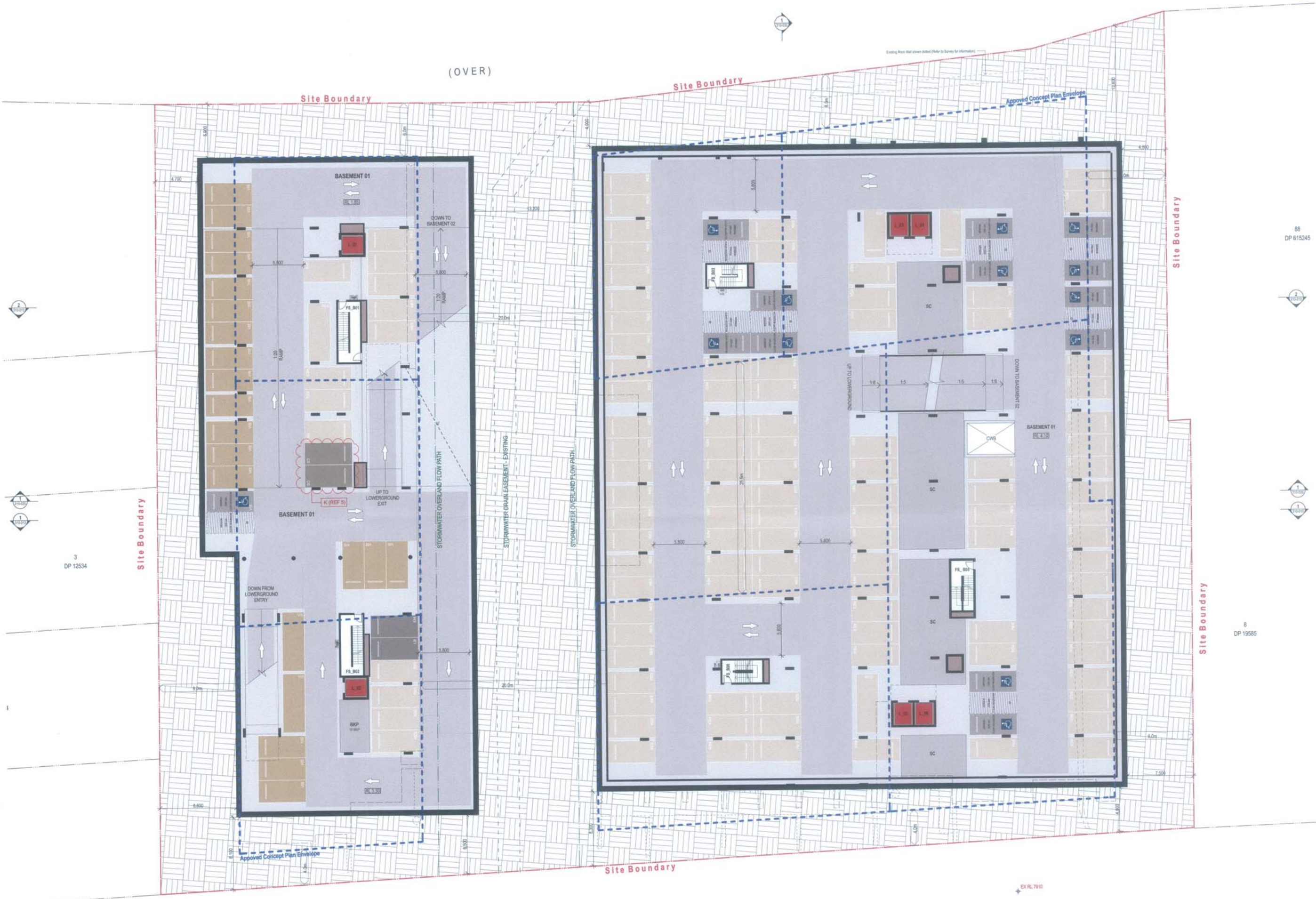
DESIGN INTENT NOTES
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Project File
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia
GA Plans
 Basement 02

Project No: 14005
 Drawn by: AC, JF, CM
 Checked by: K
 Date: 10 JUL 2015
 Scale: 1:200 @ A1, 50% @ A3
 Drawing Title: A-DA-110-070

AMENDED PLANS
 10 JUL 2015





Legend

AC	Air Conditioning
B	Bathroom
B1,2	Bedroom 1, Bedroom 2, etc.
BAL	Balustrade
BKP	Bicycle Parking
BY	Balcony
CLNR	Cleaner Store
COMS	Communications Services
CPE	Car Park Exhaust
CS	Car Share Parking Bay
CWB	Car Wash Bay
CY	Courtyard
D	Dining
DW	Dishwasher
E	Entry
ELEC	Electrical Services
EM	Emergency Vehicle
EM	Entrail
EXH	Exhaust
FEX	Fire Extingisher
FCC	Fire Control Centre
FFL	Finished Floor Level
FHR	Fire Hose Reel
FIP	Fire Indicator Panel
FMP	Fire Minitic Panel
FEP_01.02	Fire Egress Passage No.1, 2, etc.
FS_01.02	Fire Stair No.1, 2, etc.
GR	Garbage Room
GHR	Garbage Holding Room
GL	Ground Line
H	Hydraulic Services
HWU	Hot Water Unit
K	Kitchen
L_01.02	Lift No.1, 2, etc.
L	Living
LB	Loading Bay
LY	Laundry
LG	Lower Ground
LV	Loose
M	Mechanical Services
MBX	Mail Box Assembly
MDR	Metal Deck Roofing
MSB	Main Switch Board Service
MTR	Meter
NGL	Natural Ground Level
P	Partry
R	Robe
RES	Residential
RF	Refrigerator
RL	Relative Level to AHD
RWT	Rain Water Tank
S	Store
SC	Storage Cage
SCN	Screen
SM	Similar
SKL1	Skylight 1
ST_01	Stair No.1, 2, etc.
TCE	Terrace
UND	Unless Noted Otherwise
UG	Underground
US	Underpass
UT	Utility Space
V	Void
VIS	Visitor
VS	Ventilation Shaft
WC	Wash in Robe
WR	Washing Machine
WM	Washing Machine
▲	Entry Point
△	Egress Point
■	Residential Area
■	Lift (L1, L2 etc)
■	Relative Level to AHD
○	Adaptable Unit
○	PPR building envelope
○	K (REF R10)
○	Latest revision reference to item in council letter, May 09 2015
○	PPR Building setback zone i.e. 4.0m
*	Maximum encroachment into building setback zone

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 THIS PLAN AND ALL OTHER DOCUMENTS ARE SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT.

