THE CITY OF NEWCASTLE
Future City

ENGINEERING ASSESSMENT – Flood Management, Stormwater Management, Parking & Access

TO:	VICTOR SCHUBERT- SENIOR DEVELOPMENT OFFICER
FROM:	JAMES CROSS - DEVELOPMENT ENGINEER
DATE:	4/1/10
FILE NO:	DA 09/1205
SITE:	URBAN HOUSING 22 MILFORD ST ISLINGTON
RECOMMENDATION	APPROVAL WITH CONDITIONS

Assessment Scope
The following plans / details have been assessed
- Plans by Snell Architects- project no 565 - Dated 14/1/09

Flooding

Flood Planning Level: 2.5mAHD
1% AEP Level: 1.52mAHD for flash flooding & 2mAHD for ocean flooding
PMF level: 3.14mAHD for flash flooding & 3.2mAHD for ocean flooding
Life Hazard: L4
Property Hazard: P1 flash flooding and P3 ocean event flooding
June 07 storm approx level: approx 1.64mAHD
Proposed floor Level:2.5mAHD Adequate: yes
Flood refugee required: Yes –provided in second story
Flood storage area: Yes

Usually the garage is required to be at the 1% level, the majority of the garage is above this with just the front 6 and last 6 spots below the 2mAHD level, however they are all above the flash flooding level of 1.52mAHD.

The building will need to be structurally certified to withstand flood forces up to the level of 3.2mAHD the second story will act as the refugee, access to the second story has to be made to the 3 units on the ground level.

Stormwater

Discharge Control provided: 48.5m^3
Discharges to Street
The site will have less impervious area then what is currently existing, the proposed retention tank and basins are considered acceptable

Access and parking

Access acceptable: Yes

The site has provided a wide 6m access and has adequate width carparks and aisles

Carparks provided: 43
Required: residence 24 Vistors:6

Total 32

Motorbike required 2 spaces These can be accounted for in the extra provided carparks

As per element 4.1 the site requires a bike space for each dwelling provided in the storae for each unit and 3 visitor bike spaces

There is also full width footpaving and street trees out the front of the adjoining unit development and I have asked infrastructure if they want to continue this for this site – theremaybe additional conditions once this is received

Recommendation

The development be approved once the following information regarding parking details is submitted:

1. As per element 4.1 the site requires 3 visitor bike spaces, provide details on the location of each of these bicycle spaces.
2. Provide details showing 6 of the carspaces marked as visitor

Approval Conditions of Consent

2.7 A dwelling type vehicular crossing maximum 6 m wide being constructed across the public footway at each of the proposed driveway entrance/exits at no cost to Council and in accordance with Council's A017 Series (Concrete Vehicular Crossings) design specifications and such crossing being properly maintained.

Reason: To ensure the provision of adequate clearly defined and properly constructed means of all-weather vehicular access to the site in order to encourage the use

2.9 Any redundant existing vehicular crossings being removed at no cost to Council and the public footway and kerb being restored to match the existing infrastructure.

Reason: To clarify site access arrangements in the interest of traffic and pedestrian safety, as well as road efficiency, to maximise kerbside parking opportunity and to ensure that reinstatement work is undertaken to an appropriate standard.

2.6 The Developer designing and constructing the following works within Milford Street and The Avenue, adjacent to the site at no cost to Council and in accordance with Council's guidelines and design specification, such works to be implemented prior to issue of an occupation certificate:

1. Street Tree planting with Tree Pits: Dimensions are 1200 x 1200mm inside edge of paver banding (otherwise 2000 x 2000mm outside edge of paver banding) and Gravel mulch: Golden Rhyolite, including weed mat

2. Footpaving- full width Concrete Paving: CCS 'Honeycomb' oxide. Concrete to be brush finished.Paver banding: pavers are 400 x 400 x 40mm Stylestone Commercial in Charcoal. Honed Finish. The street paving is to connect between the existing sections of footpaving

3. Associated drainage works

Note: Full construction details regarding the required works are to be submitted to Council for approval and S138 Roads Act approval issued prior to issue of a construction certificate.

Reason: To ensure that public road facilities are upgraded to an appropriate standard having regard to the additional traffic movement likely to be generated by the proposed development.

2.14 Any necessary alterations to public utility installations being at the Developer/Demolisher's expense and to the requirements of both Council and the appropriate authorities.

Reason: To ensure that any required alterations to public utility infrastructure are undertaken to acceptable standards and without demands on public sector resources.

2.17 A temporary protective crossing being provided over the footway for vehicular traffic before building operations are commenced. This approval does not permit access to the property over any adjacent private or public land.

Reason: To ensure public safety and protection of public assets.

3.20 The proposed on-site car parking being designed and constructed in accordance with Australian Standard AS 2890.1-2004, Parking facilities, Part 1: Off-street car parking. Full details are to be included in documentation for a Construction Certificate application.

Reason: To ensure access, safety and practical use of the car park.

3.64 Landscaping and any other obstructions to visibility should be kept clear of or limited in height to **1.2** m in the **2.5** metre by 2 metre splay within the property boundary each side of the driveway entrances; full details to be included in documentation for a Construction Certificate application.

Reason: To ensure adequate sight distance to traffic on the frontage road and sight distance to pedestrians on the frontage road footway.

