

31/07/2019

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CITY OF WHITEHORSE

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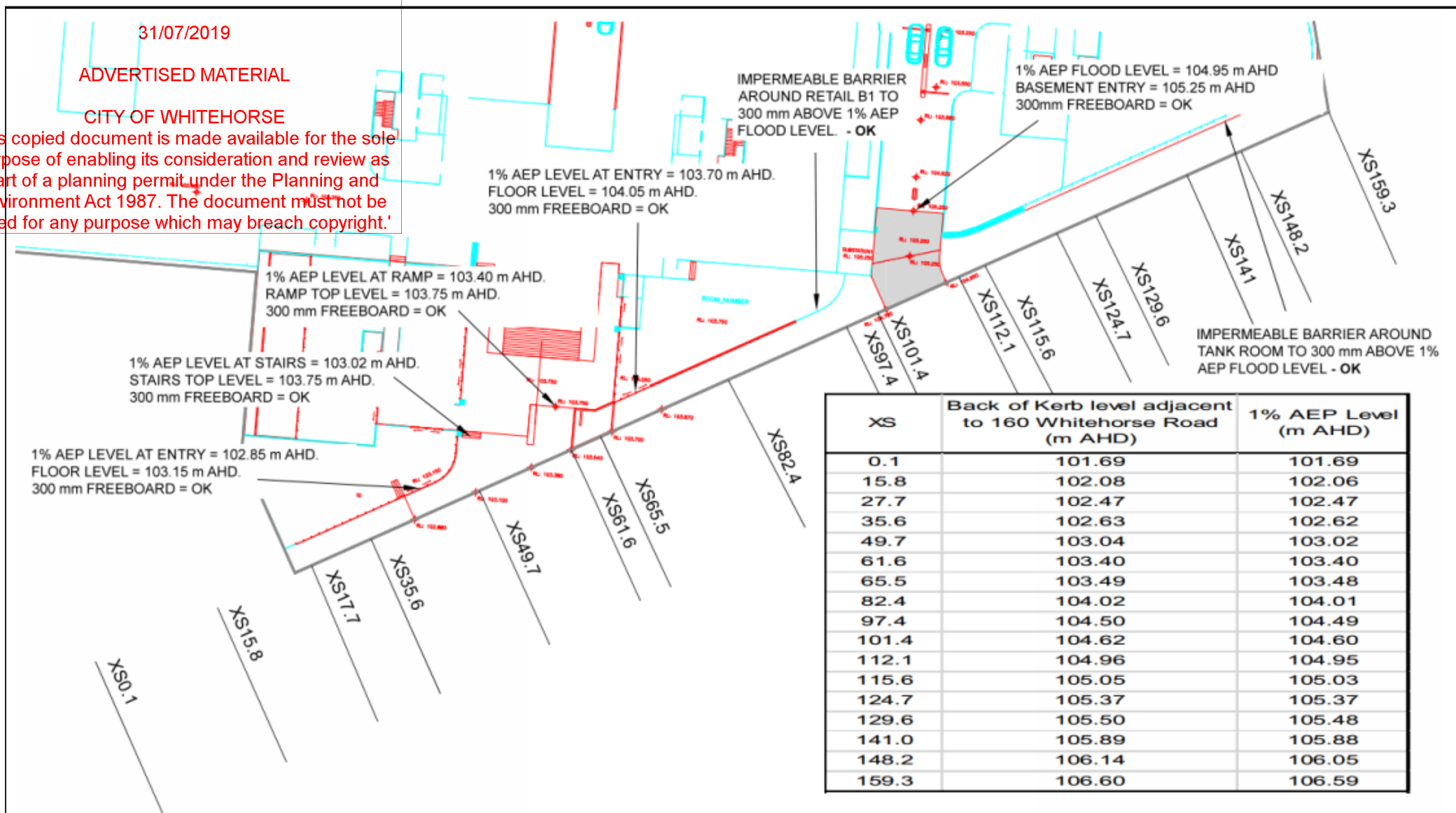


Figure 2 1% AEP Flood Levels and Flood Protection Provisions along Railway Road Frontage
Note: the above 1% AEP flood levels are considered conservative, as they assume NO flow in the underlying pipe system in Railway Road.

