

Karen Jenkins

From: Kim Peart
Sent: Monday, 11 April 2022 11:33 AM
To: NMC Planning
Subject: REPRESENTATION PLN-21-0301: 17 Church Street, Campbell Town
Emergency Services

Follow Up Flag: Follow up
Flag Status: Completed



Figure 1 Photo found on the Campbell Town Show FaceBook site
..... <https://www.facebook.com/CampbellTownShowTas/>

Kim Peart
39A Bridge Street
Ross 7209 Tasmania

REPRESENTATION PLN-21-0301: 17 Church Street, Campbell Town Emergency Services

2022-03-21 Ordinary Meeting of Council - Open Council - Agenda
14.1 DRAFT AMENDMENT 04/2021: PLN-21-0301: 17 CHURCH STREET, CAMPBELL TOWN page 61 to 91

<https://northernmidlands.tas.gov.au/source-assets/files/2022-Council-Agenda-and-Attachments/2022-03-21 Ordinary Meeting Open-Council-Agenda.pdf>

2022-03-21 Ordinary Meeting of Council - Open Council - Attachments

<https://northernmidlands.tas.gov.au/source-assets/files/2022-Council-Agenda-and-Attachments/2022-03-21 Ordinary Meeting open-council-Attachments-p45-291-rs.pdf>

Is 17 Church Street the best location in Campbell Town for a new Fire Station?

As the aerial photo above shows, for two days in June every year the Campbell Town Show is on, where fire engines would encounter horse floats, trucks and innumerable cars, where an accident could prevent a fire engine from reaching a fire emergency. [Fig.1] There could also be problems with the school nearby, which may limit the exit roads available in an emergency, and where any confusion over access could lead to serious delay.

Considering these obvious traffic issues, it is concerning that no traffic or road safety study is included with this Development Application, and this was not requested by Council planners. Why is this essential report missing in the application for the development of a new Fire Station in Campbell Town?

There is mention that a number of sites were considered, but these sites were not listed, or the reasons given for their rejection, where I read "A number of site options around Campbell Town have been considered including redevelopment of existing sites. However, the preferred at 17 Church Street (part of CT14992/1), has been identified as a suitable green field site within the town boundary that will best meet the needs of the project."

No reasons are given as to why the current site by the Town Hall was rejected, though it is located on the main road, and there would be ample space to include Emergency Services in a new complex. The Ambulance Station is now located on the main road, which was formerly located on a back street, so why move the Fire Station from a main road location to a back street? The reason needs to be on the table and properly explained.

When becoming aware of the proposed new location for the Fire Station, I suggested to the Mayor and Councillors that they should take a proactive role in where the new Fire Station could be located, as this would be good town planning for an essential public service. A reply from the Mayor was received, explaining "Council was not involved in identifying a location for the Fire Station in Campbell Town. The Tasmanian Fire Service is a state department. It is not the role of Council to be involved in the decision making process for organisations external to Council. The Tasmanian Fire Service is more than adequately equipped to identify an appropriate location for a Fire Station, and to expect that Council should be involved in that process is an affront to that organisation and the expertise within. In addition to the comments above, the Tasmanian Fire Service engaged the services of an independent planning firm to assist with the preparation of the application which was before Council. Engaging independent planners to advise on the project is a demonstration of following a good planning approach." [Fig.2]

This view was also echoed in a brisk Email from Cr Jan Davis, who wrote "As I am sure you are aware, the decision regarding a new location for the fire station is a matter for Tas Fire Services - and through them to the state government. Council has absolutely no role to play in this decision, other than to consider a planning application and ensure all planning requirements are complied with - as it would for any other developer. If you have concerns about this proposal, I suggest you take them up with the state government." [Fig.3]

Cr Davis may be pleased to note that I did write to the Minister for Emergency Services, and include the reply below. [Fig.4]

This hands-off approach by Councillors, with the location of essential services in the context of good town planning, stands at odds with what happens in other places. The Burnie City Council had quite a lot to say about the location of an essential public service, applied proactive town planning, and were successful in getting a better outcome for their ratepayers and business community. Mayor Steve Kons declared "To make a decision without canvassing all options was something we didn't agree with." [Fig.5]

Clearly, it is possible, acceptable, and responsible for elected Councillors to lobby the Tasmanian Government about the location of a public project and essential service in their municipality. So, for the Mayor and a Councillor to scold me on the matter, and tell me "to expect that Council should be involved in that process is an affront to that organisation and the expertise within" [Fig.2] reveals a complete lack of understanding about the role of a Council and the elected representatives in a dynamic democracy. In fact, I would suggest that it could be viewed as an "affront" to the Council, as town planners, to be excluded from identifying the best location for a new Fire Station in Campbell Town.

The secrecy surrounding the selection of the site at 17 Church Street among a tight circle of those involved, leaves the question wide open, as to why the present location by the Town Hall was found to be so unacceptable, even though it is a main road location, just like the new Ambulance Station. [Fig.6] A new building could be level with the street, with a lower level beneath. If there are concerns about view lines with the Library, a new Library could be built, set back from the road, as part of the redevelopment. So why is it so important to move the Fire Station from its present location?

This situation naturally leads to speculation about what the Tasmanian Government has in mind for the site. With the Town Hall set for sale by the Northern Midlands Council, there is logical speculation about a potential secret plan for the site, especially with Cr Goninon, a developer, always leaving the Council meeting when the Town Hall is on the agenda. Why is the Tasmanian Government so determined to avoid any discussion about this site?

I have written to the Tasmanian Government a great many times, suggesting that a civic and cultural centre could be created on this public land next to and including the Town Hall. The new building could include a new shop for Service Tasmania, and a new library. Campbell Town is a regional centre, and should be supported as a hub for regional services, which can include a cinema and theatre for plays. The Town Hall was designed as a place for movies and plays, and this role could be revived and the building revitalised as part of a larger cultural and civic centre, with new toilets, cafe, and a regional art gallery.

Why the Council so stubbornly refuse to discuss a public future for the Town Hall, is quite mysterious. Who does the Northern Midlands Council serve? Now we need to wonder if Service Tasmania will be lost from Campbell Town, and if the Museum and Visitor Information Centre will simply disappear. Do we also need to wonder if the Library will be lost to Campbell Town? A main road location for a Fire Station would not be vacated without a jolly good reason. That reason needs to be on the table and clearly explained.

The Mayor and a Councillor getting so angrily defensive about my suggestion that the Council has a natural democratic right to engage in discussions with the Tasmanian Government about the selection of the location of a new Fire Station in Campbell Town, reveals a sad drift by the Council into autocracy, where the best interests of the ratepayer and of town planning are set aside. The reality of this drift became a stark fact in June 2021, when all Councillors voted to set aside the requirement for the Tasmanian Government to apply for a Development Application for a \$6.5 million underpass in Campbell Town, with no debate in a decision taking only 18 seconds. [Fig.7] If a Development Application had proceeded, the ratepayers and anyone else interested, would have been able to examine all related documents, and make a considered representation.

Why did the elected Councillors so wilfully suspend democracy with the Campbell Town underpass? Have they become rubber stamps for the Tasmanian Government, rather than elected representatives of the Northern Midlands municipality? When did democracy die in the Northern Midlands?

One explanation for the lack of understanding of how democracy works, and what is possible, acceptable and even expected at times, could be the existence of seven mini-councils (Special Committees of Council for towns and districts) with up to 70 unelected ghost councillors, all beholden to the Council for their positions, working largely in secret and with no contact person, other than the Council. How infectious is this environment of secrecy?

Campbell Town, for instance, has no ratepayer, community or progress association. The existence of the mini-council (Campbell Town District Forum), beholden to the Council for their existence, and funded by the Council, has effectively displaced any independent voice of a community association. A similar situation exists in Ross, where the mini-council cannot even be approached. Any ratepayer seeking to raise a matter is directed to the Council, who

may or may not direct their concern to the Ross mini-council. There is a good chance that the ratepayer will never hear back. The last time I attended a meeting of the Ross mini-council in 2019, I was denied the right to speak.

I see a pattern, with the mini-councils looking to the Council, whom they serve, and the Council looking to the Tasmanian Government, whom they appear to serve. How else would a decision of Council happen in 18 seconds, liberated of any debate on a \$6.5 million underpass in Campbell Town? This would also help to explain the letter received from the Mayor, and the Email from a Councillor. I see a serious warping of the democratic process and good decision making with a view to best town planning practice.

The sad outcome of the elected Councillors handing out their elected authority to up to 70 non-elected ghost councillors, creates a situation where Councillors are lost and unsure of their role as elected representatives, and make too many decisions that lack clarity. The Councillor decision on the entrance statements for Campbell Town is a poignant example of a muddy non-decision, with the whole matter being sent off to the General Manager to make detailed decisions.