3.83 The floor level of all proposed units being not below RL 2.5m AHD to be indicated on plans for a Construction Certificate application. Car park floor levels are not to be below 1.5m AHD The finished floor levels are to be certified by a registered Surveyor prior to the placement of the floor material and a copy of the Surveyor's Certificate is to be forwarded to the Principal Certifying Authority.

Reason: To minimise the extent of property damage and the risk of injury in the event of future flooding of the site.

3.86 Any alteration to natural surface levels on the site being undertaken in such a manner as to ensure that no surface water is drained onto or impounded on adjoining properties.

Reason: To ensure that any such proposed works do not disrupt existing natural stormwater flows in the vicinity.

3.87 The whole of the proposed structure below known flood level (i.e. relative level 2 m AHD) being constructed in materials and finishes that are resistant to damage from floodwaters/tidal waters. Any new machinery or equipment, electrical circuitry or fitting, storage unit or similar items likely to be damaged by floodwaters/tidal waters being installed above the said height or alternatively being of materials and functional capability resistant to the effects of floodwaters/tidal waters, all in accordance with the provisions of the NSW Flood Plain Development Manual. **The dwelling is to be structurally certified to be capable of withstanding flows from the PMF flood event (RL 3.2 m AHD) as the second storey of the building will provide a flood refuge in such an event, access to the second level is to be available to all ground floor units.** Full details are to be included in documentation for a Construction Certificate application.

Reason: To minimise the extent of property damage and the risk of injury in the event of flooding and/or tidal inundation of the site.

3.97 An appropriate flood emergency response plan being prepared by independent consulting engineers, experienced in flood management and put in place by the applicant prior to occupation of this site for the intended use. Such plan to be effectively updated and maintained by the occupiers; to include an education and awareness component for the workforce and detailed evacuation procedures to interface with the Bureau of Meteorology's flood warning system and the local State Emergency Services plan (where appropriate) and to include provisions for any third parties likely to be involved.

A flood emergency response plan should describe the following components:

a) Likely flood behaviour

b) Flood warning systems

c) Education awareness program

d) Evacuation and evasion procedures

e) Evacuation routes and flood refuges

f) Flood preparedness and awareness procedures for residents and visitors

Considerations should include the full range of flood risks, the proposed use of the site, site access constraints and local area evacuation routes to high ground. As much as possible, the plan should be aimed at self-directed evacuation or evasion to minimise the draw on limited State Emergency Services resources. Full details to be included in documentation for a Construction Certificate application

Reason: To adequately manage the risk of life, property and all potential adverse flood impacts within the flood environment.

3.98 The Developer instituting appropriate erosion protection and soil stabilisation measures in association with the proposed site works. Such measures to be designed in accordance with the requirement of the Department of Infrastructure, Planning and Natural Resources.

Reason: To control soil erosion and prevent sedimentation of surrounding lands both private and public.

3.110 The water management measures as indicated on the submitted plans and Statement of Environmental Effects and/or modified under the terms of this consent being implemented and the nominated fixtures and appliances being installed and operational prior to issue of an Occupation Certificate, full details to be provided with the Construction Certificate application.

Reason: To ensure Councils requirements for water management are complied with in the interest of water conservation and principles of sustainability.

5.55 All parking bays being permanently marked out on the pavement surface.

Reason: To encourage the use of the proposed on-site car parking facilities and thereby minimise kerbside parking in the adjacent public road as a result of the proposed development.

5.56 The proposed visitor parking bays being clearly indicated by means of signs and/or pavement markings.

Reason: To encourage the use of the proposed on-site car parking facilities and thereby minimise kerbside parking in the adjacent public road as a result of the proposed development.

5.65 All vehicular movement to and from the site being in a forward direction.

Reason: To ensure that the proposed development does not give rise to vehicle reversing movements on or off the public road with consequent traffic accident potential and reduction in road efficiency.

5.190

All public footways, foot paving, kerbs, gutters and road pavement damaged during the works being restored to match existing conditions at the Developer's/Demolisher's expense.

Reason: To ensure that the required restoration is undertaken to acceptable standards and without demands on public sector resources.

5.191 Where the proposed development involves the destruction or disturbance of any existing survey monuments, those monuments affected being relocated at no cost to Council by a surveyor registered under the Surveyor's Act.

Reason: To ensure that existing permanent survey marks which may be affected by the development are appropriately reinstated.

Mod4.14 Any proposed work within the public road reserve, including works in the verge/footway area such as stormwater pipe connection, vehicular crossings or reinstatement of kerb is subject of the separate approval of Council. This approval is to be obtained prior to issue of a construction certificate.

Note: A separate approval from Council must be obtained for all works within the public road reserve pursuant to Section 138 of the Roads Act 1993.

Reason: To ensure that works within the public road are suitably authorised and constructed to appropriate standards.

A.1 No work within the public road being commenced until Council's separate written approval has been obtained.

Reason: To ensure that any work within the public road is carried out in accordance with Council's requirements and under Council supervision.

A.4. Construction of the required on-site stormwater **management** system being supervised and certified upon completion by a Consultant Engineer or Registered Surveyor with respect to its compliance with the approved design plans. The certification is to be supported by a Works-as-Executed (WAE) plan of the property drainage and **stormwater management** system which is to be submitted to Council by the Principal Certifying Authority/Applicant prior to the issue of an Occupation Certificate or occupation of the premises.

Reason: To ensure that proposed drainage infrastructure is satisfactorily constructed

Regards,

James Cross
DEVELOPMENT ENGINEER