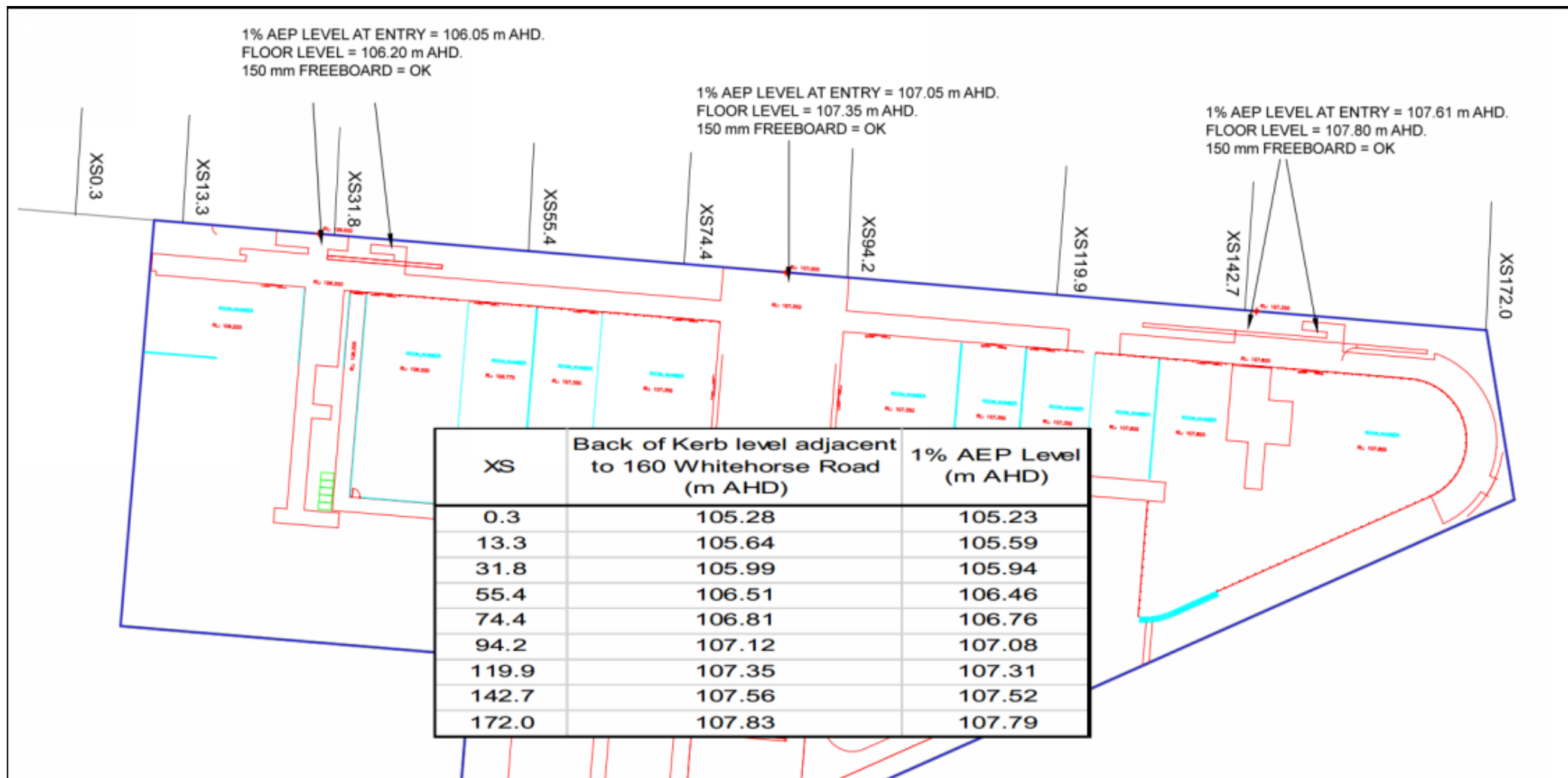


Figure 3

1% AEP Flood Levels and Flood Protection Provisions along Whitehorse Road Frontage

Note: the above 1% AEP flood levels are considered conservative, as they a Mannings n of 0.02 in the Kerb and Channel in Whitehorse Road.