I hope the elected Councillors will wake up to this problem, and not simply follow the drum of the Tasmanian Government, but start to think and make clear informed decisions. The Tasmanian Government loves this situation, because they know what can happen, and so avoid proper consultation and get what they want. I hope that the decision on this new Fire Station will not be another repeat performance, but be a surprise to the new Premier with a strong dose of good town planning.

Faced with this brick wall of secrecy and autocracy, I can understand why many people simply give up and no longer bother. What are we left with? Stronger groups have the ear of the Council. Good town planning ideas are ignored by the Council. In this environment individuals can be left feeling isolated and ignored, and can become angry, which was seen in the aftermath of the Campbell Town underpass decision by the Council. I fear that a similar outcome will happen with moving the Fire Station to 17 Church Street, that people will wake up to the problems and autocratic secrecy when it's all too late, and then become angry. This is not how a healthy democracy should work.

When the Midland Agricultural Association applied for the subdivision of the land at 17 Church Street, the sign on the fence was hidden behind a bush. [Fig.8] This appeared to be seeking to keep the matter secret, and as the Council usually puts such signs on fences in clear view, one but wonders how far the circle of secrecy was extending, and how strong the wish was to keep the matter quiet. If there were no representations on the subdivision application, the hidden location of the notice could be the reason.

It seems like an odd situation that the Tasmanian Government does not own the land at 17 Church Street, but has an agreement with the Midland Agricultural Association to buy the land, if the rezoning and Development Application is approved. The price of the land is not revealed. With ever changing real estate values, could the whole project be torpedoed if the Association decides not to sell, or asks for a higher price? Should the Association go bankrupt, would the land still be available?

With so much work having been done by so many, liberated of any town planning debate for the best location, will this warp the consultation process? Many may decline to say anything, as now there is a high level of expectation that the new Fire Station will proceed on this location, and no other. I have received communication on my FaceBook page declaring "Shouldn't we be supporting our local emergency services instead of fighting them over a location?" [Fig.9] This style of comment could become a form of bullying in the community, pushing residents to agree, or face the thunder of the Emergency Services volunteers and their supporters.

That view was also stated by Cr Adams, when he declared "Upgrading the local Fire Service in Campbell Town, a large region, agriculture and townships, and it's very important that we approve this and let them get on and build it." [Fig.10] Does Cr Adams have no interest in democratic debate and what the people have to say, which could reveal new information that he should consider? Is it appropriate that Cr Adams should have made up his mind so completely at an early stage?

In conclusion, I wonder if it is acceptable to be advertising this rezoning and Development Application for a new Fire Station at 17 Church Street, Campbell Town, without a traffic and road safety report? How can the ratepayers,

Council staff, or elected Councillors consider a new Fire Station without a traffic and road safety report? Could this situation be a classic oxymoron when it comes to proper town planning?

Yours sincerely,

Kim Peart

ILLUSTRATIONS

Figure 2

From the office of the Mayor



22 March 2022

Mr Kim Peart:

Via email only: kimpeart@inet.net.au

Dear Mr Peart

NEW FIRE STATION IN CAMPBELL TOWN

I refer to your email dated 21 March 2022 regarding the application before Council at its meeting of 21 March 2022 to initiate a draft amendment to the *Northern Midlands Interim Planning Scheme 2013* to allow for and approve the development of a fire station at 17 Church Street, Campbell Town.

You have asked a series of questions in your email. The questions which are relevant to Council, I have responded to below.

Was Council involved in identifying a location for the Fire Station in Campbell Town? And if not, why not?

Council was not involved in identifying a location for the Fire Station in Campbell Town. The Tasmanian Fire Service is a state department. It is not the role of Council to be involved in the decision making process for organisations external to Council.

The Tasmanian Fire Service is more than adequately equipped to identify an appropriate location for a Fire Station, and to expect that Council should be involved in that process is an affront to that organisation and the expertise within.

In addition to the comments above, the Tasmanian Fire Service engaged the services of an independent planning firm to assist with the preparation of the application which was before Council. Engaging independent planners to advise on the project is a demonstration of following a good planning approach.

Should the community be involved?

The Community will have the opportunity to make input publicly through representations to the draft amendment when it is placed on public exhibition.

Does the relocation of the Fire Station indicate development plans with the Town Hall in Campbell Town?

No, it does not.

Design and location of the Fire Station building

This is a question for the Tasmanian Fire Service as ultimately the design and location are a decision of that organisation and unrelated to Council.

Finally, I take offence at the implication your email makes that Council is somehow involved in "secret plans" regarding community assets. You are on notice that should I receive communication from you of this nature again, a response will not be provided.

Yours sincerely

A handwritten signature in black ink, appearing to read "M Knowles".

Mary Knowles OAM
MAYOR

Figure 3

Email from Cr Jan Davis 28 January 2022

Mr Peart

As I am sure you are aware, the decision regarding a new location for the fire station is a matter for Tas Fire Services - and through them to the state government.

Council has absolutely no role to play in this decision, other than to consider a planning application and ensure all planning requirements are complied with - as it would for any other developer.

If you have concerns about this proposal, I suggest you take them up with the state government.

Regards

Jan Davis
Councillor, Northern Midlands Council

Figure 4

Friday 25 February 2022

Dear Mr Peart

Thank you for your correspondence of January 2022 regarding the Campbell Town Fire Bri

I have sought advice from the Tasmania Fire Service (TFS) and the State Emergency Service query.

I am advised that the TFS and the SES are currently operating from separate locations with sites are in generally poor condition and are nearing end of life as suitable facilities to provide response and support services. As a result, there has been planning undertaken to provide broader Northern Midlands community with a new, contemporary, fit-for-purpose emergency facility which will be able to meet their needs well into the future.

This new facility and the co-location, will enable both the TFS and the SES to respond to the one location, streamlining both infrastructure costs and human resource capabilities.

The TFS and SES have undertaken a thorough review into appropriate sites to accommodate significant consideration given to ensuring the selected location met all operational capabilities with any Northern Midlands Council (the Council) development requirements.

Following that process, I am advised that 17 Church Street, Campbell Town was deemed suitable for construction of the co-located facility.

In accordance with construction developments proposed for the area, the TFS was required to submit an application to the Council for its consideration. The Department anticipates that this development will shortly be assessed at an upcoming Council meeting.

Subject to the outcomes of the assessment of the application, the TFS anticipates that the facility will be advertised by the Council in order to seek representations from the public in, line with Council processes. I encourage you to make representation to the Council through this process.

Thank you for raising this important matter with me.

Yours sincerely

Jacquie

Hon Jacquie Petrusma MP
Minister for Parks
Minister for the Prevention of Family Violence
Minister for Police, Fire and Emergency Management
Liberal Member for Franklin

Level 5, Parliament Square
4 Salamanca Place, Hobart, TAS, 7000

Figure 5

Tasmanian government reverses plan to move Burnie court out of central business district

Damian McIntyre, 23 March 2022, ABC News Online

<https://www.abc.net.au/news/2022-03-23/tasmanian-government-backflip-on-burnie-court-move/100932530>

The Tasmanian government has backflipped on its controversial decision to relocate the Burnie court complex to a residential area after community backlash.

In August 2020, the state government announced plans to build a new court at the former University of Tasmania's Cradle Coast campus on Mooreville Road at a cost of \$40 million.

But there has been growing unrest in the community — including from the Burnie City Council — that it's the wrong site.

There are calls for another site in the CBD to be found.

Instead, the government will open an expression of interest process to find potential new sites in the city centre.

Premier Peter Gutwein said the government had listened to the community.

"While the Mooreville Road site was identified as a suitable Crown land site for a new court complex following a significant review process," he said.

"It is clear there may be additional sites in the CBD that could now also be suitable, pending consideration by landowners."

Law Society of Tasmania president Simon Gates has welcomed the backflip on the old university site, which had been identified as the best option by the Department of Justice.

"The Law Society has for some time had concerns about people travelling to and from a court located out of the CBD," Mr Gates said.

"There could be designated buses for that purpose, but the concern would be you may end up with complainants and defendants and witnesses all having to catch the same bus.

"There's no question that the current Burnie court facility isn't fit for purpose and so the question really now is whether a suitable alternative site can be identified."

Options already identified

Burnie Mayor Steve Kons said transport, the effect on residents near Mooreville Road, and a loss of business in the city were among the council's concerns.

"Taking an enterprise which is a large people-generating place out of our CBD was always going to be difficult," he said.

"Courts are not just about criminal courts, civil actions, family law issues — there's plenty of other things that the courts do and having it in our CBD is the most appropriate place to have it."

He said several sites have been identified in the CBD, and one had already been presented to council.

"To make a decision without canvassing all options was something we didn't agree with," he said.

Relief from business lobby

Business North-West chamber of commerce president Ian Jones said the CBD would have suffered if the court was built at the old university site.

