

Executive Steering Group - 11 October 2022 - Minutes & Action Points of 09 September 2022

# Te Whatu Ora

**Health New Zealand** NOTED the Executive Steering Group recommended option will be presented to the Te Whatu Ora 0 Board for consideration before seeking approval of the Joint Ministers. **NOTED** the Executive Steering Group will recommend option 4.3, subject to the removed beds being added back in and a space for a reduced Mental Health Services of Older People IPU included in the design. A revised option 4.3, with these inclusions, is to be circulated to the Executive Steering Group with the second members for formal endorsement. NOTED the final recommendation was required by 7 October for the Capital and Infrastructure 0 Committee meeting on 13 October. Hamish Brown requested more information regarding the redundancy and resilience under option 4.3. Richard Wager provided an overview, key points to note include: Reduction in heat pumps, but number of boilers remains the same. . Reduction in logistic lifts. Water tank storage reduced from 48 hours to 24 hours. Hamish Brown noted these changes will raise the overall risk profile. 0 Neil O'Donnell noted the changes to services generated a 9(2)(b)(ii) saving Out of scc e **Financial Report** 5 The report was taken as read, key points from discussion: There has been a 12% increase in general market, non-residential, costs since last year. Concerns about the changes in exchange rates, market pricing, and inflationary wage pressures remain. The September reports will be split into Outpatient Building and Inpatient Building, with any site wide costs being included in the Inpatient Building report. Out of scope





# **1.0 EXECUTIVE SUMMARY**

This Cost Management Report prepared by Rider Levett Bucknall for Te Whatu Ora - Health New Zealand for the proposed New Dunedin Hospital Project summarises the current financial position of the project and includes an assessment of the total commitment and remaining available contingency.

Our report has been prepared on a GST exclusive basis.

New risks are reported below; for existing risks, please refer to previous reports.

New Ris	sks Description
1	Delay in recommencing Inpatients Design will incur additional fees and escalation / delay costs
2	Exchange rate – now lowest since 2009 – ongoing impacts to material supply resulting in increased costs (e.g., Viscous Dampers)

# 1.1 FINANCIAL REVIEW

The following is a summary of the Project Budget and variance from last report.

Note, the Inpatients Programme remains on hold while approvals are gained for the design reset. Upon approval to the Project Team, the budget will be realigned. Hopefully this will be forthcoming in the next period.



# <image><text>

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Discussions are being undertaken separately regarding the proposed staffing structure which is being discussed separately. At present the direction is to work within the existing budgets.

We have included an updated summary of those budget lines which we believe are currently or have the potential to become under pressure. We are awaiting confirmation of where those cost centres are overbudget, as to where the overspend is to be funded from:

	Cost Category	Budget (\$)	Approved Commitment Value*	Paid to Date	% Spent**	Forecasted Expenditure	Variance	Comment
	501.1 Disputes Adivsory Boards	700,000	225,602	225,602	32%	829,208	354,810	Note that discussions are ongoing around structure but currently forecasting overspend.
	501.2 Probity	350,000	534,394	515,344	147%	637,283	287,283 F	Budget is overspent. Additional funding required. Forecast has been reduced noting that main procurements complete; any further involvement expected to be minimal.
	501.4 Legal	1,701,739	1,702,948	1,521,811	89%	1,900,000	198,261	Further anticipated expenditure for potential future requirements beyond procurement are likely to be a ring-fenced risk allocation in Contingency.
20	503.1 Council Fees	3,371,083	2,514,449	1,327,949	42%	4,666,526	1, 295,423 F	Due to the separate consent process and additional peer reviews to date, this item has been updated to red status.

COST MANAGEMENT REPORT NO. 26 | PREPARED BY RIDER LEVETT BUCKNALL



From:	Lauren Semple
То:	<u>"Balkham, Matt"; Hamish Brown; "Mike Jeffery"; "Todd, Derek"</u>
Cc:	Simon Crack; Bridget Dickson
Subject:	RE: NDH - Outpatient consent - flooding comments : probability of events. [GREE-DMS.FID91606]
Date:	Sunday, 24 July 2022 16:37:13
Attachments:	image003.png

Looks like we can all stand down on this! The panel have issued draft conditions which make no real change to our proposed Adverse Weather Plan and no RFI has been forthcoming on the back of Commissioner Howie's review so fingers crossed we shall shortly have a consent and this matter is done and dusted.

From: Lauren Semple	
Sent: Thursday, July 21, 2022 10:52 AM	
To: 'Balkham, Matt' >; Andrew Holmes	u de ale
<pre><andrew.holmes@health.govt.nz>; Adam Feeley &gt;; Rachel Mu &gt;; ////////////////////////////////////</andrew.holmes@health.govt.nz></pre>	
<pre>&gt;; ; 'Marcus Read' </pre>	
<pre><hr/><hr/><hr/><hr/><hr/><hr/><hr/><hr <="" td=""/><td>erek</td></pre>	erek
	eren
Cc: 'Simon Crack' <simon.crack@southerndhb.govt.nz>; Bridget Dickson</simon.crack@southerndhb.govt.nz>	
<bridget.dickson@southerndhb.govt.nz></bridget.dickson@southerndhb.govt.nz>	
Subject: RE: NDH - Outpatient consent - flooding comments : probability of events. [GR	≀EE-
DMS.FID91606]	
Thanks All – if/when we are asked via RFI to address this we will make the poin did in the Stage 1 response) that these are (deliberately) conservative assessm the likelihood of actually needing to rely on such a plan is very slim (particularly this building will be attached by bridge to another building which exits at a high point). An unfortunate by-product of splitting the consents which we knew was of risk.	ents and y when er
From: Balkham, Matt	
Sent: Thursday, July 21 2022 9:26 AM	
To: Andrew Holmes < <u>Andrew.Holmes@health.govt.nz</u> >; Adam Feeley <	>;
Rachel Murdoch < >; Read' < ; 'Hamish Brown'	; 'Marcus
<pre><hr/> </pre> <pre></pre> <pre>/ Hamish Brown@southerndhb.govt.nz&gt;; 'Mike Jeffery' </pre> <pre>&gt;; Todd, Definition of the second se</pre>	erek
Cc Lauren Semple < >; 'Simon Crack'	
<pre>smon.Crack@southerndhb.govt.nz&gt;; Bridget Dickson <bridget.dickson@southerndhb< pre=""></bridget.dickson@southerndhb<></pre>	<u>.govt.nz</u> >
Subject: RE: NDH - Outpatient consent - flooding comments : probability of events.	
Kia ora Rachel,	
I'll speak to the Jacobs team and collate a response to your queries.	

