

Responses to questions Mr Blair put Mr Johnson following review of the email discussion trailing the questions. Mr Johnson's responses in red.

a. Capacity in the relevant vacuum sewer system

Q1 Is there discharge into the relevant vacuum sewer system?

Yes

Q2 If there is discharge into the relevant vacuum sewer system is there capacity for what will be discharged?

Yes

b. Effects of the proposed development on the capacity and operation of the vacuum sewer system and adjoining wastewater systems

Nil – since capacity has been allowed for in this instance due to it being a Greenfield Vacuum Sewer Catchment (NOT a SCIRT retrofit one)

Q3. If there is discharge into the relevant sewer system and if there is not capacity what would the adverse effects of this be?

N/A

Q4. Are there any adverse effects on adjoining sewer systems – e.g. the system that I understand the wastewater will be discharged into.

No

From: Johnson, Ian <ian.johnson@ccc.govt.nz>

Sent: Thursday, 12 December 2024 1:23 pm

To: Ray Edwards <ray.edwards@plancreative.co.nz>; Blair, Scott <Scott.Blair@ccc.govt.nz>

Cc: 'Johnathan Fairey | Tuatara Structures' <johnathan.fairey@tuatarastructures.com>; 'John De Ruyter' <john.deruyter@babbage.co.nz>; Wastewater Capacity <WastewaterCapacity@ccc.govt.nz>; 'Cheejo Zheng' <Cheejo.Zheng@babbage.co.nz>

Subject: RE: RMA/2024/2460 Mitre 10 flow rate conformation

Hi Ray/Scott

Sorry, it's taken a bit of time to collate the necessary information to confirm your two wastewater capacity queries which I've replied to (**red** text) and it's all positive. – all the best!

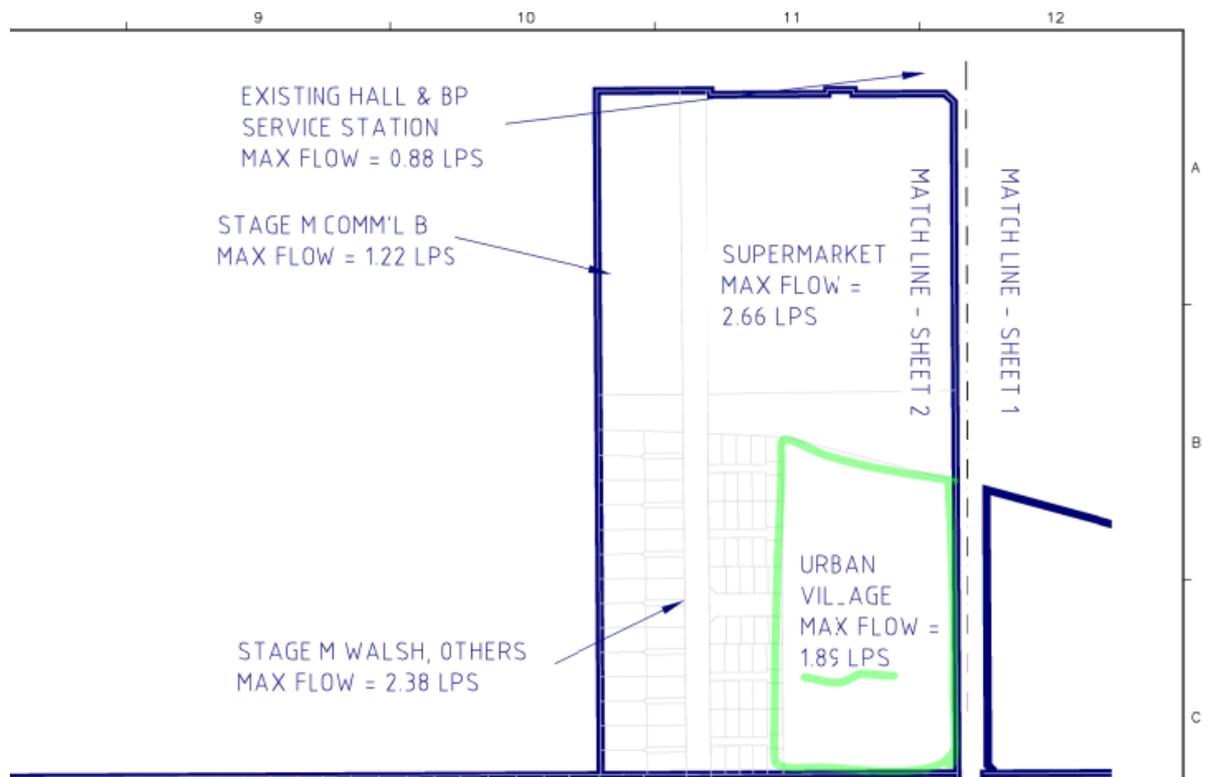
1. Ian, the Council has previously advised that the M10 building is to discharge to Georgina Street. I note from your email from yesterday that the design discharge limit is 0.8 l/s PWWF to Georgina Street. Given that Cheejos IDS based calculation for M10 is currently 0.79 l/s, does this mean that the northern retail blocks need to discharge to Prestons Road? **YES, whilst the existing DN125mm vacuum lateral in Georgina Street can accommodate more than 0.8 l/s based on the lateral's capacity, there is a downstream constraint which is why only a DN125 lateral (instead of a DN160) was provided to service #394 Prestons, with the intention being that it would serve the rear of the site which couldn't achieve gravity to the vacuum ww outfalls in Prestons Road. Therefore, I confirm that Babbage's PWWF (MF of 0.79l/s – 1.1l/s) for just the Mitre 10 Mega complex can be accommodated by the Georgina Street ww gravity outfall (DN125) lateral.**
2. Ian, please advise if the council requires the northern retail shops to discharge to Prestons Road then please confirm capacity for the Prestons Road discharge location once you receive Cheejo's updated calculations. **The attachment is the latest update I've received from Flovac for this site which is referred to as the 'Urban Village' and confirms there is capacity in the Prestons Road ww vacuum main for the future development to the north based on the estimated PWWF(MF) design flow from Babbage of 0.67l/s. Indicative**