"We didn't want all of that revenue being taken out of the central business district because that helps prop up some of those smaller businesses," Mr Jones said.

His group had suggested an option across the road from the police station.

"That, and some other buildings adjacent to it, are capable of providing an excellent footprint for the new courthouse," Mr Jones said.

The EOI process is expected to be completed within three months.

Figure 6 Current Fire Station location by the Town Hall in Campbell Town



Figure 7

Northern Midlands Council meeting 28 June 2021 audio recording

27:42 on the recording Lasting 18 seconds

<https://www.northernmidlands.tas.gov.au/source-assets/files/2021-Council-Agenda-and-Attachments/2021-06-28-Session-2.mp3>

Mayor Knowles Planning 2 The request for a planning exemption for the Campbell Town underpass.
Councillor Davis.

Cr Davis I'm happy to move the recommendation.

Cr Goninon Seconded.

Mayor Knowles Cr Goninon is seconding. Any discussion? OK, I'll put that recommendation. All those in favour.

All councillors Aye.

Mayor Knowles Against? Carried.

Figure 8 Subdivision notice of April 2021 for 17 Church Street, Campbell Town, hidden behind a bush



Figure 9 Comment on my FaceBook page

Shouldn't we be supporting our local emergency services instead of fighting them over a location? The current SES and Fire Brigade are struggling for numbers so instead of picking up your pen to complain about the new location why don't you pick up a pen and fill in an application form to join our volunteers who need help. We should be grateful that they are wanting to give us a better facility and combine the Fire Service and SES. Prospect Fire Station is opposite a school which is a lot closer than what the Church Street station will be to our school and they don't have any issues so why make a Mountain over a Mole Hill.

What's the alternative the current stations fall down around them and we lose them. As for your suggestion of the land opposite the new Ambulance Station near \$500,000 is a lot to spend on land before you start building and wouldn't that money be better in providing maybe a new Fire Truck, SES truck more training for our VOLUNTEERS who give up there time to protect and help us.

Figure 10

The Council Decision

Northern Midlands Council Meeting Minutes Monday 21 March 2022

14.1 DRAFT AMENDMENT 04/2021: PLN-21-0301: 17 CHURCH STREET, CAMPBELL TOWN page 67

<https://northernmidlands.tas.gov.au/source-assets/files/2022-Council-Minutes/2022-03-21-Open-Council-Minutes-Ordinary-Meeting.pdf>

Decision page 97 to 100

Carried

Voting for the Motion:

Mayor Knowles, Deputy Mayor Goss, Cr Adams, Cr Calvert, Cr Davis, Cr Goninon, Cr Lambert and Cr Polley

Voting Against the Motion:

Cr Brooks

Audio 20:50

<https://northernmidlands.tas.gov.au/source-assets/files/2022-Council-Minutes/2022-03-21-Session-2.mp3>

Mayor Knowles Planning 1, 17 Church Street, Campbell Town

GM Jennings Draft amendment to make Emergency Services an allowable use, 17 Church Street, Campbell Town. The zone is currently general residential and it's combined with an application to develop a Tas Fire Station, should the amendment be successful. So the recommendation there is to initiate and certify the draft amendment and approve the draft permit.

Mayor Knowles Cr Goss.

Cr Goss I'd like to move the recommendation.

Cr Goninon I'll second that.

Mayor Knowles Cr Goninon is seconding. Any discussion?

Cr Adams Upgrading the local Fire Service in Campbell Town, a large region, agriculture and townships, and it's very important that we approve this and let them get on and build it.

Mayor Knowles Cr Goss.

Cr Goss No.

Mayor Knowles Oh, beg your pardon. Sorry. Cr Brooks. You're on mute.

Cr Brooks OK now?

Mayor Knowles Yes, thank you.

Cr Brooks I couldn't support it. There's a few reasons there, as to why I can't support it. Cause you know, it's proposed for the wrong zone, and if we keep making these sort of decisions, and putting these things in residential areas, I'm just a bit worried where does it stop. And the community in Campbell Town, they haven't been consulted, at all. I've had numerous calls from people in Campbell Town and they have been suggesting there are a lot better sites for this. I've read the report on just the storm water issues, and I'm not convinced that this is the right area for anything of this magnitude. It disrupts the zone, the residential zone, quite considerably. (inaudible) There is another government owned block in West Street that would be a lot better suited for a development of this magnitude, and I just can't support making an amendment to the zone to allow a building of this magnitude into a residential area.

Mayor Knowles Thank you. Cr Lambert.

Cr Lambert I just wanted to confirm, if this is passed tonight, it will go out for public consultation again? That's part of the

GM Jennings Yer, that's right. If Council initiates this tonight, it will go out on public comment for 28 days.

Cr Lambert 28 days. Thank you.

Mayor Knowles Any further comments? OK, I'll put the recommendation. All those in favour?

Councillors Aye.

Mayor Knowles Against? Cr Brooks. Nobody else? Motion passed.

Rosemary Jones

From: Derek Porter
Sent: Monday, 25 April 2022 1:15 PM
To: Cr Mary Knowles; Cr Richard Goss; Cr Dick Adams; brooksy69@bigpond.com; Cr Andrew Calvert; Cr Jan Davis; Cr Ian Goninon; Cr Janet Lambert; Cr Michael Polley; NMC Planning; jacquie.petrusma@dpac.tas.gov.au; guy.barnett@dpac.tas.gov.au
Subject: Fwd: 17 Church St Campbell Town

Follow Up Flag: Follow up
Flag Status: Flagged

REF No: PLN-21-0301 17 CHURCH ST, CAMPBELL TOWN, TAS 7210

I oppose the above planning development. I have submitted my reasons for your consideration.

Please acknowledge receipt of this email.

Derek Porter

EMERGENCY SERVICES FACILITY FOR TFS AND SES 17 CHURCH ST CAMPBELL TOWN (PLN 21 - 0301)

This Development is Opposed

1) The land at 17 Church St, Folio 14992/1 is zoned for General Residential.

This prohibits its use by Emergency Services for practical reasons. The Northern Midlands Council (NMC) has surreptitiously inserted a qualification on Folio 14992/1 to enable Emergency Services to be used within the "Discretionary Category"

Not only is this highly irregular, it is illegal.

The Planning Scheme, Section 20(8) clearly states

"The coming into operation of a planning scheme or a special planning order does not legitimize a use or development which was illegal under a planning scheme or a special planning order in force, immediately before that coming into operation."

2) The Use of Road Infrastructure.

Under the Act E4.6.1 the Performance Criteria for this proposed development states:

"the site should be within 50 metres of a Category 1 or Category 2 road."

As defined by the Dept of State Growth under the Road Hierarchy it states:

Category 1 - Primary Freight Road

Category 2 - Major Regional Road

17 Church St is a sealed back road barely 4.2 metres in width and would be classified Category 5 at best. The road is not constructed for heavy vehicles and as there is no storm water drainage it is in need of continual repair.

Again this does not comply with the regulations

3) There is a Requirement for a Traffic Impact Statement (TIA) Under the Guidelines E4.5.3

E4.5.3 states a (TIA) must be accompanied by written advice from the road use authority in respect of the road (Church St)

This is a requirement to demonstrate compliance with performance criteria.

Northern Midlands Council (NMC) has advised:

E4.6.1. a2

'less than 40 vehicle entry and exit movements per day are expected'

Can NMC produce the report and when and at what time it was conducted.

Clearly at school drop off and pick up times and the Campbell Town Showground Events there is significantly more traffic.

4) Then there are concerns from the Report from Councils Consultant Hydrologist: I quote:

"Given the proposal of the site, mains water use is extremely likely for washdown of vehicles and plant and potentially for training purposes.

It is not known what volumes of operational water will enter the proposed systems, or if they will enter the sewage system.

Infiltration systems are prone to failure. Gross pollutants may enter the detention basin causing it to overtop onto neighbouring properties."

"If any of the above items are not properly considered there is potential for the system to fail and cause a nuisance.

This proposal is unique in that it is more similar to an industrial site and therefore the potential risk is greater."

5) Further notes:

Tas Water is aware water pressure in this street is always at minimal acceptable levels. Tas Water have investigated and say the solution is to construct a larger diameter water pipe down the length of Church St to service the residents.

If this proposal goes ahead Tas Water would need to factor into the budget these additional costs

Telecommunications is a problem in Church St. Currently the nearest NBN node is 1.2 kms distant and residents are serviced by copper wire/WiFi combination which is unreliable.

What other locations has the Northern Midlands Council given serious consideration. There are more appropriate sites: eg: the land for sale opposite the new ambulance building and on the side of the building.

None of the residents in Campbell Town have been canvassed for their opinions. It is a disgrace that this draft amendment has been allowed to get to this stage without consultation with the people in Campbell Town. Clearly it does not conform to the issues I have raised.