From: Cheryl Rossington
Sent: Tuesday, 26 February 2019 3:04 PM
To: 'James Lee'
Subject: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Hi James

I am satisfied with the habitable floor levels that you have shown on the plans.

Please note that any mitigation methods including the planter boxes must be constructed to at least 1% AEP flood level plus 300mm.

The private building surveyor must approve the floor levels for the building after Council has given the Report and Consent Land Liable to Flooding. I would advise that you ask them to have a look at your plans before submitting them back to Councils Planning Department. They may want information on areas like for example basements. They will need to be satisfied that these areas comply with the Building Regulations.

Regards

Cheryl

From: James Lee [mailto:james.lee@brogue.com.au]
Sent: Tuesday, 26 February 2019 10:51 AM
To: Cheryl Rossington <Cheryl.Rossington@whitehorse.vic.gov.au>
Cc: Jacob Giannopoulos <jacob.giannopoulos@brogue.com.au>
Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Hi Cheryl,

Thanks for the discussion yesterday. Please refer to the attached documents from the architectural TP set that seeks to clarify the proposed development FFLs along Railway Parade.

I've marked on the elevation plans here the intent and level of the barrier along the façade on Railway Parade. These will be set at a min. 0.3m + (applicable) flood level as per our discussions (Refer to Page 3).

I hope the information here is helpful. We're looking for your written confirmation that City of Whitehorse is satisfied of the levels so that our upcoming application demonstrates compliance with item 9 on the recent RFI (see attachment) from the planners.

Thanks and kind regards.

James Lee
Associate | Civil Engineer

Brogue Consulting Engineers Pty. Ltd.
128 Rupert St, Collingwood VIC 3066
O: 03.9416.2092 | M: 04.3023.7505 | E: james.lee@brogue.com.au | W: www.brogue.com.au

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PLANNING AND ENVIRONMENT ACT 1987
WHITEHORSE PLANNING SCHEME

31/07/2019

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CITY OF WHITEHORSE

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From: Cheryl Rossington <Cheryl.Rossington@whitehorse.vic.gov.au>
Sent: Monday, February 25, 2019 9:55 AM
To: 'James Lee' <james.lee@brogue.com.au>
Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Hi James

Could you please tell me what the part of the building is that I have circled on the attached plan?

Why is this lower than the flood level plus 300mm.

Regards

Cheryl

From: James Lee [<mailto:james.lee@brogue.com.au>]
Sent: Wednesday, 20 February 2019 12:33 PM
To: Cheryl Rossington <Cheryl.Rossington@whitehorse.vic.gov.au>
Cc: Jacob Giannopoulos <jacob.giannopoulos@brogue.com.au>
Subject: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn
Importance: High

Hi Cheryl,

Thanks for sending across the information related to the flooding impact from Whitehorse Rd to our development at No. 160 Whitehorse Rd, Blackburn.

We acknowledge that a flood impact study was prepared by Stormy Water Solutions in Dec 2017 with the layout of the development similar to what we are developing now. I've attached here the VCAT and City of Whitehorse notices for reference. We further appreciate that you mentioned that the floodwaters are minimal around Whitehorse Rd and Railway Parade, with most of the impact below the current back of kerb, as per the flood impact study.