connections (3) have been shown with a total discharge from the site of 3.87l/s.

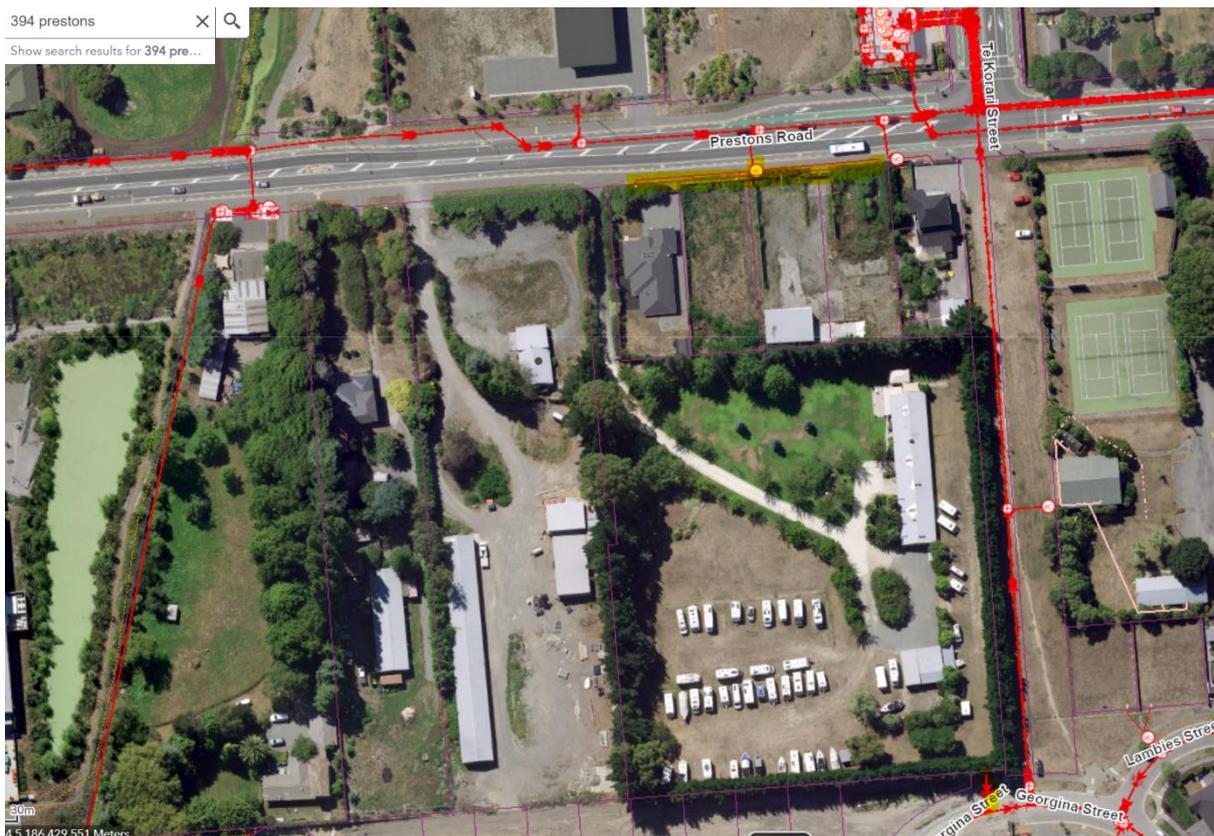
Typical vacuum pipe capacity figures

Design Flows are for:	Pipe sizing		
	Dia	Flow	
PE100 PN12.5 (SDR 13.6) Pipe	90	1	
Taken from the WSA-06, except 315 from FLOVAC and 90 from Watercare guideline	125	2.6	
	160	5	
	180	6.8	
	200	9	
	225	12.2	
	250	16.1	
	280	21.75	estimate
	315	27.4	

Original Vac Catchment Design Flows



Existing vacuum reticulation with vacpit and 150dia. gravity laterals (highlighted) which can be utilised to service some of the future northern development



Kind regards

Ian Johnson
Planning Engineer Subdivisions
Asset Planning - Water & Wastewater



[03 941 8399](tel:039418399)



Ian.Johnson@ccc.govt.nz



Te Hononga Civic Offices, 53 Hereford Street, Christchurch



PO Box 73014, Christchurch 8154



From: Ray Edwards <ray.edwards@plancreative.co.nz>
Sent: Thursday, 12 December 2024 12:02 pm
To: 'Cheejo Zheng' <Cheejo.Zheng@babbage.co.nz>; Johnson, Ian <Ian.Johnson@ccc.govt.nz>
Cc: 'Johnathan Fairey | Tuatara Structures' <johnathan.fairey@tuatarastructures.com>; Blair, Scott <Scott.Blair@ccc.govt.nz>; 'John De Ruyter' <john.deruyter@babbage.co.nz>
Subject: RE: RMA/2024/2460 Mitre 10 flow rate conformation

Thanks for those calculations Cheejo.

Over to Ian to confirm discharge capacity to Georgina and Prestons.

Ray Edwards
Managing Director
PlanCreative Limited



Mail: PO Box 10318, Christchurch 8145

Phone: 029 963 8727

Email: ray@plancreative.co.nz