I oppose the location of this Emergency Services Facility for the TFS and SES at 17 Church St Campbell Town for all the above reasons.

Derek Porter M.I.E.M.S
36 Church St
Campbell Town

Rosemary Jones

From: Elizabethn P
Sent: Monday, 25 April 2022 3:09 PM
To: NMC Planning
Cc: jacquie.petrusma@dpac.tas.gov.au; Guy Barnett; mary.knowles@gmail.com; councillor.gos@gmail.com; Cr Dick Adams; Matthew Brooks; Cr Andrew Calvert; Cr Jan Davis; Cr Ian Goninon; Cr Janet Lambert; Cr Michael Polley
Subject: Ref No PLN - 21-0301 17 Church Street Campbell Town 7210
Attachments: 11 West StreetHouse and Shed.JPG; Subdivision Notice 17 Church St April 2021.png
Follow Up Flag: Follow up
Flag Status: Flagged

To the General Manager, Mayor and Councillors I am totally opposed to this planning development and submit for your consideration the following reasons.

I would also ask that this letter be acknowledged on receipt of same.

Re: PLN -21-0301

The proposed amendment referred to above is totally opposed.

- 1) The establishment of such a large and vital infrastructure facility on a Campbell Town BACK street absolutely defies common sense, let alone planning integrity.
- 2) Issues such as water pressure (which is at lowest acceptable level due to the pipe size) will be further challenged by the planned fire station with its demand for water.
- 3) Communication is also a vital necessity for both the fire station and the SES and the current NBN combination of copper-wire and WiFi infrastructure to residents provides sufficient frustration without the extra demand which will be claimed by this planned emergency service.
- 4) Access to the highway on both the Southern and Northern routes will be difficult. Emergency call outs could potentially be severely restricted when parents are accessing the school to deliver or collect their children.
- 5) Community consultation and discussion as to this move has been Non-Existent and residents both in Church Street and Glenelg Street believe that no amount of objections will make any difference to the final outcome which many believe has been decided in favour of this move.
 I have also heard that some volunteer fire fighters had no idea as to this site in the back streets of Campbell Town was being considered and think like so many that it is not the correct site for relocation.
 Possible sites mentioned have been up on highway opposite the new Ambulance building also there is another property nearby and if one must change the status from residential to the Emergency Services Use, the perfect spot would be the Government (Health) owned property at 11 West Street, not 10 seconds from the North Midland Highway. See Attached Photos.
- 6) My final point is the historic association of the show grounds and surrounds like the Anglican Cemetery. The land discussed was given to the Midlands Agricultural Association way back in 1837. (the subdivision notice of April 2021 for 17 Church Street Campbell Town was placed behind a bush and therefore not noticed by residents. See Attached photo) There are many houses in Church street with historic links.
- 7) All up the proposed site is totally unsuitable for the relocation of the fire station and SES.

Yours Sincerely

Elizabeth Porter
36 Church Street
Campbell Town
Tas 7210



Karen Jenkins

From:
Sent: Thursday, 28 April 2022 9:45 AM
To: Rosemary Jones
Subject: FW: Representations 17 Church St Campbell Town

Follow Up Flag: Follow up
Flag Status: Flagged

For your information, I will ECM

Natalie Horne

Our Longford office is closed to the public, however meetings with Council Officers can be made by appointment only, and we ask that transactions be conducted via telephone or online wherever possible. Our Customer Service team can be contacted by phone, post, via our website or email at council@nmc.tas.gov.au Our priority is to keep our community, including staff, ratepayers and residents safe and to minimise the spread of COVID-19.

Administration / Records Management Officer | Northern Midlands Council Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: natalie.horne@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

-----Original Message-----

From: Andrew McCullagh
Sent: Thursday, 28 April 2022 7:28 AM
To: NMC Planning <planning@nmc.tas.gov.au>
Cc: Paul Godier <paul.godier@nmc.tas.gov.au>
Subject: Representations 17 Church St Campbell Town

The Planning Officer
Northern Midlands Council
13 Smith St
Longford
Tasmania 7301

Dear Sir / Madam

REPRESENTATIONS AGAINST REZONING 17 CHURCH STREET CAMPBELL TOWN.

The idea of relocation the Campbell Town Fire Station to a “back street” in Campbell Town, is one of the more absurd things I have heard in recent times.

The area earmarked for relocation is set in a quiet residential area, and boasts a series of difficult traffic flows to get to the main street of Campbell Town where the current facility exists.

The school is located at the end of Church St and would prove a danger ongoing, most particularly at drop off and collection times, and likely prove a traffic hazard at these times.

The Council, at the request of the Campbell Town School recently asked for a pedestrian underpass (currently under construction), for the increased safety of children on the adjoining roadway (Main St) to the school, and now suggest it logical to increase danger levels by running emergency traffic past the school from the other side.

After the challenge of narrow streetscapes, traffic and pedestrians, you either take a left or right to simply get to the main road through streets not designed or conducive to Emergency Service Vehicle use on an ongoing basis.

Due to the location and the street network, the extra time to get to and from the location by volunteers would be considerable also. Again adding further risk given the school would need to be passed yet again.

Then for two days a year you would additionally have the Show Grounds at full capacity further inhibiting traffic flow and public safety.

Further, the area is a quiet residential precinct with Heritage houses in the area, totally unfitting for a Fire Station that currently sits in a perfectly good location.

The proposal seems extremely short sighted, and it appears influenced by matters outside that of a normal planning process and logical process for locating emergency services.

Placed simply there is very little upside to rezoning this land, and substantial downside. It simply defies any rational logic and appears a conjured plan for other reasons outside proper diligent planning processes.

The manner in which the Council have dealt with this, appears to support that logic.

Would it pass the pub test, unequivocally no, so for the foremost Planning authority in the State to even consider this reasonable, would be remote I suggest.

Please can you ensure this is passed on to the appropriate area as a representation against the proposal.

Regards and Thanks

AM

Rosemary Jones

From:
Sent: Friday, 29 April 2022 4:10 PM
To: NMC Planning
Subject: PLN-21-0301 - Planning Scheme Amendment 17 Church Street Campbell Town

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Sir/Madam,

I wish to object to the Draft Planning Scheme Amendment 04/2021 to amend clause 10.2 General Residential Zone Use Table of the Northern Midlands Interim Planning Scheme 2013, by inserting "or on Folio of the Register 14992/1 (17 Church Street, Campbell Town)" into the qualification column of the Emergency Services Use Class within the Discretionary category.

The land at 17 Church Street, Campbell Town is not a suitable location for an emergency services facility as it is located in a quiet residential street. The applicant claims "A number of site options around Campbell Town have been considered including redevelopment of existing sites", however, these alternative sites are not identified and there is no explanation as to why they were considered unsuitable. The whole exercise seems to have been focused on forcing the emergency services facility onto this suburban block the applicant does not even own.

In addressing the risk of land use conflicts the applicant states "There is a row of residential properties on the opposite side of Church Street. The Use Standards under Clause 10.3 of the planning scheme will continue to apply and will ensure that any future use and development on the land for an Emergency Services use will not adversely impact upon the occupiers of adjoining nearby uses." It seems likely that increased noise and traffic movements will impact on the amenity of the residential area. If the emergency services facility is forced to limit its operations to comply with the planning scheme doesn't that defeat the purpose of building the new facility in the first place. It would be far better if the applicant (the State Government, Department of Police, Fire and Emergency Management) carried out a thorough and transparent search for a suitable site within Campbell Town for this important facility and involved the whole community in this process rather than restricting consultation to selected stakeholders.

Yours sincerely,
Jennifer Bolton
39A Bridge Street
Ross Tasmania 7209

**NORTHERN MIDLANDS INTERIM
PLANNING SCHEME 2013**

DRAFT AMENDMENT 04/2021

To amend clause 10.2 General Residential Zone Use Table of the *Northern Midlands Interim Planning Scheme 2013* by inserting 'or on Folio of the Register 14992/1 (17 Church Street, Campbell Town)' into the qualification column of the Emergency Services Use Class within the Discretionary category so that it reads:

10.2 Use Table

Discretionary	
Use Class	Qualification
Emergency Services	If on CT 76398/4 & 5 (176 High Street, Campbell Town); or on Folio of the Register 14992/1 (17 Church Street, Campbell Town).

The **COMMON SEAL** of the)
Northern Midlands Council is)
hereunto affixed, pursuant to the)
Council's resolution of)
21 March 2022 in the presence of:)



M Knowles OAM
.....
Mayor

[Signature]
.....
General Manager

**NORTHERN MIDLANDS INTERIM
PLANNING SCHEME 2013**

INSTRUMENT OF CERTIFICATION

The Northern Midlands Council resolved at its meeting of **21 March 2022** to certify that draft Amendment 04/2021 to the *Northern Midlands Interim Planning Scheme 2013* meets the requirements specified in section 32, former provisions, of the *Land Use Planning and Approvals Act 1993* (the Act). In accordance with Section 35, former provisions, of the Act the Planning Authority certifies that the draft amendment so meets those requirements.