CLIENT
ROTHESAY AVENUE DEVELOPMENTS P/L

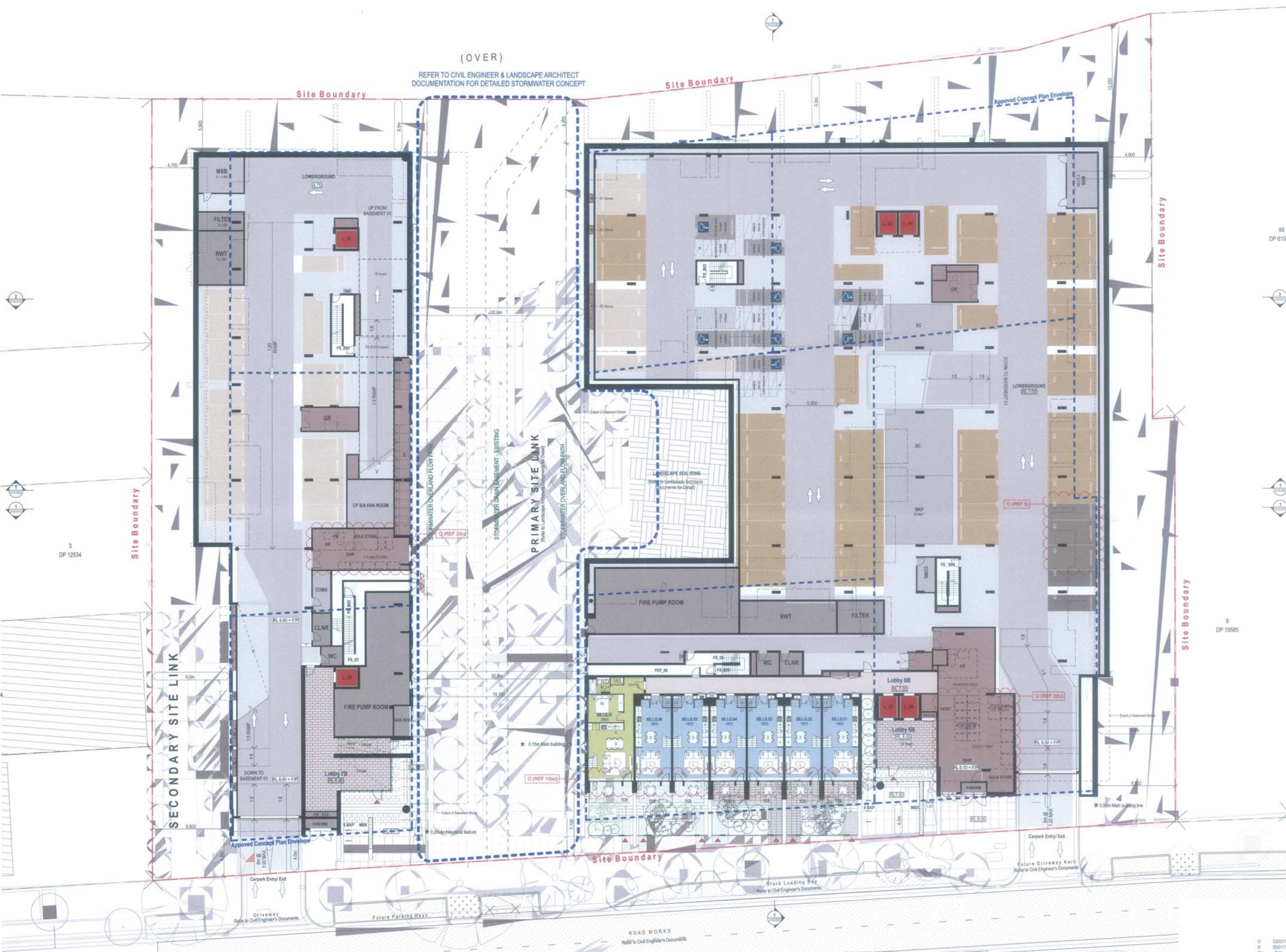
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Project Title
SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

X 03/07/15 JF
 J 05/07/15 JF
 Scale Date Approved By
 1:200 @A1, 50% @A3
 Status
 Council - Update to DA submission.
 DA-Council
 Revision Notes
 Project No. 14005
 Drawn By AC, JF, CM
 North
 Rev. K
 A-DA-110-080



AMENDED PLANS
 13 JUL 2015



Legend

- AC Air Conditioning
- B Bathroom
- B1,2 Bedroom 1, Bedroom 2, etc.
- BAL Balustrade
- BKP Bicycle Parking
- BY Balcony
- CLNR Cleaner Store
- COMS Communications Services
- CPE Car Park Exhaust
- CS Car Share Parking Bay
- CWB Car Wash Bay
- CY Courtyard
- D Dining
- DW Dishwasher
- E Entry
- ELEC Electrical Services
- EM Emergency Vehicle
- EN Ensuite
- EXH Exhaust
- FEX Fire Extingisher
- FCC Fire Control Centre
- FFL Finished Floor Level
- FHR Fire Hose Reel
- FP Fire Indicator Panel
- FMP Fire Minc Panel
- FEP_01,02 Fire Egress Passage No.1, 2, etc.
- FS_01,02 Fire Stair No.1, 2, etc.
- GR Garbage Room
- GHR Garbage Holding Room
- GL Ground Line
- H Hydraulic Services
- HWU Hot Water Unit
- K Kitchen
- L,01,02 Lift No.1, 2, etc.
- L Living
- LB Loading Bay
- LY Laundry
- LG Lower Ground
- LV Louvre
- M Mechanical Services
- MBX Mail Box Assembly
- MCR Metal Deck Roofing
- MSB Main Switch Board Service
- MTR Meter
- NGL Natural Ground Level
- P Pantry
- R Robe
- RES Residential
- RF Refrigerator
- RL Rain Level to AHD
- RWT Rain Water Tank
- S Store
- SC Storage Cage
- SCN Screen
- SM Similar
- SKL1 Skylight 1
- ST_01 Stair No.1, 2, etc.
- TCE Terrace
- UNO Unless Noted Otherwise
- UG Underground
- US Utility Space
- UT Utility Space
- V Void
- VIS Visitor
- VS Ventilation Shaft
- WC WC
- WR Walk in Robe
- WM Washing Machine

88
DP 61524

3
DP 12534

8
DP 19585

- △ Entry Point
- △ Egress Point
- △ Residential Area
- △ LR (L1, L2 etc) Relative Level to AHD
- △ RL 0.000
- Adaptable Unit
- PPR building envelope
- K (REF: RWT)
- Latest revision reference to item in sound letter, May 9th 2015
- 4.0m PPR Building setback zone (i.e. 4.0m)
- * Maximum encroachment into building setback zone

AMENDED PLANS
10 JUL 2015

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ROTHESAY AVENUE DEVELOPMENTS P/L

(OVER)
REFER TO CIVIL ENGINEER & LANDSCAPE ARCHITECT DOCUMENTATION FOR DETAILED STORMWATER CONCEPT

DESIGN INTENT NOTES
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SHEPHERDS BAY - STAGE 6 & 7
Nancarrow Ave, Meadowbank NSW 2114 Australia

