



Ref: 300001PM MO/BM

8<sup>th</sup> August 2018

Frasers Property Australia  
Level 2, 1C Homebush Bay Drive  
RHODES NSW 2138

Attention: Scott Clohessy

Dear Scott,

**RE: IVANHOE ESTATE MASTERPLAN,  
STORMWATER AND DRAINAGE ASSESSMENT ADDENDUM**

## **1.0 BACKGROUND**

ADW Johnson was engaged by the Aspire Consortium, to undertake a Stormwater and Drainage Assessment to accompany a State Significant Development Application (SSDA) for the Ivanhoe Estate redevelopment.

The original Stormwater and Drainage Assessment (reference 300001-Stormwater and Drainage Assessment Revision E, dated 27<sup>th</sup> February 2018) was undertaken to determine the stormwater quantity and quality controls required for the overall development in order to meet the requirements of Ryde City Council.

Informing the Stormwater and Drainage Assessment were discussions with Ryde City Council, which indicated that on site detention and water quality targets would only need to be met for areas within the site that are to remain in private ownership. As such, all proposed stormwater quantity and quality controls were to be provided within private lot areas, prior to runoff entering the public drainage system. In order to meet a 6 star Greenstar Communities rating, an end of line rain garden was also provided to treat runoff generated on the public roads.

It is noted that the Stormwater and Drainage Assessment was prepared to accompany a masterplan development application and as such, the water quantity and quality controls outlined within the report are to be considered as a guide for the future development of the site only. Further details around the specific controls required are to be provided as part of individual stage development applications.

### **ADW JOHNSON PTY LIMITED**

ABN 62 129 445 398

#### **Sydney**

Level 35 One International Towers  
100 Barangaroo Avenue  
Sydney NSW 2000  
02 8046 7411

[sydney@adwjohnson.com.au](mailto:sydney@adwjohnson.com.au)

#### **Central Coast**

5 Pioneer Avenue, Tuggerah NSW 2259  
PO Box 3717, Tuggerah NSW 2259  
02 4305 4300

[coast@adwjohnson.com.au](mailto:coast@adwjohnson.com.au)

#### **Hunter**

7/335 Hillsborough Road,  
Warners Bay NSW 2282  
02 4978 5100

[hunter@adwjohnson.com.au](mailto:hunter@adwjohnson.com.au)

[www.adwjohnson.com.au](http://www.adwjohnson.com.au)

Throughout the SSDA process, changes to the proposed masterplan have been made in order to satisfy a number of different requests from various authorities. This letter has been prepared to address the relevant masterplan changes and their effects on the original Stormwater and Drainage Assessment. This letter should be read in conjunction with the original Stormwater and Drainage Assessment.

## **2.0 MASTERPLAN CHANGES**

Throughout the SSDA process, a number of changes have been made to the proposed masterplan. As the stormwater controls proposed in the original assessment were provided on a lot by lot basis, only changes to the proposed built form within the individual lots will have an impact on the proposed stormwater controls for the development. For comparison purposes, a copy of the original and updated masterplans have been attached to this letter.

Upon review of the attached amended masterplan, the following changes have been identified as having an effect on the stormwater controls proposed under the original assessment:

- Removal of building C2;
- Modification of building shapes throughout the masterplan.

The following sections provide further detail on the above changes and the associated impact they will have on the stormwater and drainage assessment.

### **2.1 Removal of Building C2**

The largest change to the masterplan was the complete removal of building C2 from the development. From a stormwater perspective, the removal of building C2 will likely mean a reduction in impervious area and therefore a reduction in the peak discharge leaving the lot containing it.

It is noted that under the original assessment any runoff generated within Lot C2, including runoff generated by the roof, was captured and conveyed to an underground tank located under the proposed playing field between Lots C2 and C3. Runoff generated from Lot C3 was also captured and conveyed to this same tank.

As the removal of building C2 will likely result in a small reduction in the peak discharge leaving Lot C2 and therefore a reduced flow to the combined tank, it is likely that the size of the combined C2/C3 tank proposed under the original Stormwater and Drainage Assessment will reduce.

As indicated in the original Stormwater and Drainage Assessment, the tank sizes proposed are to be considered approximate only and detailed assessments of each tank are to be undertaken as part of the development application phase for the relevant stage.

As the likely effect of removing C2 on the proposed stormwater system will be negligible, it is considered that the Stormwater and Drainage Assessment, submitted as part of the SSDA, is still valid.

## 2.2 Modification of Building Shapes throughout the Masterplan

Throughout the masterplan, a number of building shapes have changed from those proposed in the original Stormwater and Drainage Assessment. As the building shapes were used to determine the roof catchment areas in the original assessment, any change in building shape will have an effect on the roof catchments.