Nga mihi

2019

Matt Balkham | Jacobs | Business Leader Water Resources New Zealand

M:+64 | Level 8, 1 Grey St | Wellington, 6011 | New Zealand

?

From: Andrew Holmes <<u>Andrew.Holmes@health.govt.nz</u>> Sent: 21 July 2022 08:51 To: Adam Feeley <\_\_\_\_\_>; 'Rachel Murdoch' <\_\_\_\_\_\_; 'Marcus Read' <\_\_\_\_\_\_; 'Hamish Brown' <<u>Hamish.Brown@southerndhb.govt.nz</u>>; 'Mike Jeffery' <\_\_\_\_\_>; Todd, Derek >; Balkham, Matt <\_\_\_\_> Cc: 'Lauren Semple' <\_\_\_\_\_>; 'Simon Crack' <<u>Simon.Crack@southerndhb.govt.nz</u>>; Bridget Dickson <<u>Bridget.Dickson@southerndhb.govt.nz</u>>

**Subject:** [EXTERNAL] RE: NDH - Outpatient consent - flooding comments : probability of events.

Team

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Therefore, over time, the probability changes.

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To get a profile of event chance per decade, no other wider infrastructure improvements, Jacobs would/ should create a table, that restates the probability per decade. That might allay fears.

Final comment – this is an operational plan. Nothing to do with construction, but I think that was obvious to HNZ side of matters.

Discuss as required.

Ngā mihi

# **Andrew Holmes**

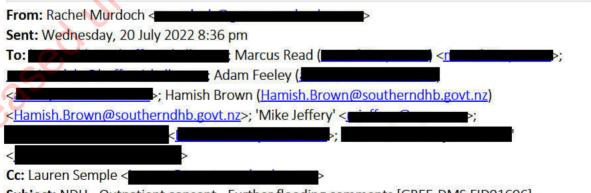
CPEng 226277 Construction Director - New Dunedin Hospital Project Infrastructure & Investment Group waea pūkoro: +64

andrew.Holmes@health.govt.nz 83 Castle Street, Dunedin 9016

<b>Te Whatu Ora – Health New Zealand</b> TeWhatuOra.govt.nz
662
From: Adam Feeley <
Sent: Thursday, 21 July 2022 8:35 am
To: 'Rachel Murdoch' <
'Marcus Read' <
< <u>Hamish.Brown@southerndhb.govt.nz</u> >; 'Mike Jeffery' <
Cc: 'Lauren Semple' <
< <u>Simon.Crack@southerndhb.govt.nz</u> >; Bridget Dickson < <u>Bridget.Dickson@southerndhb.govt.nz</u> >;
Andrew Holmes < <u>Andrew.Holmes@health.govt.nz</u> >
Subject: RE: NDH - Outpatient consent - Further flooding comments [GREE-DMS.FID91606]
Hi Rachel
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flooding response, but not sure it could be termed a "Plan." I imagine that Simon/Bridget
(cc'd) will liaise with Hamish on documenting something in more detail that they can get
reviewed by you for it's level of compliance with the EPA's expectations. An initial chat
with them as to what might be required would make sense.

2. Minimum floor levels – I don't see any problem with what you're suggesting (unless the minimum is in excess of what is currently proposed), but Marcus/WAM/Holmsie best to comment.

cheers



Subject: NDH - Outpatient consent - Further flooding comments [GREE-DMS.FID91606]

Hi all,

The potential flooding effects of the Outpatient building and our proposed management response continue to cause some consternation for the Expert Consenting Panel such

that they have requested and now received further comment from Russell Howie on those matters. That comment is attached for your information. It focuses largely on the proposal to provide and implement an adverse weather response plan. For completeness the draft condition (as proffered by us) currently reads:

1. An Adverse Weather Response Plan must be prepared prior to the Outpatient building commencing that outlines measures for managing operations during flood events to ensure staff and visitors can safely access the building, and in the case of extreme flooding events the evacuation and closure of the building, and deferral of medical services. The plan must be implemented during operation of the Outpatient building and updated as required. The plan must be made available to Dunedin City Council upon request.

While we haven't yet received a formal request for information from the Panel in response to the matters raised by Russell, it is highly likely that we will, so it would be good to get a jump start on that. I've summarised his comments/queries in the table below, along with suggested responses/actions for everyone – but please feel free to redirect if those queries would be better addressed by someone else.

Any questions, please don't hesitate to give me or Lauren a ring.