Client	Update to DA submission	Project No.	14005	Drawn by	North
Rev.	DA Council	Revision Notes		AC, JF, CM	
Date	Approved by				
Scale					
1:200 @ A1, 50% @ A3					
Status		Dwg No.	A-DA-110-090	Rev	0

turner



Legend

- AC Air Conditioning
- B Bathroom
- B1.2 Bedroom 1, Bedroom 2, etc.
- BAL Balustrade
- BKP Bicycle Parking
- BY Balcony
- CLNR Cleaner Store
- COMS Communications Services
- CPE Car Park Exhaust
- CP Car Share Parking Bay
- CWB Car Wash Bay
- CY Courtyard
- D Dining
- DW Dishwasher
- E Entry
- ELEC Electrical Services
- EM Emergency Vehicle
- EN Ensuite
- EXH Exhaust
- FEX Fire Extinguisher
- FCC Fire Control Centre
- FFL Finished Floor Level
- FHR Fire Hose Reel
- FIP Fire Indicator Panel
- FMP Fire Minit Panel
- FEP_01.02 Fire Egress Passage No. 1, 2, etc.
- FS_01.02 Fire Stair No. 1, 2, etc.
- GR Garbage Room
- CHR Garbage Holding Room
- GL Ground Line
- H Hydraulic
- HWJ Hot Water Unit
- K Kitchen
- L, L1.02 LR No. 1, 2, etc.
- L Living
- LB Loading Bay
- LY Laundry
- LG Lower Ground
- LV Louvre
- M Mechanical Services
- MBX Mail Box Assembly
- MDR Metal Deck Roofing
- MSB Main Switch Board Service
- MTR Meter
- NGL Natural Ground Level
- P Partry
- R Robe
- RES Residential
- RF Refrigerator
- RL Relative Level to AHD
- RWT Rain Water Tank
- S Store
- SC Storage Cage
- SCN Screen
- SM Similar
- SKL1 Skylight 1
- ST_01 Stair No. 1, 2, etc.
- TCE Terrace
- LAND Unless Noted Otherwise
- UG Underground
- US Underside
- UT Utility Space
- V Void
- VIS Visitor
- VS Ventilation Shaft
- WC WC
- WR Walk in Robe
- WM Washing Machine
- ▲ Entry Point
- ▲ Egress Point
- Residential Area
- LR (L1, L2 etc)
- Relative Level to AHD
- Adaptable Unit
- PPR building envelope
- K (REF 10a) Latest revision reference to item in council letter, May 9th 2015
- 4.0m PPR Building setback zone i.e. 4.0m
- ★ Maximum encroachment into building setback zone

REFER TO CIVIL ENGINEER & LANDSCAPE ARCHITECT DOCUMENTATION FOR DETAILED STORMWATER CONCEPT

Site Boundary

Site Boundary

Site Bound

SECONDARY SITE LINK

Site Boundary

COMMUNAL OPEN SPACE

PRIMARY SITE LINK

Site Boundary

FUTURE ROAD WORKS
Refer to Civil Engineer's Documents

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ROTHESAY AVENUE DEVELOPMENTS P/L

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Project Title
SHEPHERDS BAY - STAGE 6 & 7
Nancarrow Ave, Meadowbank NSW 2114 Australia

Scale
1:200 @A1, 50% @A3

Sheet No.
14005

Rev.
A-DA-110-100

North
N

turner

AMENDED PLANS
18 JUL 2015



- Legend**
- AC Air Conditioning
 - B Bedroom
 - B1,2 Bedroom 1, Bedroom 2, etc
 - BAL Balustrade
 - BKP Bicycle Parking
 - BY Balcony
 - CLNR Cleaner Store
 - COMS Communications Services
 - CPE Car Park Exhaust
 - CS Car Share Parking Bay
 - CWB Car Wash Bay
 - CY Courtyard
 - D Dining
 - DW Dishwasher
 - E Entry
 - ELEC Electrical Services
 - EM Emergency Vehicle
 - EN Ensuite
 - EXH Exhaust
 - FEK Fire Extinguisher
 - FCC Fire Control Centre
 - FFL Finished Floor Level
 - FHR Fire Hose Reel
 - FIP Fire Indicator Panel
 - FMP Fire Minit Panel
 - FEP_01,02 Fire Egress Passage No. 1, 2, etc.
 - FS_01,02 Fire Stair No. 1, 2, etc.
 - GR Garbage Room
 - GHR Garbage Holding Room
 - GL Ground Line
 - H Hydraulic Services
 - HWU Hot Water Unit
 - K Kitchen
 - L_01,02 Lift No. 1, 2, etc.
 - L Living
 - LB Loading Bay
 - LY Laundry
 - LG Lower Ground
 - LV Lounge
 - M Mechanical Services
 - MBX Mail Box Assembly
 - MCR Metal Deck Roofing
 - MSB Main Switch Board Service
 - MTR Meter
 - NGL Natural Ground Level
 - P Pantry
 - R Robe
 - RES Residential
 - RF Refrigerator
 - RL Relative Level to AHD
 - RWT Rain Water Tank
 - S Store
 - SC Storage Cage
 - SCH Sconce
 - SM Similar
 - SKL1 Skylight 1
 - ST_01 Stair No. 1, 2, etc.
 - TCE Terrace
 - UNO Unless Noted Otherwise
 - UG Underground
 - US Underside
 - UT Utility Space
 - V Void
 - VIS Visitor
 - VS Ventilation Shaft
 - WC WC
 - WR Walk in Robe
 - WM Washing Machine
 - ▲ Entry Point
 - △ Egress Point
 - Residential Area
 - LR (L1, L2 etc) Relative Level to AHD
 - RL_0,000 Relative Level to AHD
 - Adaptable Unit
 - PPR building envelope
 - ☆ (REF Box) Latest revision reference to item in council letter, May 9th 2015
 - 4.0m PPR Building setback zone (i.e. 4.0m)
 - ★ Maximum encroachment into building setback zone

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 ROTHESAY AVENUE DEVELOPMENTS P/L

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Project Title
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