CONFIDENTIALITY: This email (including any attachments) may contain confidential, proprietary and privileged information, and unauthorised disclosure or use is prohibited. If you receive this email in error and are not the intended recipient, do not read, use, disseminate, distribute or copy this message or attachments. Please notify the sender and delete this email from your system.

From: Cheejo Zheng <Cheejo.Zheng@babbage.co.nz>

Sent: Thursday, 12 December 2024 11:55 am

To: Ray Edwards <ray.edwards@plancreative.co.nz>; 'Johnson, Ian' <ian.johnson@ccc.govt.nz>

Cc: 'Johnathan Fairey | Tuatara Structures' <johnathan.fairey@tuatarastructures.com>; 'Blair, Scott' <scott.blair@ccc.govt.nz>; John De Ruyter <john.deruyter@babbage.co.nz>

Subject: RE: RMA/2024/2460 Mitre 10 flow rate conformation

Hi Ray and Ian,

Thanks for the catchup on Teams which clarifies the issue.

To my questions,

1. Cheejo, please confirm my understanding that the original M10 building design (which had the garden centre at the western end) needed a pump to deliver sewer discharge to Georgina Street, but that the redesigned M10 building (which has the garden centre at the eastern end) no longer requires a pump and will be gravity discharge instead.

Yes the redesigned M10 building will be gravity discharge.

2. Cheejo, please provide calculations for discharge for the m10 building. You have previously advised a M10 gravity discharge of 0.41L/s PWWF design flow, then updated to an IDS based calculation of 0.79 l/s. Please confirm what it will be.