Cheers all, Rachel

Para Ref	Howie comment/query	Suggested Health response/person responsible
2, 3	Adverse weather response plan: required prior to the Outpatient building commencing. This wording is unclear – is it before construction commences or before commissioning of the building?	Due before commissioning of the bui ding – this is already reasonably clear in the conditions (I thought!) but we can probably propose a change to make it even more apparent. <b>Maurice</b> – can you work that up please?
4, 5, 6, 7, 13 and 15	<ul> <li>Measures within the adverse weather response plan</li> <li>4) The Plan is to 'outline' (?) measures for manging 'operations' (?) during flood events so that staff and visitors can access the building.</li> <li>5) Notes significant restrictions on access to the building under just modest flood events (10 year or greater). There does not seem to be any description of what those practicable measures [assume he means for securing access to building] might be, when they might need to be implemented, and indeed if there are any.</li> <li>6) Evacuation of the building is to be included in the plan for "extreme" flood events. Clearly required at 1/500 year event, but is it necessary for any other (lesser) event? Presumably that would be when flooding in the streets prevents normal vehicle</li> </ul>	<ul> <li>Hamish/Adam/Marcus – in short, it looks like we are going to need to provide more detail on the intended content of the adverse weather plan. Assume we don't yet have any details around that yet – unless something exists for the current hospital that we could adapt?</li> <li>Derek/Matt – in Damian's absence, can you please: <ul> <li>Provide examples, if you have any, of adverse weather response plans, or operational flood management plans.</li> <li>Provide some recommendations on what practicable measures could be adopted for ensuring access to the Outpatient building in all of the modelled flood events.</li> <li>Provide advice on the point at which you consider evacuation of</li> </ul> </li> </ul>

	access. 7) The Plan could require that certain specified actions are to be taken when the flood water in the streets around the building reach stated milestone levels.	the building should occur, and in particular whether you think that should be when there is flooding in the streets preventing normal vehicle access.	
	15) The Plan will have effect whenever flooding in the streets occurs. As already mentioned, a more prescriptive specification of what the plan must include will improve confidence that practicable and effective steps can be taken to ensure the functioning of the building.	<ul> <li>Advise whether you agree that the Plan could require certain specified actions when flood waters reach a stated milestone level, and if so, what those milestones could be.</li> <li>Once we have that information, we can work up a response to these questions, likely with an amended draft condition which provides a bit more detail on what the Plan will address.</li> </ul>	0
13	There is no specific condition setting the requirement for minimum floor levels.	We have a proposed condition requiring construction of the building "in general accordance" with the plans.	
		However as a "belts and braces" approach, assume there is no issue with including this as a separate condition? Adam/Marcus to confirm.	

### Ngā mihi | Kind regards

Rachel Murdoch | Senior Associate

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image001

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From:	Simon Crack
То:	Adam Feeley; "Lauren Semple"; "Rachel Murdoch"; Bridget Dickson
Subject:	RE: New Dunedin Hospital: Invitation to comment on draft conditions [GREE-DMS.FID91606]
Date:	Monday, 25 July 2022 09:23:21
Attachments:	image003.png

Thanks, Adam. And yes, we'll cancel our catch-up today and noted re: the need for an OB adverse weather response plan. We'll weave this into – and pick it up via – our wider OB çt 198 transition planning, which begin in earnest next year.

Cheers,

Simon

# Simon Crack Acting Deputy Programme Director, New Dunedin Hospital (NDH) Southern waea pūkoro: +64 | imēra: simon.crack@southerndhb.govt.nz 83 Castle Street, Dunedin 9016 | Private Bag 1921, Dunedin 9054

Te Whatu Ora - Health New Zealand TeWhatuOra.govt.nz From: Adam Feeley < Sent: Monday, 25 July 2022 09:19 To: 'Lauren Semple' < >; 'Rachel Murdoch' >; Simon Crack <Simon.Crack@southerndhb.govt.nz>; Bridget Dickson <Bridget.Dickson@southerndhb.govt.nz> Subject: RE: New Dunedin Hospital: Invitation to comment on draft conditions [GREE-DMS.FID91606] Simon/Bridget 103.82 as a minimum floor level is now a condition (which we can live with) and an adverse weather response plan for flooding has to done prior to commencing OB operation. So I think we're fine and can do away with a meeting today on more planning details for the latter.

Cheers

Adam

# Document 11

	From: Lauren Semple <
	Sent: Friday, 22 July 2022 1:55 pm
	To: William Hulme-Moir
	<>; Adam Feeley <>; 'Marcus Read'
	Cc: Rachel Murdoch >
	Subject: FW: New Dunedin Hospital: Invitation to comment on draft conditions [GREE-
	DMS.FID91606]
	Importance: High
	Hot off the press – we will do a first pass to identify the differences and then involve the experts as needed (within the short timeframe we have).
	From: DunedinHospital Fasttrack < <u>DunedinHospital.Fasttrack@epa.govt.nz</u>
	Sent: Friday, July 22, 2022 12:32 PM
	To: Lauren Semple < >; Rachel Murdoch
	>
	Subject: New Dunedin Hospital: Invitation to comment on draft conditions
	Dear All
	On 21 July 2022 the Expert Consenting Panel issued Minute 6.
	In accordance with the COVID-19 Recovery (Fast-track Consenting) Act 2020 the Panel must provide and invite written comments on its draft conditions from the applicant and every person or group who provided comments on the application.
	The panel have provided a Word and pdf version of the proposed draft conditions of consent.
	The Minute and the draft conditions are available on the EPA website here: <u>https://www.epa.govt.nz/fast-track-consenting/referred-projects/new-</u> <u>dunedin-hospital whakatputpu/the-draft-conditions/</u>
	Any comments you may have on the draft conditions are to be sent to the EPA by email at <u>dunedinhospital.fasttrack@epa.govt.nz</u> and must be received by 5pm 1 August 2022.
10	Regards
80.	Gen
	On behalf of the Fast-track Consenting Applications team
	?