Drawing Title
 GA Plans
 Level 01

Scale
 1:200 @ A1, 50% @ A3

Date
 05/07/15

Author
 JF

Checked
 JF

Approved
 JF

Project No.
 14005

Drawn by
 AC, JF, CM

Checked by
 JF

Project No.
 A-DA-110-110

Revision
 1

North
 ↑

Turner

AMENDED PLANS
 10 JUL 2015

NANCARROW AVENUE
 K&G

Legend

- AC Air Conditioning
- B Bathroom
- B1.2 Bedroom 1, Bedroom 2, etc.
- BAL Balustrade
- BKP Bicycle Parking
- BY Balcony
- CLNR Cleaner Store
- COMS Communications Services
- CPE Car Park Exhaust
- CS Car Share Parking Bay
- CWB Car Wash Bay
- CY Courtyard
- D Dining
- DW Dishwasher
- E Entry
- ELEC Electrical Services
- EM Emergency Vehicle
- EN Ensuite
- EXH Exhaust
- FEK Fire Extinguisher
- FCC Fire Control Centre
- FFL Finished Floor Level
- FHR Fire Hose Reel
- FIP Fire Indicator Panel
- FMP Fire Metic Panel
- FEP_01.02 Fire Egress Passage No.1, 2, etc.
- FS_01.02 Fire Stair No.1, 2, etc.
- GR Garbage Room
- GHR Garbage Holding Room
- GL Ground Line
- H Hydraulic Services
- HWU Hot Water Unit
- K Kitchen
- L_01.02 Lift No.1, 2, etc.
- L Living
- LB Loading Bay
- LY Laundry
- LG Lower Ground
- LV Louvre
- M Mechanical Services
- MBX Mail Box Assembly
- MDR Metal Deck Roofing
- MSB Main Switch Board Service
- MTR Meter
- NGL Natural Ground Level
- P Pantry
- R Robe
- RES Residential
- RF Refrigerator
- RL Relative Level to AHD
- RWT Rain Water Tank
- S Store
- SC Storage Cage
- SCN Screen
- SM Similar
- SKL1 Skylight 1
- ST_01 Stair No.1, 2, etc.
- TCE Terrace
- UNO Unless Noted Otherwise
- UG Underground
- US Underside
- UT Utility Space
- V Void
- VIS Visitor
- VS Ventilation Shaft
- WC WC
- WR Walk in Robe
- WM Washing Machine
- ▲ Entry Point
- ▲ Egress Point
- Residential Area
- Lift (L1, L2 etc)
- Relative Level to AHD
- Adaptable Unit
- PPR building envelope
- K (REF Box)
- Latest revision reference to item in council letter, May 9th 2015
- PPR Building setback zone (i.e. 4.0m)
- Maximum encroachment into building setback zone



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 ROTHESAY AVENUE DEVELOPMENTS P/L

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Project Title
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

Rev	03/07/15	JF	Council - Update to DA submission
Rev	05/07/15	JF	DA Council
Scale	1:200 @A1, 50% @A3		
Status			
Project No.	14005	AC, JF, CM	North
Drawn by			
Check by			
Drawn by			
Check by			
Drawn by			
Check by			

Drawing Title
 GA Plans
 Level 02



AMENDED PLANS
 13 JUL 2015



- Legend**
- AC Air Conditioning
 - B Bathroom
 - B1.2 Bedroom 1, Bedroom 2, etc.
 - BAL Balustrade
 - BYP Bicycle Parking
 - BY Balcony
 - CLNR Cleaner Store
 - COMS Communications Services
 - CPE Car Park Exhaust
 - CS Car Share Parking Bay
 - CWB Car Wash Bay
 - CY Courtyard
 - D Dining
 - DW Dishwasher
 - E Entry
 - ELEC Electrical Services
 - EM Emergency Vehicle
 - EN Ensuite
 - EXH Exhaust
 - FEX Fire Extinguisher
 - FCC Fire Control Centre
 - FFL Finished Floor Level
 - FHR Fire Hose Reel
 - FIP Fire Indicator Panel
 - FMP Fire Minit Panel
 - FEP_01.02 Fire Egress Passage No. 1, 2, etc.
 - FS_01.02 Fire Stair No. 1, 2, etc.
 - GR Garbage Room
 - GHR Garbage Holding Room
 - GL Ground Line
 - H Hydraulic Services
 - HWU Hot Water Unit
 - K Kitchen
 - L, 01.02 Lift No. 1, 2, etc.
 - L Living
 - LB Loading Bay
 - LY Laundry
 - LG Lower Ground
 - LV Louvre
 - M Mechanical Services
 - MBX Mail Box Assembly
 - MDR Metal Deck Roofing
 - MSB Main Switch Board Service
 - MTR Meter
 - NGL Natural Ground Level
 - P Pantry
 - R Robe
 - RES Residential
 - RF Refrigerator
 - RL Relative Level to AHD
 - RWT Rain Water Tank
 - S Store
 - SC Storage Cage
 - SCM Screen
 - SM Similar
 - SKL1 Skylight 1
 - ST_01 Stair No. 1, 2, etc.
 - TCE Terrace
 - UNO Unless Noted Otherwise
 - UG Underground
 - US Underside
 - UT Utility Space
 - V Void
 - VIS Ventrilation Shaft
 - WC WC
 - WR Walk in Robe
 - WM Washing Machine
 - △ Entry Point
 - △ Egress Point
 - △ Residential Area
 - △ LFL (L1, L2 etc)
 - △ Relative Level to AHD
 - △ Adaptable Unit
 - △ PPR building envelope
 - △ X (REF Box) Latest revision reference to item in council letter, May 9th 2015
 - △ 4.0m PPR building setback zone (i.e. 4.0m)
 - △ Maximum encroachment into building setback zone

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CLIENT
 ROTHESAY AVENUE DEVELOPMENTS P/L

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Project Title
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

GA Plans
 Level 05

Revision
 1 05/07/15 JF DA-Council
 2 05/07/15 JF DA-Council
 3 05/07/15 JF DA-Council
 4 05/07/15 JF DA-Council
 5 05/07/15 JF DA-Council
 6 05/07/15 JF DA-Council
 7 05/07/15 JF DA-Council
 8 05/07/15 JF DA-Council
 9 05/07/15 JF DA-Council
 10 05/07/15 JF DA-Council
 11 05/07/15 JF DA-Council
 12 05/07/15 JF DA-Council
 13 05/07/15 JF DA-Council
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 46 05/07/15 JF DA-Council
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 99 05/07/15 JF DA-Council
 100 05/07/15 JF DA-Council

Scale
 1:200 @A1, 50% @A3
 Status

Project No. 14005
Drawn by AC, JF, CM
Checked by J
Scale 1:200 @A1, 50% @A3
Status

Project Title
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

AMENDED P/L
 19 JUL 2015

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 Level 1, 410 Clover Street
 Sydney NSW 2015
 Australia
 T +61 2 9888 9999
 F +61 2 9888 9999
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- Legend**
- AC Air Conditioning
 - B Bathroom
 - B1,2 Bedroom 1, Bedroom 2, etc.
 - BAL Balustrade
 - BKP Bicycle Parking
 - BY Balcony
 - CNR Cleaner Store
 - COMS Communications Services
 - CPE Car Park Exhaust
 - CS Car Share Parking Bay
 - CWB Car Wash Bay
 - CY Courtyard
 - D Dining
 - DW Dishwasher
 - E Entry
 - ELEC Electrical Services
 - EM Emergency Vehicle
 - EN Ensuite
 - EXH Exhaust
 - FEX Fire Extinguisher
 - FCC Fire Control Centre
 - FFL Finished Floor Level
 - FHR Fire Hose Reel
 - FP Fire Indicator Panel
 - FMP Fire Metic Panel
 - FEP_01,02 Fire Egress Passage No.1, 2, etc.
 - FS_01,02 Fire Stair No.1, 2, etc.
 - GR Garbage Room
 - GHR Garbage Holding Room
 - GL Ground Line
 - H Hydraulic Services
 - HWU Hot Water Unit
 - K Kitchen
 - L, 01,02 Lift No.1, 2, etc.
 - L Living
 - LB Loading Bay
 - LY Laundry
 - LG Lower Ground
 - LV Louvre
 - M Mechanical Services
 - MBX Mail Box Assembly
 - MCR Metal Deck Roofing
 - MSB Main Switch Board Service
 - MTR Meter
 - NGL Natural Ground Level
 - P Pantry
 - R Robe
 - RES Residential
 - RF Refrigerator
 - RL Relative Level to AHD
 - RWT Rain Water Tank
 - S Store
 - SC Storage Cage
 - SCN Screen
 - SM Similar
 - SKL1 Skylight 1
 - ST_01 Stair No.1, 2, etc.
 - TCE Terrace
 - UNO Unless Noted Otherwise
 - UG Underground
 - US Underside
 - UT Utility Space
 - V Void
 - VIS Visitor
 - VS Ventilation Shaft
 - WC WC
 - WR Walk in Robe
 - WM Washing Machine
 - ▲ Entry Point
 - △ Egress Point
 - Residential Area
 - L/R (L, L2 etc)
 - Relative Level to AHD
 - ♿ Adaptable Unit
 - PFR building envelope
 - K (REF 4)
 - Latest revision reference to item in council letter, May 9th 2015
 - 4.0m PFR building setback zone i.e. 4.0m
 - ★ Maximum encroachment into building setback zone