The **COMMON SEAL** of the)
Northern Midlands Council is)
affixed hereto, pursuant to the)
Council's resolution of)
21 March 2022 in the presence of:)



M Knowles OAM
.....
Mayor

[Signature]
.....
General Manager

Northern Midlands Interim Planning Scheme 2013

Planning Permit PLN-21-0301



In accordance with Division 2 of the *Land Use and Planning Approvals Act 1993*, the Northern Midlands Council (Planning Authority) hereby grants a permit for –

ADDRESS OF LAND:

17 CHURCH STREET, CAMPBELL TOWN TAS 7210

PLN-21-0301
CT14992/1

THIS PERMIT ALLOWS FOR:

The land at 17 CHURCH STREET, CAMPBELL TOWN TAS 7210 to be developed and used for Emergency Services (Co-located Emergency Services Facility), in accordance with application PLN-21-0301 and subject to the following conditions:

1 LAYOUT NOT ALTERED

The use and development must be in accordance with the endorsed documents:


- P1 m architecture drawing DA.1 Site Plan, 08.10.2021
- P2 m architecture drawing DA.2 General Arrangement Plan, 08.10.2021
- P3 m architecture drawing DA.3 GA Plan North, 08.10.2021
- P4 m architecture drawing DA.4 GA Plan South, 08.10.2021
- P5 m architecture drawing DA.5 Elevations Sheet 1, 08.10.2021
- P6 m architecture drawing DA.6 Elevations Sheet 2, 08.10.2021
- P7 m architecture drawing DA.7 3D + Materials, 08.10.2021
- E1 – E10 rare engineering drawings COV, C000, C101, C201, C301, C401, C411, C421, C422, C701, dated 28-10-21
- S1 rare engineering letter dated 18th February 2022 and attachments.
- S2 Site Classification and Stormwater Disposal Evaluation, Geoton, 20 July 2021.

2 COUNCIL'S WORKS AND INFRASTRUCTURE CONDITIONS

2.1 Stormwater

- a) Concentrated stormwater must not be discharged into neighbouring properties
- b) Landscaping and hardstand areas must not interfere with natural stormwater run-off from neighbouring properties.
- c) Prior to the issue of any approval under the Building Act 2016 or the commencement of work on the site (whichever occurs first), amended plans must be provided showing:
 - (i) all roofs that are capable of effectively draining to the kerb via charged connections, do drain to the kerb via a charged connection; and
 - (ii) hardstand areas and roofs unable to drain to the kerb via charged connection, are drained to a pumped stormwater system with combined effective storage design to cater for the range 20 year AEP event durations and otherwise designed and installed in accordance with AS3500.3:2018.

These amended plans must be approved by Council's Works and Infrastructure Department.


Page 1 (25.03.2022)

- d) The amended plans must be accompanied by a detailed design of the pumped stormwater system prepared by a suitably qualified person which clearly shows:
- (i) that the capacity of the pumped system is to be achieved by a combination of pump capacity and wet well storage between the high and low working levels in the wet well;
 - (ii) that the combined effective storage comprising of the volume to be able to be pumped in 30 minutes plus the wet well storage shall not be less than the volume from the storm of ARI = 20 years and duration of 120 minutes
 - (iii) that the minimum wet well storage between the high and low working levels, expressed in m³, shall be 1% of the catchment area in m²; in any case it shall be not less than 3 m³;
 - (iv) that the combined effective storage design is sufficient to cater for the range of 20 year AEP events;
 - (v) that maximum pumped outflows to the kerb are 20 L/s or less
 - (vi) that the capacity of the kerb is not exceeded by pumped outflows, taking into account the existing catchment which flows to the kerb; and
 - (vii) that stormwater to be discharged to the kerb is at a maximum 45-degree angle in the direction of flow.

The detailed design must be approved by Council's Works and Infrastructure Department prior to the issue of any approval under the Building Act 2016 or the commencement of work on the site (whichever occurs first).

- e) Prior to the commencement of the use, an 'Operation and Maintenance Manual' for the pumped stormwater system must be prepared by a suitably qualified person and provided to and approved by Council's Works and Infrastructure Department. The Operation and Maintenance Manual must:

- (i) provide a detailed description of the pumped stormwater system as well as the components included in the system covered in the manual;
- (ii) provide a comprehensive detailed explanation of all major operating procedures to ensure that the pumped system works as designed;
- (iii) detail the preventive and corrective maintenance programs that must be adopted to ensure the system is in a proper working order, including maintenance schedules, procedures and test requirements; and
- (iv) include 'as constructed' drawings of the pump and storage system as an annexure to the Operation and Maintenance Manual.

- f) A plumbing permit is required prior to commencing any plumbing or civil works within the property.

2.2 Access


- a) A concrete driveway crossover and apron must be constructed for each dwelling from the edge of the road to the property boundary in accordance with Council standards.
- b) Access works must not commence until an application for vehicular crossing has been approved by Council.
- c) All works must be done in accordance with Council Standard Drawing TSD-R09 and to the satisfaction of the Works Manager.

2.3 Municipal standards & approvals

Unless otherwise specified within a condition, all works must comply with the Municipal Standards including specifications and standard drawings. All works must be constructed to the satisfaction of Council. Where works are required to be designed prior to construction, such designs and specifications must be approved by Council prior to commencement of any *in situ* works.

2.4 Works in Council road reserve

- a) Works must not be undertaken within the public road reserve, including crossovers, driveways or kerb and guttering, without prior approval for the works by the Works Manager.
- b) Twenty-four (24) hours notice must be given to the Works & Infrastructure Department to inspect works within road reserve, and before placement of concrete or seal. Failure to do so may result in rejection of the vehicular access or other works and its reconstruction.


Page 2 (25.03.2022)

2.5 Pollutants

- a) The developer/property owner must ensure that pollutants such as mud, silt or chemicals are not released from the site.
- b) Prior to the commencement of development authorised by this permit the developer/property owner must install all necessary silt fences and cut-off drains to prevent soil, gravel and other debris from escaping the site. Material or debris must not be transported onto the road reserve (including the nature strip, footpath and road pavement). Any material that is deposited on the road reserve must be removed by the developer/property owner. Should Council be required to clean or carry out works on any of their infrastructure as a result of pollutants being released from the site the cost of these works may be charged to the developer/property owner.

2.6 Nature strips

Any new nature strips, or areas of nature strip that are disturbed during construction, must be topped with 100mm of good quality topsoil and sown with grass. Grass must be established and free of weeds prior to Council accepting the development.

2.7 Part 5 Agreement

- (a) Prior to the commencement of the use, the landowner must enter into an agreement under Part 5 of the *Land Use Planning and Approvals Act 1993* with the Northern Midlands Council.
- (b) The agreement referred to in condition 6(a) will be in such form as Council may require at its discretion, and must include the following:
 - (i) that the landowner acknowledges that the property relies on a pumped stormwater system and that the purpose of the pumped stormwater system is to service and control the concentrated discharge of stormwater from any structures on the property which are not connected by gravity or charged pipes to Council's stormwater system.
 - (ii) that the landowner is responsible for the ongoing operation and maintenance of the pump and stormwater storage system;
 - (iii) that the landowner must operate and maintain the pumped stormwater system in accordance with the Operation and Maintenance Manual following its submission to and approval by the Council's Works and Infrastructure Department as required by condition 3.1(c) of this permit;
 - (iv) annex a copy of the approved Operation and Maintenance Manual as required by condition 3.1(c) of this permit to the Agreement.
 - (v) that the landowner must provide a report to the Council on or before 30 June every 12 month period, from a suitably qualified person confirming that the pumped stormwater system is in working order and that the maintenance procedures and maintenance schedules described within the Operation and Maintenance Manual have been complied with.
 - (vi) that the landowner must rectify any nuisance caused by the concentrated discharge of stormwater from the pumped stormwater system, to Council's requirements and at the owner's expense, within 14 days of Council giving notice of the requirement to do so.
 - (vii) that the failure by the landowner to comply with a term or condition set out in the agreement allows the Council to undertake that work, with the costs of doing so to be a debt due and payable by the landowner to the Council.

The landowner is responsible for all Council and Land Titles Office costs, fees and charges associated with the preparation and lodgement of the Part 5 agreement.


3 TASWATER CONDITIONS

Sewer and water services must be provided in accordance with TasWater's Submission to Planning Authority Notice (reference number TWDA 2021/01949-NMC) attached as Appendix A.

4 LIGHTING

Outdoor lighting must be designed, baffled and located to prevent any adverse effect on adjoining land.

Draft Only


Page 3 (25.03.2022)

5 CARPARKING

Prior to commencement of the use, areas set aside for parked vehicles and access lanes must be constructed in accordance with the endorsed plans and maintained for the duration of the use.

