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Our Ref: L.S20319.04.02.Stage 1 Flood Assessment for
Ivanhoe Estate.docx

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Alex McMillan
Citta Property Group Pty Limited
Level 23, 6 O'Connell Street
Sydney NSW 2000

Dear Mr McMillan

RE: LETTER OF SUPPORT IN FAVOUR OF IVANHOE ESTATE REDEVELOPMENT (STAGE 1) DEVELOPMENT APPLICATION (SSD 8903)

Introduction

This letter supports a Development Application for Stage 1 of the Ivanhoe Estate redevelopment, a State Significant Development (SSD) submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). It has been prepared for Aspire Consortium on behalf of NSW Land and Housing Corporation.

Background

BMT WBM was commissioned by Frasers Property Group to undertake a flood impact assessment to support the proposed Ivanhoe Estate Master Plan at Macquarie Park, Sydney (reference: *L.S20319.03.Flood Impact Assessment for Ivanhoe Estate Masterplan.pdf*). This assessment gave consideration to the following Master Plan developments:

- Buildings (residential flat buildings comprising private, social and affordable housing, seniors house comprising residential care facilities and self-contained dwellings, a new high school, child care centres and minor retail development);
- public open space and roads; and
- community uses.

The above considerations were built into a 2D hydraulic flood model and assessed against existing catchment conditions to establish the change in flood regime due to the Master Plan development.

Summary of Report Findings

In all modelled design events, the flood conditions outside of Shrimptons Creek were typified by shallow inundation (low depths), and low velocities (<0.2m/s). These areas are referred to as 'Local Drainage' under the NSW Government's Floodplain Development Manual (2005).

Outside of the local drainage areas the flood impact assessment found negligible differences in design flood conditions. Hence impacts on; emergency planning and evacuation, social and economic cost to the community and erosion, siltation, riparian vegetation and bank stability have not been altered due to the proposed Ivanhoe Estate Master Plan development.

Letter of Support for Stage 1 DA Assessment

The proposed Stage 1 Development Application seeks consent for the first stage of detailed works within the Ivanhoe Estate, pursuant to the Ivanhoe Estate Masterplan under Section 4.22 of the EP&A Act. The Masterplan establishes the planning and development framework against which this Stage 1 Development Application will be assessed.

As illustrated earlier, the Flood Impact Assessment for the Ivanhoe Estate Master Plan found that the areas outside of Shrimptons Creek were not at risk of flooding, but rather would be considered 'Local Drainage' only. Accordingly, it is BMT's view that the Stage 1 development does not pose any risk to flood impacts (overland or otherwise) as it is wholly contained within 'local drainage' areas, with the exception of the Shrimptons Creek Bridge. Accordingly, BMT have assessed the proposed Shrimptons Creek Bridge concept design within the September 2018 report *Shrimptons Creek Bridge Hydrologic and Hydraulic Assessment* (reference number: L.S20319.005.01).

The Stage 1 development is inclusive of:

- site preparation works, including tree removal, demolition of roads, services, and earthworks across the Ivanhoe Estate;
- the provision and augmentation of utilities and services infrastructure across the Ivanhoe Estate;
- the construction of all internal roads including public domain within the road reserves, and the bridge crossing and road connection to Lyonpark Road;
- the consolidation of existing lots and subdivision of the Ivanhoe Estate to reflect the revised road layout, open space, and provide superblocks corresponding to the Masterplan;
- the construction and use of Buildings A1 and C1 comprising residential uses (including social housing), a childcare centre, and retail / community spaces.

An image of the Masterplan, identifying Buildings A1 and C1 and illustrating the road network, is provided at Figure 2 below.



Figure 1- Ivanhoe Estate Masterplan

I trust that this letter meets the Secretary's environmental assessment requirements in relation to flooding for the Stage 1 development. Should you have any further questions regarding this assessment, please do not hesitate to contact the undersigned.

Yours Faithfully

BMT

A handwritten signature in black ink, appearing to read 'S. Froude', with a long horizontal flourish extending to the right.

Sebastian Froude
Environmental Engineer – Water and Environment Group