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CLIENT
 ROTHESAY AVENUE DEVELOPMENTS P/L

DESIGN INTENT NOTES
 Internal spaces shown are indicative only for information purposes and are subject to further design development and change.
 Window mullions, if shown, are indicative only.
 Louvre panels, if shown, are indicative only.
 All dimensions and levels shown are approximate.
 Any finishes nominated are indicative only and subject to change.
 Adornations shown on the facade are indicative only and are subject to further design development and change.
 Storage allocations and areas are not necessarily shown on the drawings and are subject to change.

Project Title
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

K	05/07/15	JF	Council - Update to DA submission
J	05/07/15	JF	DA-Council
Rev	Date	Approved by	Revision Notes
Scale	1:200 @A1, 50% @A3	Project No.	14005
Status		Drawn by	AC, JF, CM
		Check by	K
		Dwg No.	A-DA-110-160

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 F +61 2 9550 9505
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AMENDED PLANS
 10 JUL 2015

- Legend**
- AC Air Conditioning
 - B Bathroom
 - B1,2 Bedroom 1, Bedroom 2, etc.
 - BAL Balustrade
 - BKP Bicycle Parking
 - BY Balcony
 - CLNR Cleaner Store
 - COMS Communications Services
 - CPE Car Park Exhaust
 - CS Car Share Parking Bay
 - CWB Car Wash Bay
 - CY Courtyard
 - D Dining
 - DW Dishwasher
 - E Entry
 - ELEC Electrical Services
 - EM Emergency Vehicle
 - EN Ensuite
 - EXH Exhaust
 - FEX Fire Extinguisher
 - FCC Fire Control Centre
 - FFL Finished Floor Level
 - FHR Fire Hose Reel
 - FIP Fire Indicator Panel
 - FMP Fire Minc Panel
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 - FS_01,02 Fire Stair No. 1, 2, etc.
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 - GHR Garbage Holding Room
 - GL Ground Line
 - H Hydraulic Services
 - HWU Hot Water Unit
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 - L_01,02 Lift No. 1, 2, etc.
 - L Living
 - LB Loading Bay
 - LY Laundry
 - LG Lower Ground
 - LV Louvers
 - M Mechanical Services
 - MBX Mail Box Assembly
 - MGR Metal Deck Roofing
 - MSB Main Switch Board Service
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 - NGL Natural Ground Level
 - P Pantry
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 - RES Residential
 - RF Refrigerator
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 - SC Storage Cage
 - SCN Screen
 - SM Similar
 - SKL1 Skylight 1
 - ST_01 Stair No. 1, 2, etc.
 - TCE Terrace
 - UNO Unless Noted Otherwise
 - UG Underground
 - US Underside
 - UT Utility Space
 - V Void
 - VIS Visitor
 - VS Ventilation Shaft
 - WC WC
 - WR Walk in Robe
 - WM Washing Machine
 - ▲ Entry Point
 - ▲ Egress Point
 - Residential Area
 - LR (L1, L2 etc) Relative Level to AHD
 - RL 0.000
 - Adaptable Unit
 - PPR building envelope
 - K (REF (N4)) Label revision reference to item in council letter, May 9th 2015
 - 4.0m PPR Building setback zone i.e. 4.0m
 - ★ Maximum encroachment into building setback zone



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CLIENT
 ROTHESAY AVENUE DEVELOPMENTS P/L

DESIGN INTENT NOTES
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 Window positions, if shown, are indicative only.
 Louvre panels, if shown, are indicative only.
 All dimensions and levels shown are approximate.
 Any finishes nominated are indicative only and subject to change.
 Articulations shown on the facade are indicative only and are subject to further design development and change.
 Storage allocations and areas are not necessarily shown on the drawings and are subject to change.

Project Title
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

Revision Table

Rev.	Date	Approved by	Revision Notes
K	03/07/15	JF	Council - Update to DA submission
J	05/01/15	JF	DA-Council