6 LANDSCAPING

6.1 Prior to the commencement of the use, landscaping works as shown on the endorsed plans must be completed.

6.2 The landscaping shown on the endorsed plans must be maintained including the replacement of any dead, diseased or damaged plants.



Des Jennings

GENERAL MANAGER

Date of Council Decision

21 March 2022

Date of Permit

25 March 2022

Draft Only

Notes:

- A This permit has no force or effect until such time as the associated Planning Scheme Amendment is approved by the Tasmanian Planning Commission.
- B Attention is directed to Section 39 of the Land Use Planning and Approvals Act 1993: "... representations in relation to that draft amendment may be submitted to the authority by any person before the expiration of the exhibition period referred to in section 38(1)(a) ... 28 days (or a longer period agreed to by the planning authority and the Commission) from the date, specified in the notice, on which the public exhibition of those documents is to begin." (The authority is the Northern Midlands Council.)

P1



image credit : thelist.tas.gov.au . accessed 16.03.21

NORTHERN MIDLANDS COUNCIL
This document forms part of
Draft Planning Permit PLN21-0301
issued on 25-Mar-2022
(P1-P7, E1-E10, S1-S2, SPAN)

Property Details

Lot Size 3300m2
Fully Enclosed Space 590m2
Address: 17 Church St Campbell Town TAS 7210
PID: 2036373
Title Reference: 14992/1
Screening fence 1500h & Landscape Screening
Vehicle separation 1000h

Fully Enclosed Space

- A Meeting room, kitchen, accessible amenities, stores & outdoor breakout
- B Appliance bays, drive through, 3 x Item 8 Vehicles [8.1m x 2.9m]
- C Operations office, amenities and PPC

Site Development

- 1 Meeting parking bays 5.4 x 2.5
10 x standard
1 x DDA
- 2 Operations parking bays 5.4 x 2.5
7 x standard
- 3 Appliance + overflow outdoor parking
4 x Item 8 vehicles for hot day preparation
- 4 2 x 15000lt water tank
- 5 Wash Bay & Wash Bay Store
- 6 Future Battery Store

Development

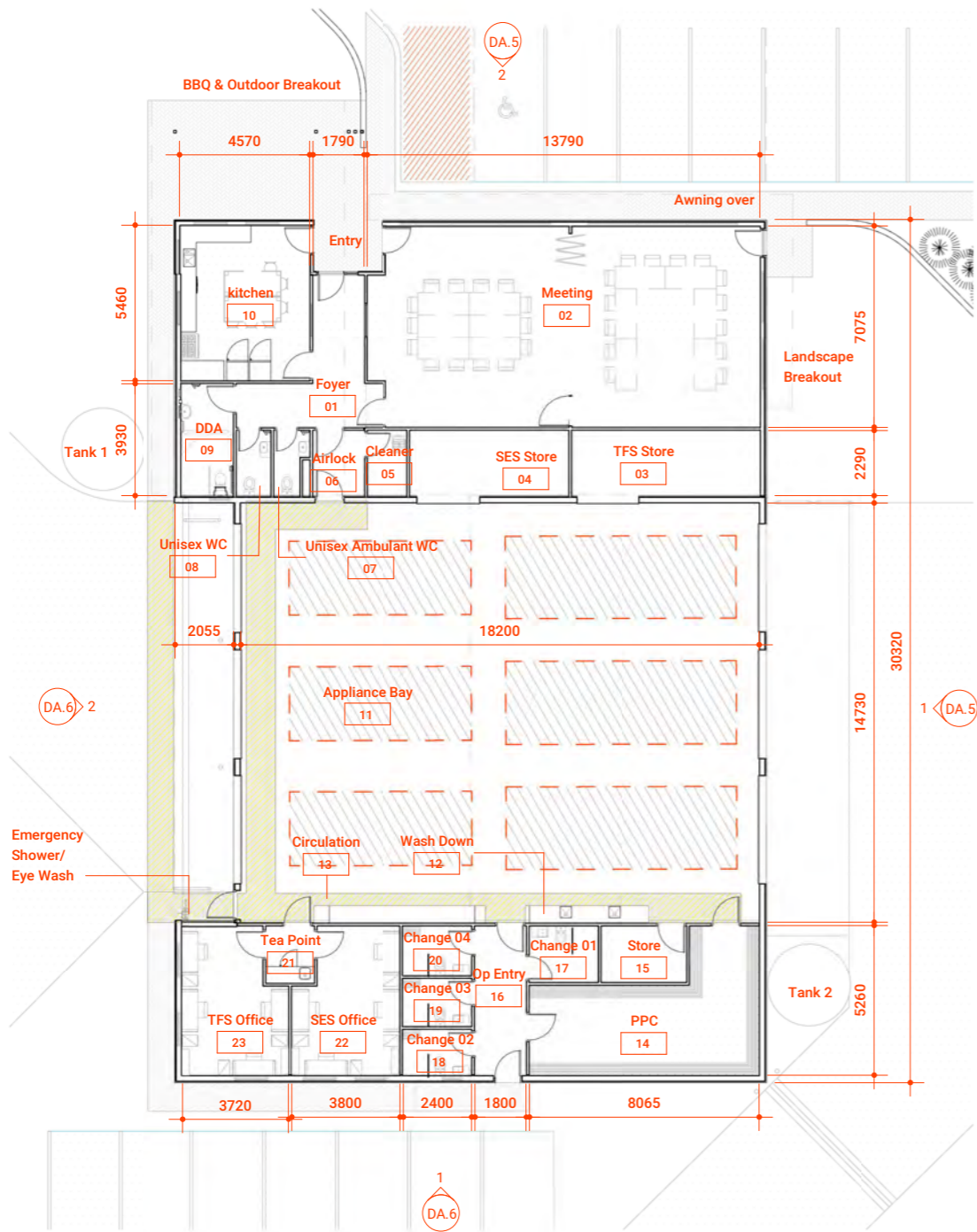
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DA.1 Site Plan

Campbell Town TFS & SES

21.031 DPFEM 17 Church St Campbell Town
Plot Date: 9/10/2021 9:54:19 AM
C Development MS MS 08.10.21
No Revision Drawn Checked Date
Cad File No: \\MacHome\Desktop\m | arkitecture\Clients\21.031 - DPFEM Campbell Town TFS & SES\103-Schematic Design\103.1 Measured Drawing - Moved to BIM 360\21.031 - DPFEM Campbell Town TFS & SES B.1.rvt
A3 1 : 500



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(P1-P7, E1-E10, S1-S2, SPAN)

P2

Room Schedule . Internal

Number	Name	Area
01	Foyer	14.7 m²
02	Meeting	95.3 m²
03	TFS Store	15.1 m²
04	SES Store	12.7 m²
05	Cleaner	3.2 m²
06	Airlock	4.1 m²
07	Unisex Ambulant WC	2.4 m²
08	Unisex WC	2.7 m²
09	DDA	7.2 m²
10	kitchen	24.6 m²
11	Appliance Bay	249.2 m²
12	Wash Down	8.4 m²
13	Circulation	10.5 m²
14	PPC	30.6 m²
15	Store	6.0 m²
16	Op Entry	9.5 m²
17	Change 01	4.8 m²
18	Change 02	3.9 m²
19	Change 03	4.0 m²
20	Change 04	4.2 m²
21	Tea Point	3.4 m²
22	SES Office	18.1 m²
23	TFS Office	17.6 m²
Grand total		552.1 m²