From:	Hamish Brown
То:	Bridget Dickson
Cc:	Simon Crack
Subject:	RE: New Dunedin Hospital: Invitation to comment on draft conditions [GREE-DMS.FID91606]
Date:	Monday, 25 July 2022 11:29:28
Attachments:	image005.png
	image006.png

Happy with this

DMS.FID91606]

From: Bridget Dickson < Bridget.Dickson@southerndhb.govt.nz> Sent: Monday, 25 July 2022 09:26 To: Hamish Brown <Hamish.Brown@southerndhb.govt.nz> Cc: Simon Crack <Simon.Crack@southerndhb.govt.nz> Subject: FW: New Dunedin Hospital: Invitation to comment on draft conditions [GREE

FYI

Ngā mihi nui, Bridget Bridget Dickson (she/her) Programme Director, New Dunedin Hospital (NDH) Southern waea pūkoro: +64 meter | īmēra: bridget.dickson@southerndhb.govt.nz NDH PMO Office, 83 Castle Street, Dunedin 9016 | Private Bag 1921, Du edin 9054

Te Whatu Ora - Health New Zealand TeWhatuOra.govt.nz

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Sent: Monday, 25 July 2022 09:19 To: 'Lauren Semple' <

>; 'Rachel Murdoch'

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Bridget Dickson <<u>Bridget.Dickson@southerndhb.govt.nz</u>>

?

Subject: RE: New Dunedin Hospital: Invitation to comment on draft conditions [GREE-DMS.FID91606]

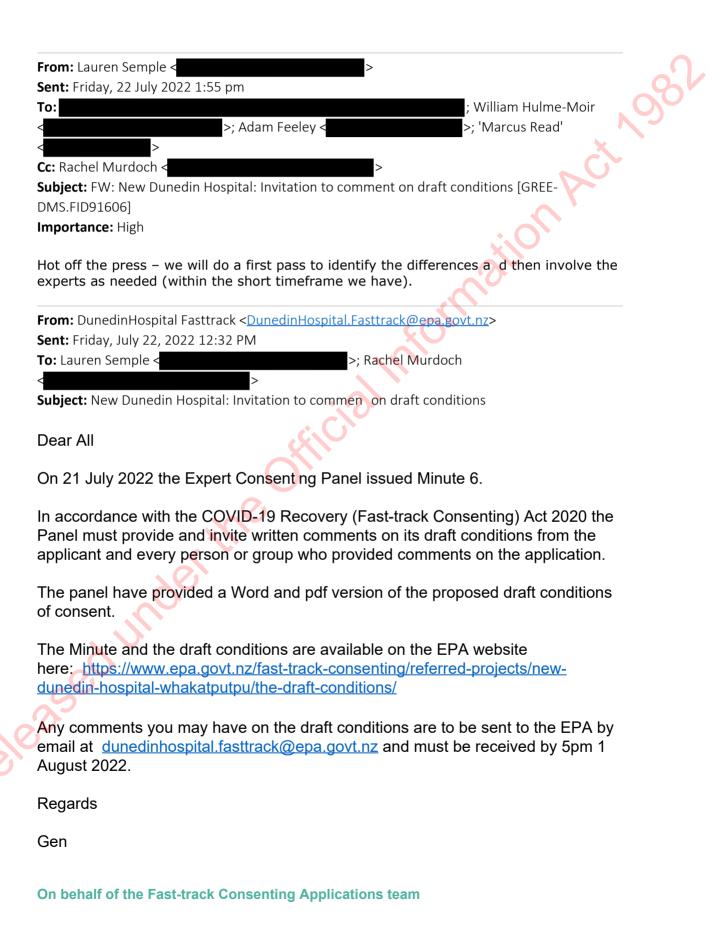
Simon/Bridget

103.82 as a minimum floor level is now a condition (which we can live with) and an adverse weather response plan for flooding has to done prior to commencing OB operation.

So I think we're fine and can do away with a meeting today on more planning details for the latter.

Cheers

Adam





# Tua Tusa

From:	Andrew Holmes
Sent:	Thursday, 21 July 2022 10:56 am
То:	Adam Feeley; 'Rachel Murdoch'; 'Marcus Read'
Cc:	Onno Le Roy
Subject:	RE: NDH - Outpatient consent - flooding comments : probability of events.

- 1. It really is a design question, but
- 2. We have played around with the floor levels
  - a. Any higher it will be ridiculous
  - b. Lower with a subfloor will be more expensive

So where it is "about right"

3. There is a reset scheme to delate the rattle space tub , but traditional foundations built roughly on slab as at todays date would be quite cost efficient, so we still would not wish to go down - and as said above, any higher would be ridiculous.

So, in summary 103.820 design FFL seems to commercially suit us and aligns to the flood report risk on file, so that's "an easy to agree to report", in my opinion.

### AH

From: Adam Feeley < aS 9(2)Sent: Thursday, 21 July 2022 9:00 am To: Andrew Holmes < Andrew. Holmes@health.govt.nz>; 'Rachel Murdoch' < 8 9(2) 'Marcus Read' < \$ 9(2)(a) 5 Subject: RE: NDH - Outpatient consent - flooding comments : probability of events.

### Holmsie

The specific question for you/Marcus is whether there would be any issue with having an express condition in our consent to build to a minimum floor level? On the basis it would be the levels proposed in the flooding reports, I assume there isn't a problem with that?

### cheers

From: Andrew Holmes < <u>Andrew.Holmes@health.g</u>	<u>govt.nz</u> >	
Sent: Thursday, 21 July 2022 8:51 am		
	l Murdoch <mark>S 9(2)(a)</mark>	>;
s 9(2)(a) "'(Marcus Read's	9(2)(a)	'Hamish
Brown' < <u>Hamish.Brown@southerndhb.govt.nz</u> >; 'N	Mike Jeffery' <mark>⊲s 9(2)(a)</mark>	
0(2)(a)s 9(2)(a)		
Cc: 'Lauren Semple' <mark>S 9(2)(a)</mark>	; 'Simon Crack' < <u>Simon.Crack@south</u>	<u>erndhb.govt.nz</u> >; Bridget

# Team

Dickson < S 9(2)(a)

Subject: RE: NDH - Outpatient consent - flooding comments : probability of events.