Scale
 1:200 @A1, 50% @A3

Project No.
 14005

Drawn by
 AC, JF, CM

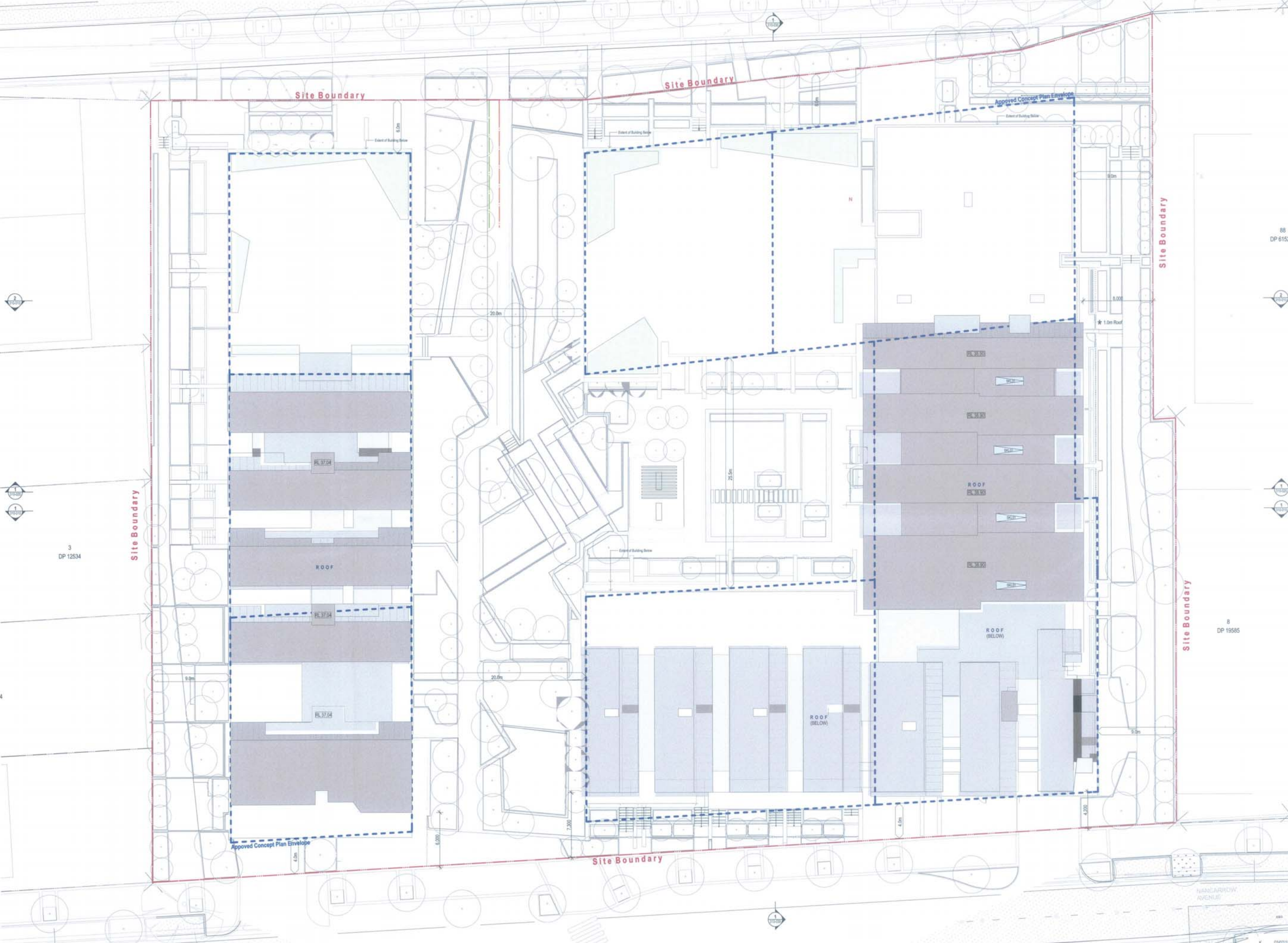
Checked by
 K

Dwg No.
 A-DA-110-180

Level 08 (Mezzanine)

turner

AMENDED PLANS
 10 JUL 2015



- Legend**
- AC Air Conditioning
 - B Bathroom
 - B1,2 Bedroom 1, Bedroom 2, etc.
 - BAL Balustrade
 - BKP Bicycle Parking
 - BY Balcony
 - CLNR Cleaner Store
 - COMS Communications Services
 - CPE Car Park Exhaust
 - CT Courtyard
 - CWB Car Wash Bay
 - D Dining
 - DW Dishwasher
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 - UIS Underside
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 - V Void
 - VIS Visitor
 - VS Ventilation Shaft
 - WC WC
 - WR Walk in Robe
 - WM Washing Machine
 - ▲ Entry Point
 - ▲ Egress Point
 - Residential Area
 - Lift (L1, L2 etc)
 - Relative Level to AHD
 - Adaptable Unit
 - PPR building envelope
 - K (REF Box)
 - Latest revision reference to item in council letter, May 5th 2015
 - 4.0m PPR building setback zone (s. 4.0m)
 - * Maximum encroachment into building setback zone

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CLIENT
 ROTHESAY AVENUE DEVELOPMENTS P/L

DESIGN INTENT NOTES
 Internal aspects shown are indicative only for information purposes and are subject to further design development and change. Window patterns, if shown, are indicative only. Louvre panels, if shown, are indicative only. All dimensions and levels shown are approximate. Any finishes nominated are indicative only and subject to change. Annotations shown on the facade are indicative only and are subject to further design development and change. Storage allocations and areas are not necessarily shown on the drawings and are subject to change.

Project Title:
 SHEPHERDS BAY - STAGE 6 & 7
 Nancarrow Ave, Meadowbank NSW 2114 Australia

Scale:
 1:200 @A1, 50%@A3

Drawing Title:
 GA Plans
 Level 09 (Roof)

Project No:	14005	Drawn by:	AC, JF, CM
Scale:	1:200 @A1, 50%@A3	Checked by:	K
Revision:	06/07/15	Project No.:	14005
Date:	06/07/15	Client:	ROTHESAY AVENUE DEVELOPMENTS P/L
Approved by:	[Signature]	Project No.:	14005
Project Title:	SHEPHERDS BAY - STAGE 6 & 7	Project No.:	14005
Project Location:	Nancarrow Ave, Meadowbank NSW 2114 Australia	Project No.:	14005
Project No.:	14005	Project No.:	14005
Scale:	1:200 @A1, 50%@A3	Project No.:	14005
Date:	06/07/15	Project No.:	14005
Approved by:	[Signature]	Project No.:	14005

AMENDED PLANS
 10 JUL 2015

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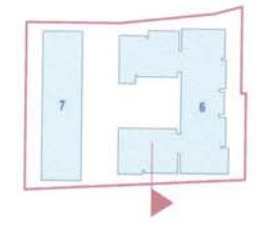


External Materials & Finishes Schedule

- BAL1** Balustrade Type 1: Semi - Frameless clear glass balustrade fixed to back of spandrel. Framing system, aluminium powder coat finish. Colour to match GC1
- BAL2** Balustrade Type 2: Semi - Frameless glass balustrade integrated into Glazing system GC2
- BAL3** Balustrade Type 3: Metal Balustrade fixed to face of slab. Colour to match Dulux "Monument"
- BWK1** Brick work Type 1: Equal to glazed brick work Colour Australique. Colour to match "Smashing Blue"
- CLD1** Cladding Type 1: Painted vertically grooved cladding system. Equal to Sycon Acorn Cladding. Paint to match Dulux "Sensate"
- CLD2** Cladding Type 2: Metal cladding system or equal. Pre-finished coating system. Colour to match Dulux "Charcoal"
- CLD3** Cladding Type 3: Metal cladding system or equal. Pre-finished coating system. Colour to match Dulux "Monstone Slate"
- CLD4** Cladding Type 4: Pre-finished cladding system. Colour to match Dulux "Natural White"
- CLD6** Cladding Type 6: Soft to match Blackbutt Timber Lining
- FIN1** Fin Type 1: Aluminium Vertical Fin or equal fixed to window suite. Colour to match CL3.
- GC1** Glass Clear Type 1: Glass clear. Framing system, aluminium powder coat finish. Framing colour to match Interpon "charcoal". Refer to BASIX assessment for performance requirements.
- GC2** Glass Tinted Type 2: Frame to match Interpon "Monstone Slate". Refer to BASIX assessment for performance requirements.
- GC3** Glass Tinted Translucent Type 3: Frame to match Interpon "Monstone Slate". Refer to BASIX assessment for performance requirements.
- GC4** Glass Tinted Opaque Type 4: Frame to match Interpon "Monstone Slate". Refer to BASIX assessment for performance requirements.
- GC5** Upper Levels) as GC1
Frame to match Interpon "Monstone Slate"
- GF1** Gate & Fence Type 1: Metal fence and gate structure. Integrated letter box and street address signage panels. Colour to match Dulux "Monument"
- LV1** Louvre Type 1: Horizontal louvre system. 150mm profile. Colour finish to match Monstone Slate
- SC1** Screen Type 1: Fixed Vertical Metal Screen or equal. Colour to match Dulux "Monument"
- SC2** Screen Type 2: Decorative Screen. Colour to match Interpon "Monstone Slate"
- SPL1** Spandrel Type 1: Straight edge Precast spandrel, depth varies. Paint finish. Colour to match Dulux vivid white.
- SPL2** Spandrel Type 1: Zig-Zag edge Precast spandrel, depth varies. Paint finish. Colour to match Dulux vivid white.
- SWF1** Stone wall finish Type 1: Equal to Natural sandstone clad wall, dry joint finish. Stonework, random bookmatch pattern.
- TL1** Tile Type 1: Decorative tile or equal.
- MDR** Upright Longline Metal Roofing. Equal to Colortrend Ultra "Walkway"
- SKL** Skylight. Refer to BASIX assessment for performance requirements.