Please adopt the **0.8L/s** PWWF design flow for Mitre 10 building. This is based on the fixture units of Mitre 10 building and compared with a few methodologies from the previous email.

3. Cheejo, please provide separate calculations for the retail buildings. These will likely contain retail shops, a gym, cafes and restaurants and potentially a preschool.

The north future development PWWF(MF) design flow is estimated to be **0.67L/s**. This is adopted from CCC IDS that taking future building and carpark areas (8936m²) into the calculation.

Any further questions please feel free to let me know.

Kind regards,

Cheejo Zheng BEng, MEngNZ

Civil Engineer



Babbage Consultants Limited   

128 Montreal St, Sydenham, PO Box 2373, Christchurch 8140

M +64 27 351 3761 **E** cheejo.zheng@babbage.co.nz **W** www.babbage.co.nz

Our Values: Sustainability, Team Work, Innovation, Professionalism, Respect.

CAUTION: This email message and accompanying data may contain information that is confidential and subject to legal privilege.

If received in error, please notify us immediately, do not distribute the information to any party and erase all copies of the message and attachments. Thank you.

Please consider the environment before printing this E-mail.

From: Ray Edwards <ray.edwards@plancreative.co.nz>
Sent: Thursday, 12 December 2024 11:05 AM
To: 'Johnson, Ian' <ian.johnson@ccc.govt.nz>; Cheejo Zheng <Cheejo.Zheng@babbage.co.nz>
Cc: 'Johnathan Fairey | Tuatara Structures' <johnathan.fairey@tuatarastructures.com>; 'Blair, Scott' <Scott.Blair@ccc.govt.nz>
Subject: RE: RMA/2024/2460 Mitre 10 flow rate conformation

Hi Cheejo and Ian,

I think there is some confusion as to what we have applied for resource consent for and what Babbage have been engaged to provide civil design for.

My understanding is that Babbage have been engaged to do the civils work for the m10 building. However, the attached site plan shows that what we have applied for resource consent for is not only the M10 building, but also for five retail buildings along the Prestons Road site frontage.

As of today, the District Plan contains new rule as shown below:

8.9A.3 RD 1	New activities or the expansion of activities beyond those that existed prior to 17 March 2023 that discharge wastewater into the vacuum sewer are a restricted discretionary activity.	Matter of discretion a. Capacity in the relevant vacuum sewer system b. Effects of the proposed development on the capacity and operation of the vacuum sewer system and adjoining waste water systems.
-------------	---	---

So, what we now need to demonstrate is that there is capacity in the Council sewer system to handle sewer discharge from development of the entire site as per the attached site plan, and not just the M10 building.

This raises the following questions:

1. Cheejo, please confirm my understanding that the original M10 building design (which had the garden centre at the western end) needed a pump to deliver sewer discharge to Georgina Street, but that the redesigned M10 building (which has the garden centre at the eastern end) no longer requires a pump and will be gravity discharge instead.
2. Cheejo, please provide calculations for discharge for the m10 building. You have previously advised a M10 gravity discharge of 0.41L/s PWWF design flow, then updated to an IDS based calculation of 0.79 l/s. Please confirm what it will be.
3. Cheejo, please provide separate calculations for the retail buildings. These will likely contain retail shops, a gym, cafes and restaurants and potentially a preschool.
4. Ian, the Council has previously advised that the M10 building is to discharge to Georgina Street. I note from your email from yesterday that the design discharge limit is 0.8 l/s PWWF to Georgina Street. Given that Cheejos IDS based calculation for M10 is currently 0.79 l/s, does this mean that the northern retail blocks need to discharge to Prestons Road?
5. Ian, please advise if the council requires the northern retail shops to discharge to Prestons Road then please confirm capacity for the Prestons Road discharge location once you receive Cheejo's updated calculations.

I need the answers to the above questions urgently as I need to lodge an updated consent application that includes the above answers tomorrow.

Please call me on 029 963 8727 if you have any questions.

Thanks

Ray Edwards

Managing Director

PlanCreative Limited



Mail: PO Box 10318, Christchurch 8145

Phone: 029 963 8727

Email: ray@plancreative.co.nz

CONFIDENTIALITY: This email (including any attachments) may contain confidential, proprietary and privileged information, and unauthorised disclosure or use is prohibited. If you receive this email in error and are not the intended recipient, do not read, use, disseminate, distribute or copy this message or attachments. Please notify the sender and delete this email from your system.