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Discuss as required.

Ngā mihi

Andrew Holmes CPEng 226277 Construction Director - New Dunedin Hospital Project Infrastructure & Investment Group

waea pūkoro: +<mark>S 9(2)(a)</mark> | īmēra:

andrew.Holmes@health.govt.nz 83 Castle Street, Dunedin 9016

Te Whatu Ora Health New Zealand

Te Whatu Ora – Health New Zealand <u>TeWhatuOra.govt.nz</u>

From: Adam Feeley <<u>adam@175east.net.nz</u>> Sent: Thursday, 21 July 2022 8:35 am To: 'Rachel Murdo<mark>S 9(2)(a) S 9(2)(a) ;</mark> 'Marcus Read' <<u>S 9(2)(a) ;</u> maurice.dale@boffamiskell.co.nz; 'Hamish Brown' <<u>Hamish.Brown@southerndhb.govt.nz</u>>; 'Mike Jeffery' <<u>S 9(2)(a)</u> Cc: 'Lauren Semple' <<u>S 9(2)(a)</u> Cc: 'Lauren Semple' <<u>S 9(2)(a)</u> Dickson <<u>Bridget.Dickson@southerndhb.govt.nz</u>>; Andrew Holmes <<u>Andrew.Holmes@health.govt.nz</u>>; Bridget Dickson <<u>Bridget.Dickson@southerndhb.govt.nz</u>>; Andrew Holmes (<u>Andrew.Holmes@health.govt.nz</u>>; Subject: RE\_NDH - Outpatient consent - Further flooding comments [GREE-DMS.FID91606]

Subject. Revision - Outpatient consent - Further nooding comments [GREE-DMS.

Hi Rachel

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	<ol> <li>Notes significant restrictions on access to the building under just modest flood events (10 year or greater). There does not seem to be any description of what</li> </ol>	<b>Derek/Matt –</b> in Damian's absence, can you please:

<ul> <li>those practicable measures [assume he means for securing access to building] might be, when they might need to be implemented, and indeed if there are any.</li> <li>6) Evacuation of the building is to be included in the plan for "extreme" flood events. Clearly required at 1/500 year event, but is it necessary for any other (lesser) event? Presumably that would be when flooding in the streets prevents normal vehicle access.</li> <li>7) The Plan could require that certain specified actions are to be taken when the flood water in the streets around the building reach stated milestone levels.</li> <li>15) The Plan will have effect whenever flooding in the streets occurs. As already mentioned, a more prescriptive specification of what the plan must include will improve confidence that practicable and effective steps can be taken to ensure the functioning of the building.</li> </ul>	<ul> <li>Provide examples, if you Phave any? of adverse weather response plans, or operational flood management plans.</li> <li>Provide some recommendations on what practicable measures could be adopted for ensuring access to the Outpatient building in all of the modelled flood events.</li> <li>Provide advice on the point at which you consider evacuation of the building should occur, and in particular whether you think that should be when there is flooding in the streets preventing normal vehicle access.</li> <li>Advise whether you agree that the Plan could require certain specified actions when flood waters reach a stated milestone level, and if so, what those milestones could be.</li> <li>Once we have that information, we can work up a response to these questions, likely with an amended draft condition which provides a bit more detail on what the Plan will address.</li> </ul>
13 There is no specific condition setting the requirement for minimum floor levels.	We have a proposed condition requiring construction of the building "in general accordance" with the plans. However as a "belts and braces" approach, assume there is no issue with including this as a separate condition? <b>Adam/Marcus</b> to confirm.

Ngā mihi | Kind regards

Rachel Murdoch | Senior Associate



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Release

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# Tua Tusa

From: Sent: To: Subject: Adam Feeley <<mark>S 9(2)(a)</mark> Monday, 25 July 2022 9:45 am Andrew Holmes; Onno Le Roy; 'Telford Consultants'; Helen Telford; Tony Lloyd EPA - Review of consent conditions

Just an FYI, but the draft consent conditions from EPA came through Friday afternoon for comment. Technically, it doesn't guarantee they'll grant a consent, but it would take something extraordinary for this not to happen.

They've required 103.82 as the minimum building level after the issues around flooding levels were debated – but we can accept that. Otherwise nothing adverse on flooding or, it appears, anything else.

Sticial

Comments will go back to them this week.

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cheers

# Tua Tusa

From:	Bill Gregory < <mark>S 9(2)(a)</mark>
Sent:	Monday, 15 August 2022 9:53 am
То:	Neil ODonnell; Alan Jones; Andrew Holmes
Cc:	S 9(2)(a) Kris Thomas
Subject:	FW: Base isolated flood level sorted generator?
Attachments:	20220812105953450.pdf

### Gentlemen

FYI on Generator enclosure

 General approach seems to be solidifying- package units look to be out-no confidence regarding acoustic performance.

>

- Location Castle/Bow vs Bow ANZAC still seems to be a 'debate', acoustic requirements higher on the latter location, will drive more detailed and heavier construction, but placing the building on the Castle/Bow is probably not be the best use of the site.
- Holmes waiting for TT advice to confirm raft depth.
- Beca producing further layout detail to confirm size of installation and requirements for parts.

Any further comments?