Our design proposal to mitigate the effects of flooding along Whitehorse Rd is as follows:

- Habitable areas of the proposed development (Commercial and Residential) along Whitehorse Rd frontage will be at a minimum 300mm above the identified flood levels along Whitehorse Rd and Railway Rd in accordance to the Building Regulation

We believe the above information, when incorporated into the architectural and engineering design plans will be satisfactory. Refer to the attachment: **b18275_CK101.1 - 160 Whitehorse Rd Blackburn Floor Levels Strategy.pdf**

Based on the information attached (Ref 18/295059) as forwarded by Mirjam Fabijanec, the current flood level of 107.77m AHD appears to be at the top end of Whitehorse Rd. We don't believe this is a blanket application to the whole development site as it induces a max 4.9m floor level above Railway Rd.

Therefore, can you clarify if our proposed levels as indicated in the attachment satisfies the current planning and engineering requirements?

Thanks and kind regards.

James Lee

Associate | Civil Engineer

Brogue Consulting Engineers Pty. Ltd.
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O: 03 9416 2092 | M: 04 3023 7505 | E: james.lee@brogue.com.au | W: www.brogue.com.au



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From: Cheryl Rossington <Cheryl.Rossington@whitehorse.vic.gov.au>

Sent: Tuesday, January 8, 2019 11:58 AM

To: 'James Lee' <james.lee@brogue.com.au>

Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Hi James

Could you please call me on 9262 6368, I tried to call however it went to message.

Regards

Cheryl

From: James Lee [<mailto:james.lee@brogue.com.au>]

Sent: Tuesday, 8 January 2019 11:55 AM

To: Cheryl Rossington <Cheryl.Rossington@whitehorse.vic.gov.au>

Cc: Michael Holah <michael@pacedg.com.au>; Axel Choong <axel@pacedg.com.au>; Ashley Pollard

<ashley.pollard@brogue.com.au>; Jacob Giannopoulos <jacob.giannopoulos@brogue.com.au>

Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Importance: High

Thanks Cheryl,

It appears you're suggesting that the flooding source is impacting Whitehorse Rd.

I'll be contacting you soon regarding the current development proposal. Given the size and nature of the proposal works, we'll also be willing to come to your offices and meet with your planners and engineers to walk through.

Cheers.

James Lee

Associate | Civil Engineer

Brogue Consulting Engineers Pty. Ltd.

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O: 03 9416 2092 | M: 04 3023 7505 | E: james.lee@brogue.com.au | W: www.brogue.com.au



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From: Cheryl Rossington <Cheryl.Rossington@whitehorse.vic.gov.au>

Sent: Tuesday, January 8, 2019 8:30 AM

To: 'James Lee' <james.lee@brogue.com.au>

Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Hi James

Building regulations state that in these types of areas the buildings need to be at least 300mm above the 1% AEP. This would be taken from Whitehorse Road at there would be stormwater located within the road.

I would like to have a look at any flood mitigation proposed for the site. I am assuming this would be along Whitehorse Road.

Please forward your suggestions and sketches to me.

Happy to discuss. Please see my phone number below.



Cheryl Rossington

Asset Engineer
Engineering and Environmental Services Department
Email: cheryl.rossington@whitehorse.vic.gov.au

Whitehorse City Council

379-397 Whitehorse Road Nunawading VIC 3131
Ph: (03) 9262 6368

www.whitehorse.vic.gov.au



Please consider the environment before printing this email

From: James Lee [<mailto:james.lee@brogue.com.au>]
Sent: Friday, 21 December 2018 11:22 AM
To: Cheryl Rossington <Cheryl.Rossington@whitehorse.vic.gov.au>
Cc: Jacob Giannopoulos <jacob.giannopoulos@brogue.com.au>
Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn
Importance: High

Hi Cheryl,

Thank you for the response regarding the estimated flood levels and min FFLs across 160 Whitehorse Road in Blackburn.