DA.2 General Arrangement Plan

Campbell Town TFS & SES

21.031DPFEM 17 Church St Campbell Town

C Development

No Revision

MS MS 08.10.21

Drawn Checked Date

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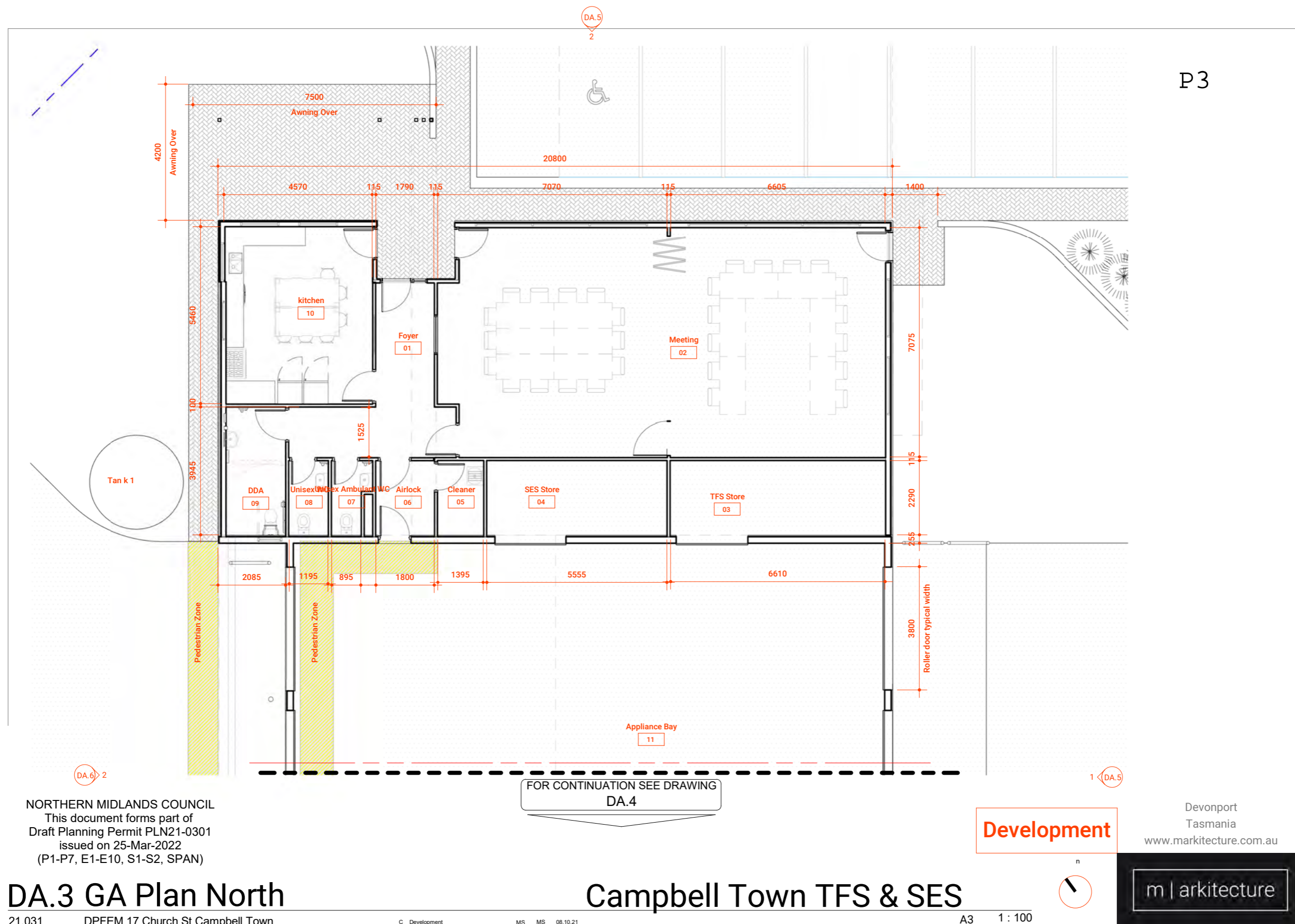
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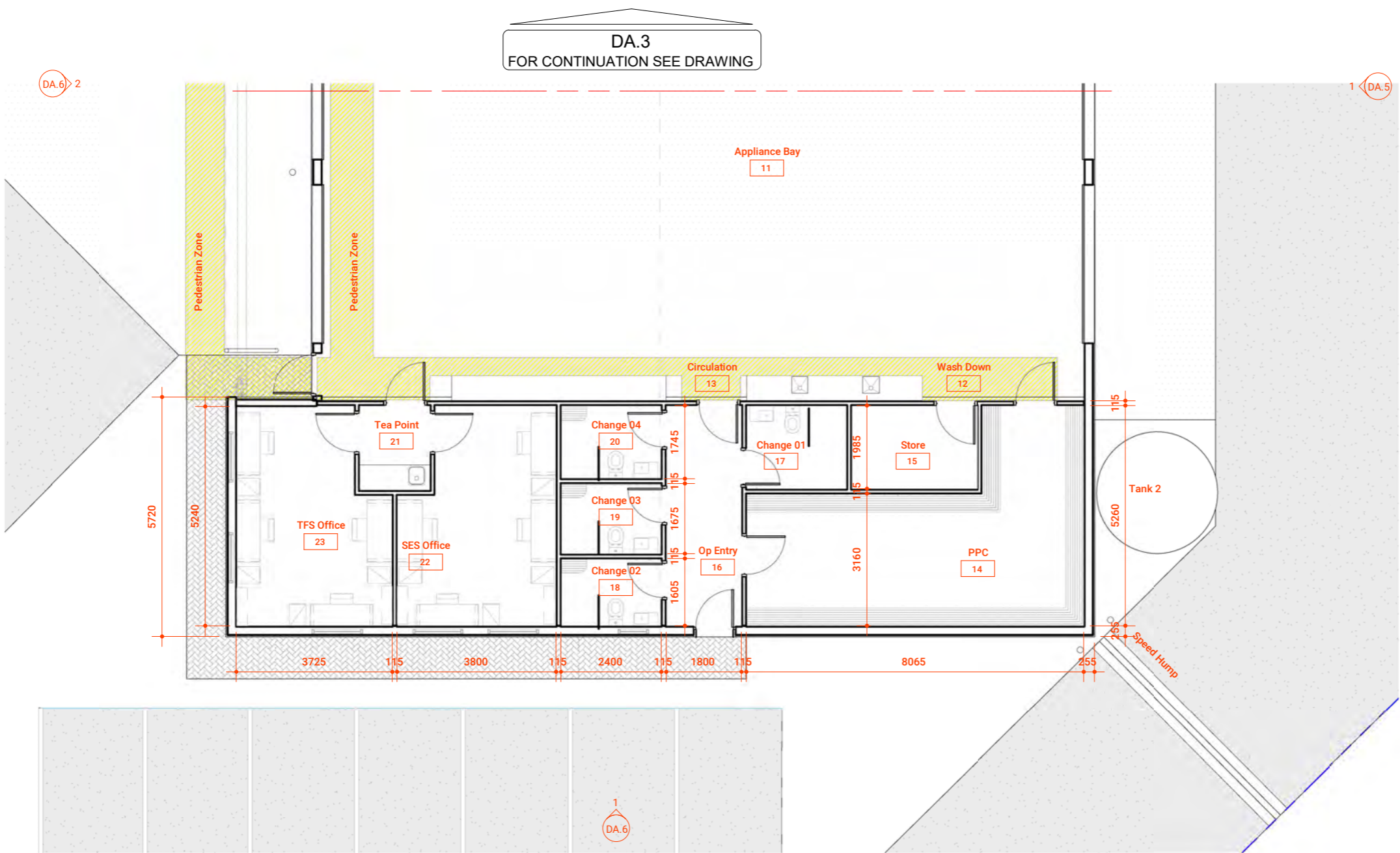
Development

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P4



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DA.4 GA Plan South

21.031 DPFEM 17 Church St Campbell Town
Plot Date: 9/10/2021 9:54:52 AM

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Campbell Town TFS & SES

A3 1 : 100

Development

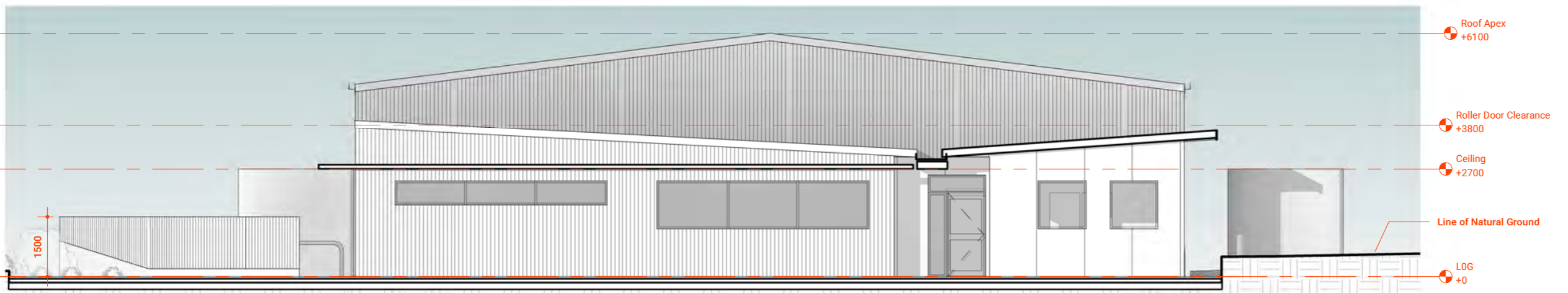
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P5