Bill

From: Bill Gregory		
Sent: Friday, 12 August 2022 11:44 am		
To: Richard Wager < <mark>\$ 9(2)(a)</mark>	Andrew Holmes <andrew.holmes@health.govt.nz></andrew.holmes@health.govt.nz>	>
Cc: Trevor Boustead <mark>S 9(2)(a)</mark>	>; Jeff Matthews < <mark>s 9(2)(a)</mark>	
Darryl Haines <mark>S 9(2)(a)</mark>	>; Tracy Hilliker <mark>S 9(2)(a)</mark> >; Ocki	e Vlok
s 9(2)(a) >; 5397839 - New Dune	edin Hospital <mark>S 9(2)(a)</mark>	; Kris Thomas
s 9(2)(a)		

Subject: RE: Base isolated flood level sorted generator?

Sorry Richard

A light hearted suggestion only.

Enclosed a more considered option, hopefully cutting through some of the optioning we are being faced with. The basis of this is summarized in the following way:

- The site conditions mean a raft is the cost effective mechanism to support the superstructure, but it was
  thought that the generator would have to be mounted above the flood line. This was leading to complicated
  and substantial second floors.
- Making a boat using the raft and precast walls to a line above the flood plane means the generator can sit on the floor more or less at ground level or at least on a plinth above an internal flood line- this internal space would have pumping to clear water ingress from wall joint leakage only.

Acoustic separation of the generator noise from the surroundings and protected areas in the building requires significant wall construction- precast at lower levels- perhaps recycled from the Cadbury building street frontages, and Korok above and across the roof, with Colorcoated aluminum cladding over on the exterior.

- Orientation of intake and outflows from the site and towards Bow lane.
- Tracy would like us to put the building on Castle and Bow Lane corner, but I still feel we should try to protect that location for future development. (Tracy may of course tell us that the building has to go there).
- Tracy has strongly suggested that the package unit provision of generators is not proven at this size and we would be taking a significant risk in choosing to provide them this way.

A

- It seems like Kris boat solution provides some advantages we should all have a look at.
- Do the transformers need to be inside the boat? Or under shelter?

Bill

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Sent: Friday, 12 August 2022 9:57 am
To: Bill Gregory <b>S</b> 9(2)(a) ; Andrew Holmes < <u>andrew.holmes@health.govt.nz</u> >
Cc: Trevor Boustead $(S g(2)(a))$
Ockie Vlok $\langle \mathbf{S}   9(2)(\mathbf{a}) \rangle$ ; 5397839 - New Dunedin Hospital $\langle \mathbf{S}   9(2)(\mathbf{a}) \rangle$
Subject: RE: Base isolated flood level sorted generator? x6
Thanks for your help Bill
Before this one really gets legs (or wheels?)
Our comment is along the lines of this comparing apples with lemons - 😊
Very nice for a MOBILE EMERGENCY application.
Prime rating of this unit is 1440kW – we are working with 2250kW electrical output as basis of design – so looking at
these would add another 2 generator sets for a total of 6 units.
Main issue is acoustic insulation and attenuation on these units is minimal and is very unlikely to ever meet
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Don't want to sound ungrateful though Bill 😉
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Mob. s 9(2)(a)
Sensitivity: General
From: Bill Gregory <mark>S 9(2)(a)</mark>
Sent: Thursday, 11 August 2022 4:47 pm
To: Andrew Holmes < <u>andrew.holmes@health.govt.nz</u> >
Cc: Trevor Boustead < \$ 9(2)(a) ; Jeff
Matthews <s 9(2)(a)<="" td=""></s>
Subject: Base isolated flood level sorted generator? x6
2000KVA GENERATOR   GRS Website (generatorrentals.co.nz)
Base isolated?

Already raised? - may need fatter tyres and a carport...

Regards

Bill Gregory B Arch (Hons), ANZIA, Reg Arch



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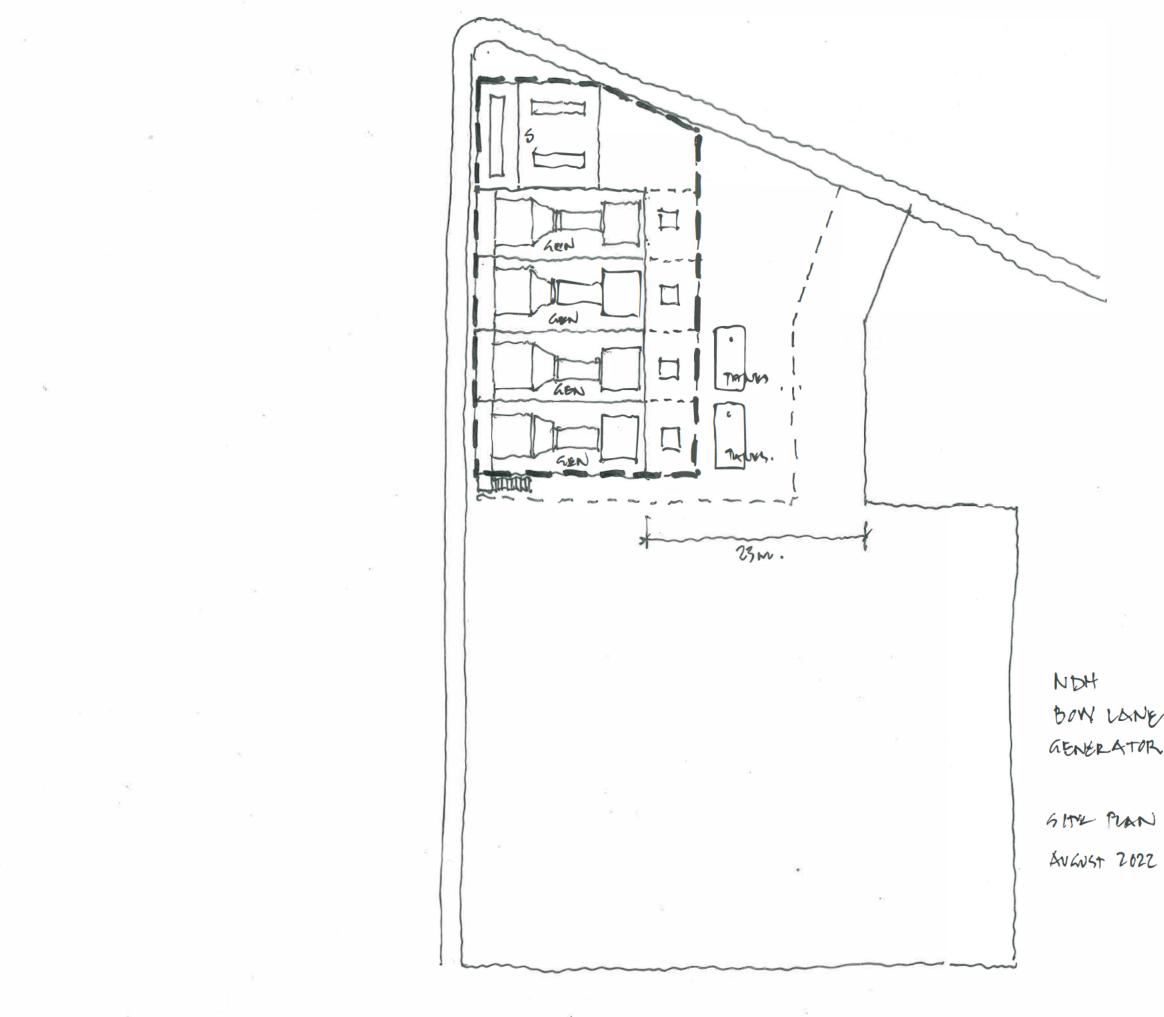
We invite you to join us.