Notwithstanding the above, it is noted that the roof areas proposed in the updated masterplan have generally reduced in area and will therefore result in lower peak discharges. It is also considered likely that, throughout the life of the project, building shapes will continue to be refined and roof areas will once again change. As these changes will be assessed with the individual development applications, it is considered that the original Stormwater and Drainage Assessment is still valid, despite the changes to the masterplan.

## 3.0 CONCLUSION

This letter was provided to assess the likely impact of changes to the Ivanhoe Estate masterplan on the Stormwater and Drainage Assessment, submitted as part of the SSDA.

It has been found that the masterplan changes will have a negligible effect on the proposed stormwater infrastructure and it was noted that detailed assessments of each building and lot will be undertaken as part of the individual development application phase for the relevant stage.

As such, it is considered that the original Stormwater and Drainage Assessment is still valid despite the changes to the masterplan and therefore it does not need to be amended.

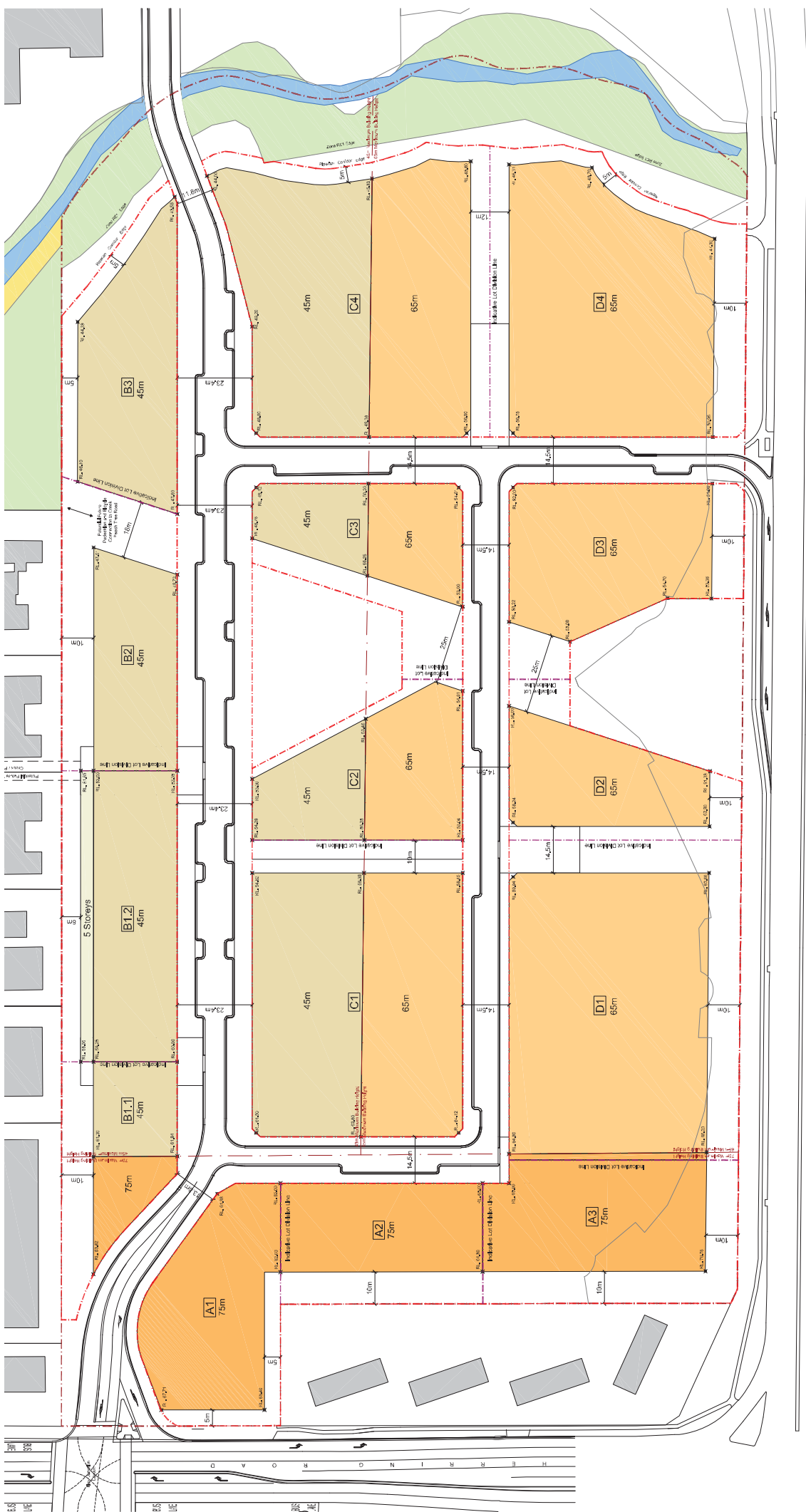
We ask that you please do not hesitate to contact the undersigned should you require any additional information, seek clarification on any item or wish to further discuss.