You have advised that the indicated flood level of 107.77 must be applied throughout the entirety of the site. As you can appreciate the situation, this parameter would suggest that the entire lot could be substantially submerged with a greatest depth of 5.4m along the south-west corner of the site (Railway Road). It further suggests that the flooding is spilling away to the north onto Whitehorse Road. This does not make any proposed development feasible on this lot unless engineered flood mitigation measures on a passive nature can be visited.

I respect that your modelling has been undertaken with due care and through the latest rainfall patterns and methodology across the zone. On behalf of our client, a significant development is planned to be proposed for this site with a mix of retail, commercial and residential use for this land, benefitting the local community. I would certainly appreciate if we can meet with you and your engineers to discuss and understand the current hydrological conditions here and seek an acceptable solution for this site.

Would you be available in early January to meet with myself to go through this matter? Please suggest a time and we can accommodate as best as we can.

Thank you.

James Lee

Associate | Civil Engineer

Brogue Consulting Engineers Pty. Ltd.
128 Rupert St, Collingwood VIC 3066

O: 03 9416 2092 | M: 04 3023 7505 | E: james.lee@brogue.com.au | W: www.brogue.com.au



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From: jacob.giannopoulos@brogue.com.au <jacob.giannopoulos@brogue.com.au>

Sent: Thursday, December 13, 2018 3:30 PM

To: 'Cheryl Rossington' <Cheryl.Rossington@whitehorse.vic.gov.au>

Cc: 'James Lee' <james.lee@brogue.com.au>

Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Hi Cheryl,

Thank you for the minimum floor level report for 160 Whitehorse Road, Blackburn attached for your reference.

We acknowledge that the minimum floor level indicated on the report is significantly higher than the current design basement-entry apex and ground floor levels, which could lead to significant design changes to mitigate this matter.

Due to the sensitive and grand nature of this issue, we are requesting further information from Council if available.

Do you have any details of how the flood was modelled or how the given values were determined?

Kind regards,

Jacob Giannopoulos

Brogue Consulting Engineers Pty. Ltd.
128 Rupert St, Collingwood VIC 3066

O: 03 9416 2092 | E: jacob.giannopoulos@brogue.com.au | W: www.brogue.com.au



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From: jacob.giannopoulos@brogue.com.au <jacob.giannopoulos@brogue.com.au>
Sent: Friday, 7 December 2018 9:08 AM
To: 'Cheryl Rossington' <Cheryl.Rossington@whitehorse.vic.gov.au>
Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Hi Cheryl,

This is all the survey data we have at the moment for this site, hopefully this can be of assistance.

Kind regards,

Jacob Giannopoulos
Undergraduate Engineer

Brogue Consulting Engineers Pty. Ltd.
128 Rupert St, Collingwood VIC 3066
O: 03 9416 2092 | E: jacob.giannopoulos@brogue.com.au | W: www.brogue.com.au

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From: Cheryl Rossington <Cheryl.Rossington@whitehorse.vic.gov.au>
Sent: Wednesday, 28 November 2018 11:57 AM
To: 'jacob.giannopoulos@brogue.com.au' <jacob.giannopoulos@brogue.com.au>
Subject: RE: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

Hi Jacob,

Can you please submit the survey that was undertaken to AHD.

I am particularly interested in the road levels and shape that surround the development (ie Whitehorse Road and Railway Road).

Regards

Cheryl

From: jacob.giannopoulos@brogue.com.au [<mailto:jacob.giannopoulos@brogue.com.au>]
Sent: Thursday, 22 November 2018 3:03 PM
To: customerservice <customer.service@whitehorse.vic.gov.au>
Subject: Minimum Floor Levels Application - 160 Whitehorse Road Blackburn

To whom it may concern,

Please find attached Minimum Floor Levels application, payment form and relevant plans for the following property:

160 Whitehorse Road, Blackburn

Kind regards,

Jacob Giannopoulos
Undergraduate Engineer

Brogue Consulting Engineers Pty. Ltd.
128 Rupert St, Collingwood VIC 3066
O: 03 9416 2092 | E: jacob.giannopoulos@brogue.com.au | W: www.brogue.com.au



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