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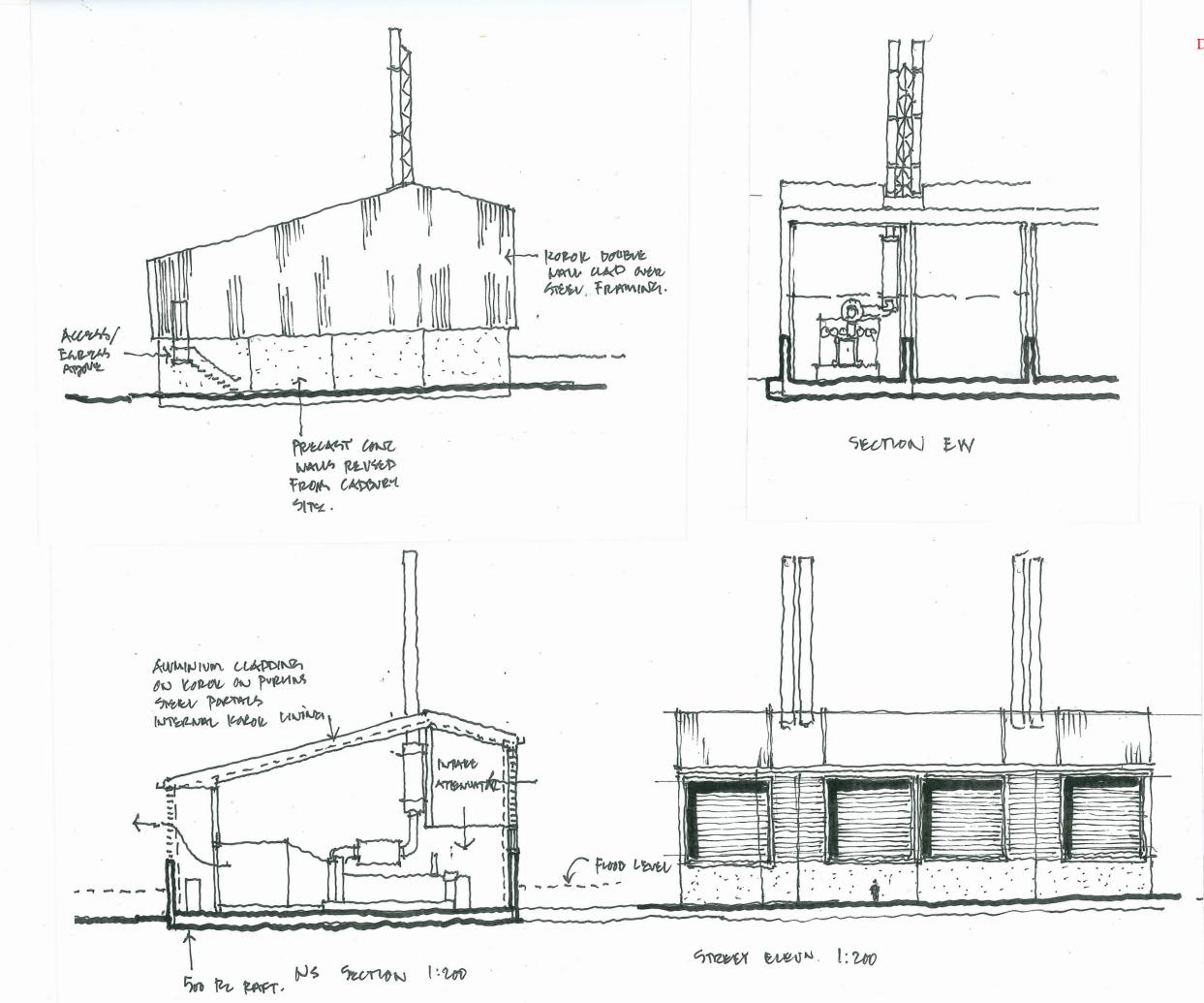
3



# Document 15A

BOW LONE GENERATOR PROPOSAL

6172 PLAN 1:400



NDH BOW LANE GENERATOR PROPOSAL 1:200 @ A3. LUGUST 2022

Document 15A

# Tua Tusa

From:	Kris Thomas < <mark>s 9(2)(a)</mark>
Sent:	Monday, 15 August 2022 3:07 pm
То:	Bill Gregory; Neil ODonnell; Alan Jones; Andrew Holmes
Cc:	Marcus Read
Subject:	RE: Base isolated flood level sorted generator?
Attachments:	20220812105953450.pdf

Hi all,

This looks good. I think we need to keep reminding people that large earthquakes and floods are <u>not</u> combined design events. Cracks can be repaired after an earthquake if required (unlikely given Holmes are designing it..)