AMENDED PLANS
13 JUL 2015

Key Plan



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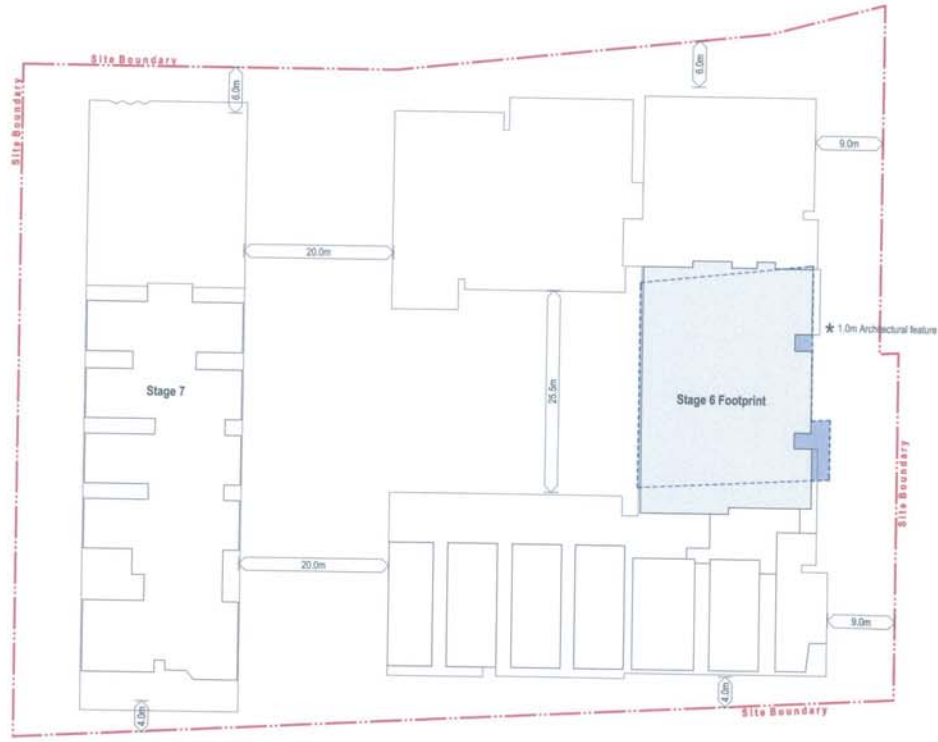
CLIENT
ROTHESAY AVENUE DEVELOPMENTS P/L

DESIGN INTENT NOTES
Internal layouts shown are indicative only for information purposes and are subject to further design development and change.
Window materials, if shown, are indicative only.
Louvre panels, if shown, are indicative only.
All dimensions and levels shown are approximate.
Any fixtures nominated are indicative only and subject to change.
Annotations shown on the facade are indicative only and are subject to further design development and change.
Storage allocations and areas are not necessarily shown on the drawings and are subject to change.

Project Title
SHEPHERDS BAY - STAGE 6 & 7
Nancarrow Ave, Meadowbank NSW 2114 Australia

Drawing Title
LARGE SCALE DETAILS
Facade Section

Rev	Date	Approved by	Revision Notes	Project No.	14005	Open by	North
1:50 @A1, 50% @A3						AC, JF, CM	
Status				Dwg No.	A-DA-450-010	Rev	A



Building Envelope Comparison

Stage 6	
PPR Building Envelope	656 m ²
Proposed Building Envelope	723 m ²
67 m ² More than PPR Building Envelope	
Totals	
PPR Building Envelope	656 m ²
Proposed Building Envelope	723 m ²
67 m ² More than PPR Building Envelope	

4 Top Level, Level 08

AMENDED PLANS
10 JUL 2015

- PPR building envelope
- Proposed building envelope
- Proposed building envelope including architectural features
- Unoccupied portion of PPR building envelope
- Extent of 'pop-up' zone defined in PPR building envelope
- PPR Building setback zone (i.e. 4.0m)
- Maximum encroachment into building setback zone

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CLIENT
ROTHESAY AVENUE DEVELOPMENTS P/L

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Window locations, if shown, are indicative only.
Landscape panels, if shown, are indicative only.
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Any fixtures nominated are indicative only and subject to change.
Architectural features shown on the facade are indicative only and are subject to further design development and change.
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Project Title
SHEPHERDS BAY - STAGE 6 & 7
Nancarrow Ave, Meadowbank NSW 2114 Australia

D	14/04/15	JF	Council - Addendum to DA Submission
Rev	Date	Approved by	Revision Notes
Scale	1:500 @A1, 50%@A3	Project No.	14005
Drawn by	AC, JF, CM	Drawn by	North
Checked by	AC, JF, CM	Checked by	North
Drawn No.	A-DA-740-111	Rev	D

Building Envelope Diagrams 2/2



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1 Courtyard North East 9am



2 Courtyard North East 10am



3 Courtyard North East 10:30am



4 Courtyard North East 11am



5 Courtyard North East 11:30am



6 Courtyard North East 12pm



7 Courtyard North East 12:30pm



8 Courtyard North East 1pm



9 Courtyard North East 1:30pm



10 Courtyard North East 2pm

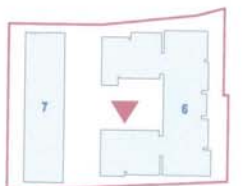


11 Courtyard North East 2:30pm



12 Courtyard North East 3pm

Key Plan



AMENDED PLANS
10 JUL 2015

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CLIENT
ROTHESAY AVENUE DEVELOPMENTS P/L

Project Title
SHEPHERDS BAY - STAGE 6 & 7
Nancarrow Ave, Meadowbank NSW 2114 Australia

A 03/07/15 JF Council - Addendum to DA submission, Ref 10 (Solar Access)
Rev Date Approved by Revision Notes
Scale NTS @A1, 50% @A3 14005 AC, JF, CM
Status Drawn by North
A-DA-840-010 Rev A

Drawing Title
Solar Analysis
Courtyard North East Self Shadowing Study

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1 Courtyard North West 9am



2 Courtyard North West 10am



3 Courtyard North West 10:30am



4 Courtyard North West 11am



5 Courtyard North West 11:30am



6 Courtyard North West 12pm



7 Courtyard North West 12:30pm



8 Courtyard North West 1pm



9 Courtyard North West 1:30pm



10 Courtyard North West 2pm



11 Courtyard North West 2:30pm



12 Courtyard North West 3pm

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CLIENT
ROTHESAY AVENUE DEVELOPMENTS P/L