Yours faithfully,

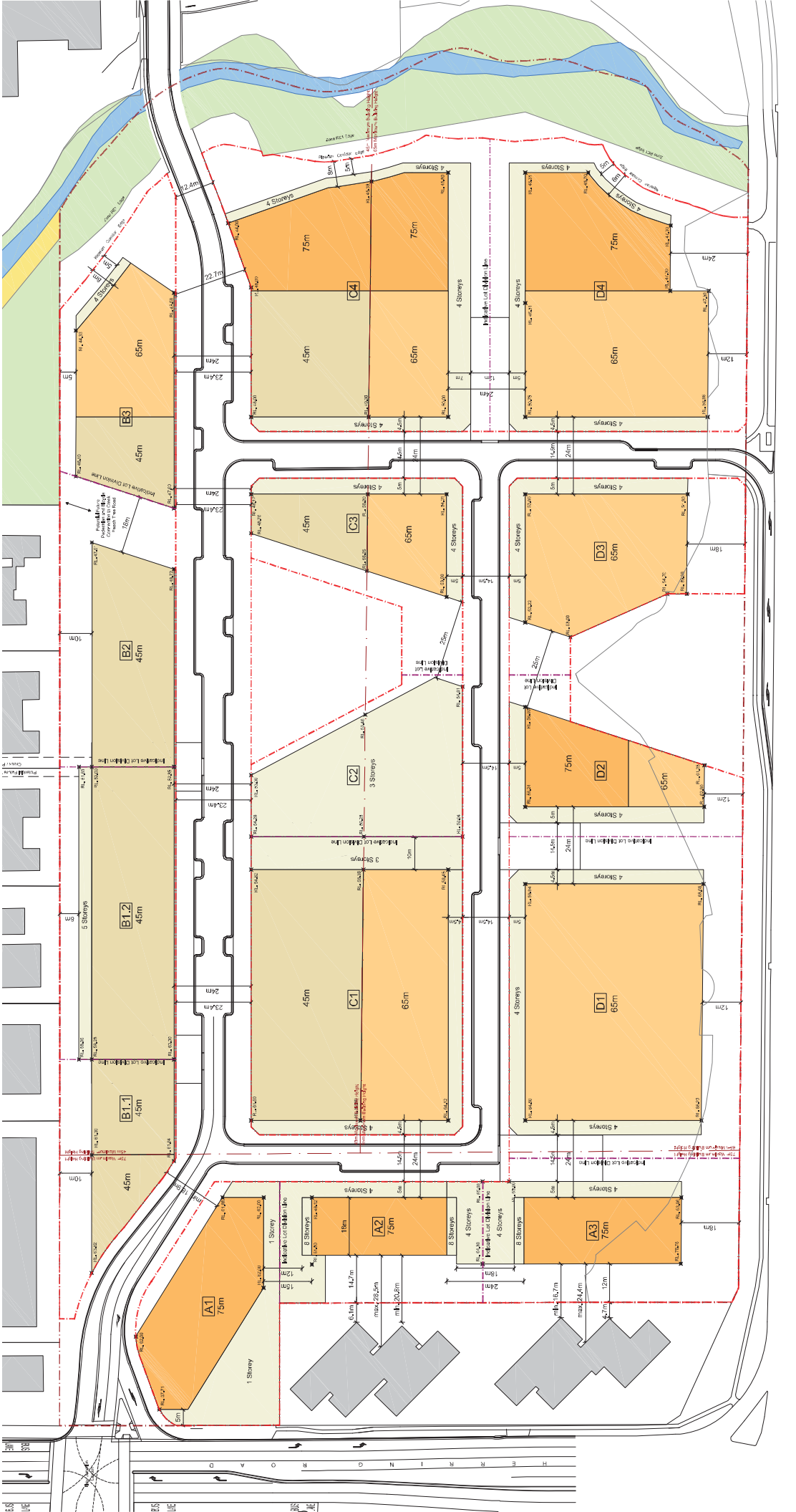
A handwritten signature in blue ink, appearing to read 'Ben Myles'.

Ben Myles  
Civil Engineer  
ADW JOHNSON

# CURRENT DESIGN ENVELOPE PLAN



# OPTION 5



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