The next thing we really need to challenge is the acoustics requirements for 'emergency only' generation.

Regards	ath
Kris Thomas s 9(2)(a)	
TOITU	cial m
Chel: here for our esculi dealormer.	
From: Bill Gregory S 9(2)(a)	
Sent: Monday, August 15, 2022 9:53 AM	
To: Neil ODonnell < <mark>S 9(2)(a)</mark> ; Alan Jo	nes < <mark>S 9(2)(a)</mark> com>; Andrew Holmes
<andrew.holmes@health.govt.nz></andrew.holmes@health.govt.nz>	
Cc: Marcus Read < S 9(2)(a) ; Kris Thomas S 9	
Subject: FW: Base isolated flood level sorted generator	?
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Controll

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Any further comments?

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### Richard



Richard	പ
Mob. <mark>s 9(2)(a)</mark>	.00
Sensitivity: General	
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Subject: Base isolated flood level sorted generator? x6	
Subject. Dase isolated nood level softed generator : xo	
2000KVA GENERATOR   GRS Website (generatorrentals.co.nz)	
Base isolated?	¢O`
Already raised? - may need fatter tyres and a carport…	
- may need faller tyres and a carport	
Regards	
Pill Crosser	
Bill Gregory B Arch (Hons), ANZIA, Reg Arch	
Principal	
-	
Directs 9(2)(a)	
Mobile s 9(2)(a)	
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Rachel Murdoch Senior Associate Greenwood Roche



Southern District Health Board Private Bag 1921 Dunedin 9054

18 February 2022

# Flooding risk for the New Dunedin Hospital's Outpatients' Building [your ref: GREE-DMS.FID91606]

Dear Rachel,

Thank you for your email of 2 February 2022 requesting a description of the Southern District Health Board's (Southern DHB) operational planning and procedures in the event of a significant flood event (1:500 year) affecting the New Dunedin Hospital's Outpatients' Building.

Given the Outpatients' Building's location at near sea-level, we would assume that a flood event of that magnitude would severely affect both our campus and the wider central city's infrastructure. Flooding estimates of a 1:500 year flood indicates that the building would not be inundated due to the raised ground floor, but would severely impact the ability to safely access the Outpatients' Building. We can confirm that we would close the Outpatients' Building under that scenario.

In order to reach this decision point, a number of steps would be followed. These are summarised, below.

# Emergency Operation Centre (EOC) will help guide our operational response

In the event of an adverse scenario such as this, an Emergency Operation Centre (EOC) is formed. Our EOC would be in close contact with the municipal EOC, which would lead city-wide emergency operations planning.

Southern DHB's EOC is comprised of emergency management planners, clinicians and senior operational colleagues, under the supervision of an Incident Controller. Our EOC would manage a major event from a whole of hospital perspective and would lead communications to staff. It would act as a control point for all issues related to the emergency for the hospital and is the key contact for other agencies such as Police, Fire, Civil Defence and Ambulance.

On notification of an event of this scale, an adverse weather emergency response plan would be executed. These response plans – based on a range of scenarios – are developed to help staff remain as safe as possible, acknowledging that severe weather conditions are potentially hazardous. They apply to all Southern DHB staff who work on a day (24-hour period) affected by adverse weather conditions or a Met Service warning of an impending adverse weather event.

The degree to which the hospital emergency processes are activated will depend on the severity and duration of the event. Our key priority is the safety of our staff and our patients, with our core business to provide healthcare services.





### Our operational response will be to prioritise risk management planning and recovery

In the event of a flood of a 1:500 year scale, a number of mitigation actions would be enacted following the EOC's determination that we need to evacuate the building. We would then work to operationalise our response. Unlike a seismic event, we would expect there would be sufficient time to help prepare for this event and our response/contingency planning would likely assume the water inundation would last for a matter of days.

It is important to highlight that the Outpatients' Building will not be essential to service delivery. The activity that will occur there will be, for the most part, deferable and/or could be undertaken in an alternative location.

Of note, modelling shows that lesser flooding events of up to one metre (1:10 year events) would also impact the Outpatients' Building. The main entrance via Cumberland Street and St Andrews Street would be inaccessible. In such an event, patients, visitors, staff and supplies would be redirected to alternative routes to entry via the northern public entrance and/or the loading dock.

Given the likely lead-in time of several days of the need for a flood re ponse, our priorities would be to defer patients and secure the building. Following that, we would minimise numbers of those in the building and, if deemed necessary, move vital clinical equipment to the second floor and above where practicable. We would hope that evacuation would not be required with enough notice of the scale of the flooding. Depending on how localised the flooding event was, we would consider moving services – and patients – to Wakari Hospital or elsewhere, potentially utilising helicopter support and/or 4WDs if appropriate.

Operationally and on advice that the major flood event has ceased, we would seek to restore services from the building as quickly as safely possible. We would also move to secure (or repair) any flood damage, which would need to include any damage to the plant rooms that might limit reoccupation of the building.

We hope this information is helpful to assist in the Outpatients' Building consenting process.

Yours sincerely,

Hamish Brown Acting Chief Operating Officer Southern DHB

Bridget Dickson Acting Programme Director Southern DHB