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AMENDED PLANS
10 DEC 2015



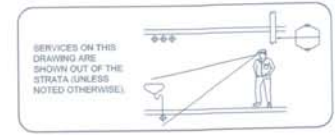
Project Title	SHEPHERDS BAY - STAGE 6 & 7	Location	Nancarrow Ave, Meadowbank NSW 2114 Australia
Scale	NTS @A1, 50%@A3	Project No.	14005
Drawn by	AC, JF, CM	Drawn by	North
Status	A-DA-840-020	Rev	A

Drawing Title
Solar Analysis
Courtyard North West Self Shadowing Study

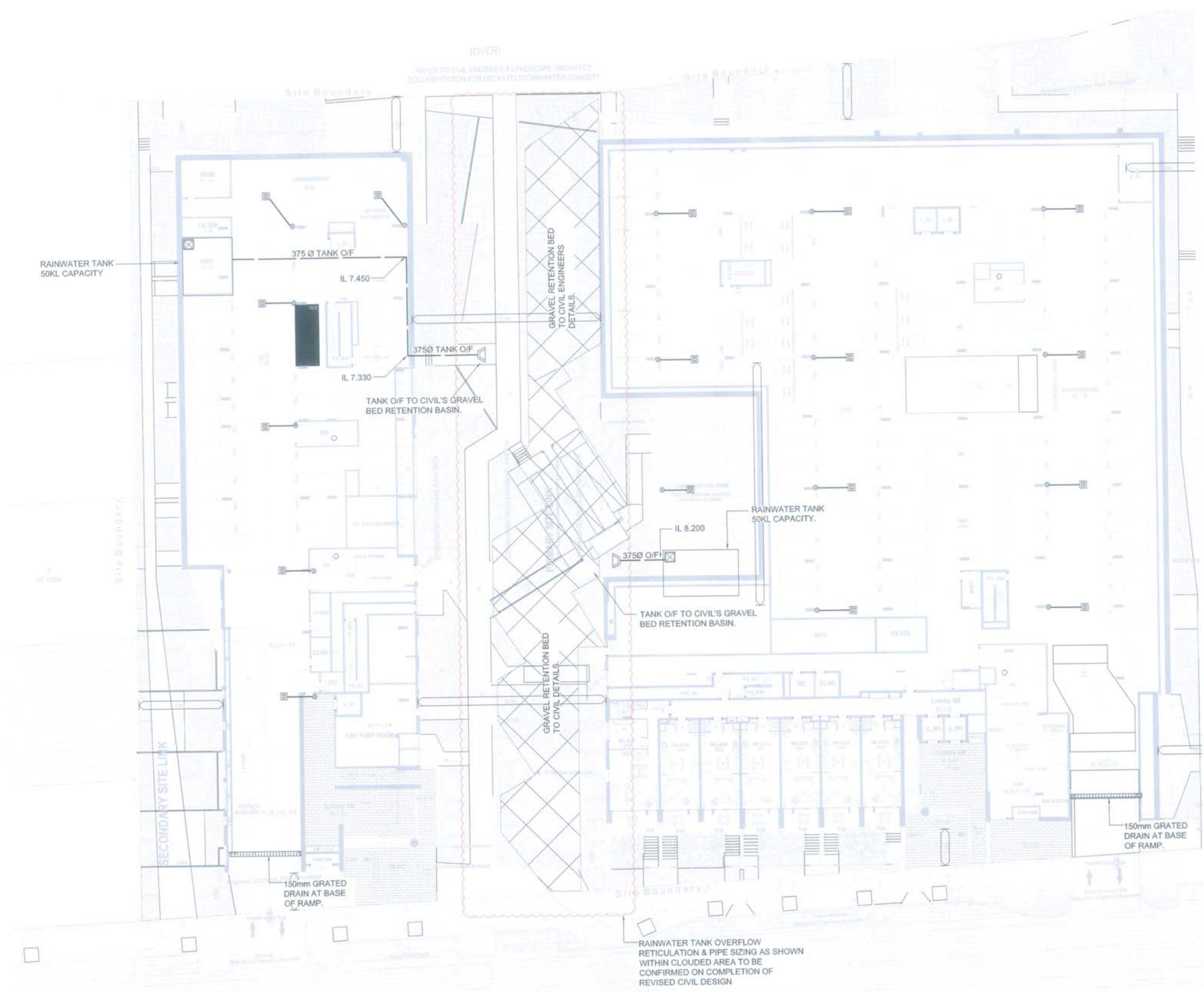
03/07/15 JF
Rev. Date Approved by
Revision Notes
Council - Addendum to DA submission, Ref 10 (Solar Access)

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 dimensions shall be taken in preference to reading.
 The contractor shall check all dimensions on
 drawings and site before commencing work.



- LEGEND**
- CATCHMENT ZONE
 - SUBSOIL DRAINAGE LINE
 - STORMWATER DRAINAGE LINE
 - ☒ STORMWATER PIT
 - ▣ 300mm² GRATED OUTLET
 - ◁ STORMWATER HEADWALL
 - DOWNPIPE
 - CLEAR OUT
 - ▨ GRAVEL BASIN RETENTION AREA



ISSUE	AMENDMENT	DATE
P2	REVISED DA ISSUE	07.07.15
P1	ISSUE FOR INFORMATION	18.12.14

CLIENT

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PROJECT

SHEPHERDS BAY
 STAGE 6 & 7

DRAWING TITLE

DA SUBMISSION
 STORMWATER CONCEPT
 LOWER GROUND FLOOR

DATE	DRAWN	CHECKED	NO. IN SET	SCALE
OCT. 2014	AT	TN		1:200 @B1
PROJECT No.	DRAWING No.	REVISION		
5727	SW-05	P2		

- GENERAL NOTES**
- THE STORMWATER DRAINAGE IS DESIGNED IN CONJUNCTION WITH CARONO WSUD MASTER PLAN DOCUMENT 902831_WSUDMASTERPLANREPORTV02 DATED 24/04/2013 & RYDE CITY COUNCILS DEVELOPMENT CONTROL PLAN 2010 SECTION 8.
 - ALL DRAWINGS TO BE READ IN CONJUNCTION WITH BGSE STORMWATER ROAD INFRASTRUCTURE DRAWINGS FOR CONNECTIONS TO BIO-RETENTION AREAS AND INFRASTRUCTURE TRUNK MAIN DESIGN.
 - ALL ARI(AVERAGE RECURRENCE INTERVALS) & RAINFALL INTENSITY DATA ARE BASED FROM INFORMATION COLLECTED FROM THE BUREAU OF METEOROLOGY.
 - AVERAGE RECURRENCE INTERVALS (MEADOWBANK)
 20YR - 185MM/HR
 50YR - 215MM/HR
 100YR - 238MM/HR
 - THE RATIONAL METHOD HAS BEEN ADOPTED FOR ALL SITE CATCHMENTS CALCULATIONS.
 - 100% OF EACH BUILDING ROOF AREA ASSUMED TO BE NON TRAFFICABLE AND DISCHARGE TO ASSOCIATED RAINWATER TANKS.
 - ALL LANDSCAPE AREA TO DISCHARGE TO NOTED BIO-RETENTION FILTRATION BASIN. BIO RETENTION FILTRATION BASIN TO BGSE DESIGN DETAILS.

AMENDED PLAN
 18 JUL 2015