1 North East
SCALE: 1 : 100



2 North West
SCALE: 1 : 100

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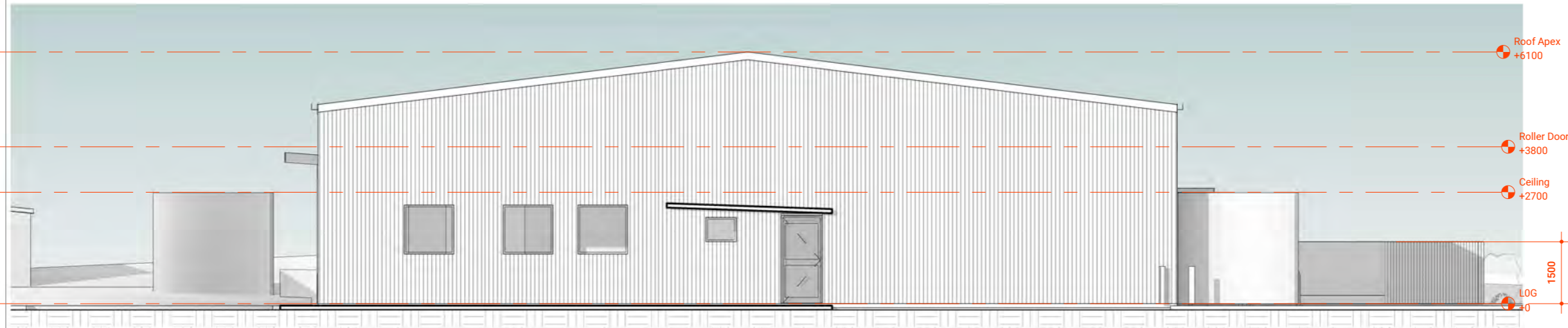
DA.5 Elevations Sheet 1

Campbell Town TFS & SES

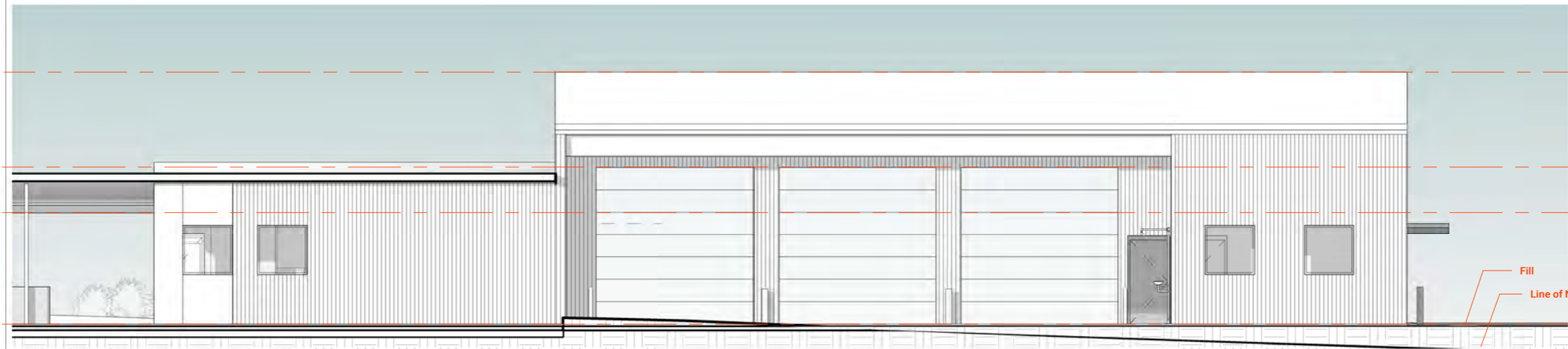


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A3 1 : 100

P6



1 South East
SCALE: 1 : 100



2 South West
SCALE: 1 : 100

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DA.6 Elevations Sheet 2

Campbell Town TFS & SES

21.031 DPFEM 17 Church St Campbell Town
Plot Date: 9/10/2021 9:55:15 AM

C Development MS MS 08.10.21 A3 1 : 100
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P7

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(P1-P7, E1-E10, S1-S2, SPAN)

1

3D Visualisation West

SCALE: NA



RF01
Location: Roof Sheet
Material: Trimclad Roofing
Colour: Shale Grey



FL01
Location: Trims & Ancillary
Material: Powdercoated
Colour: Wallaby



CD01
Location: Cladding
Material: Trimclad Colorbond
Colour: Shale Grey



CD02
Location: Cladding
Material: Trimclad Colorbond
Colour: Wallaby



CD03
Location: Cladding Feature
Material: Cement Sheet
Colour: Painted Wallaby



CD04
Location: Cladding Entrance
Material: Aluminium Sheet
Colour: Red/Orange Feature



GS01
Location: Door/Window Frames
Material: Aluminium
Colour: Monument



LF01
Location: Pavement + Screen
Material: Concrete in situ
Colour: Natural, broomed finish



LF02
Location: Screen Fencing
Material: Hardwood timber oiled
Colour: Silver Top Ash or Similar

2

3D Visualisation North North East

SCALE: NA

Speed Hump
Compacted gravel drive

FL01

Concrete Apron to front of Appliance Bay
Concrete Path
Compacted Gravel Parking

CD01

LF02

CD02

RF01

CD02

CD01

GS01 Typical

FL01

CD04

RF01

CD03

FL01

LF02

LF01

Signage - Level ground 1200h x 3000w
"Tasmanian Fire Service & State Emergency Service
Campbell Town"

Development

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DA.7 3D + Materials

Campbell Town TFS & SES

21.031

DPFEM 17 Church St Campbell Town

Plot Date: 9/10/2021 9:55:40 AM

C Development
No Revision

MS MS 08.10.21
Drawn Checked Date

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A3 1 : 150

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issued on 25-Mar-2022
(P1-P7, E1-E10, S1-S2, SPAN)

CLIENT:
DPFEM

E1

PROJECT:
17 CHURCH STREET, DRIVEWAY ACCESS

ADDRESS:
17 CHURCH STREET, CAMPBELL TOWN

PROJECT No:
210073 - DA

STATUS:
CONTROLLED DOCUMENT

ISSUED FOR / DESCRIPTION:
DEVELOPMENT APPROVAL

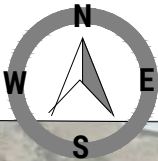
DRAWINGS:

- COV - COVER SHEET
- C000 - CIVIL NOTES
- C101 - SITE AND LOCATION PLAN
- C201 - DEMOLITION PLAN
- C301 - EROSION CONTROL PLAN
- C401 - CIVIL WORKS PLAN
- C411 - CIVIL SETOUT PLAN
- C421 - TURNING OUT PLAN
- C422 - TURNING IN PLAN
- C701 - CIVIL SECTIONS AND DETAILS

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						DESIGN CHK: RJJ				
						DRAWN BY: MRP				
						DRAFT CHK: KL				
0	DEVELOPMENTAL APPROVAL	KL	28-10-21	DO NOT SCALE - IF IN DOUBT, ASK THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS PREPARED. © RARE INNOVATION PTY LTD. ABN 51 619 598 257		APPROVED: R.JESSON	ACRED. No: CC5848I			SCALE: - SHEET SIZE: A3 DWGs IN SET: -
REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:	APPROVED: R.JESSON	ACRED. No: CC5848I	DATE: 28-10-21			PROJECT No: 210073	DWG No: COV REV: 0

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E3



LOCALITY PLAN
NTS



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E 4



DEMOLITION PLAN

SCALE 1:200

DEMOLITION NOTES

- 1. PRIOR TO COMMENCING DEMOLITION AND SITE WORKS, THE CONTRACTOR IS TO ARRANGE AND PAY FOR THE ON SITE MARKING AND CONFIRMATION OF DEPTH, OF SERVICE LOCATIONS FOR ALL UNDERGROUND SERVICES INCLUDING COMMUNICATIONS, TASNETWORKS, POWERCO AND COUNCIL SERVICES (ie: WATER, STORMWATER AND SEWER) IN THE AREA OF NEW WORKS. LOCATION TO BE CONFIRMED USING CABLE LOCATORS AND HAND DIGGING METHODS. PRIOR TO ANY WORKS ON SITE, ANY CLASHES WITH DESIGNED SERVICES ON FOLLOWING DRAWINGS ARE TO BE REPORTED TO DESIGN ENGINEER FOR DIRECTION.
- 2. REFER DRAWINGS FOR SET OUT DIMENSIONS & COORDINATE ALL LEVELS, CONTRACTOR TO REFER ENGINEER FOR ANY DISCREPANCIES / CLASHES.
- 3. CAP & TERMINATE & REMOVE REDUNDANT DISUSED DRAINAGE SERVICES TO SATISFACTION OF ENGINEER & LOCAL AUTHORITIES
- 4. INSTALL SILT FENCES & TRAPS TO PREVENT SEDIMENTS & POLLUTANTS ENTERING STORM WATER SYSTEM OR NATURAL DRAINAGE LINES
- 5. STOCK PILING OF SOILS OR MATERIALS AFFECTED BY WATER TO BE STORED CLEAR OF ANY DRAINAGE PATH
- 6. CLEAN SITE VEHICLES BEFORE EXITING SITE
- 7. DISPOSE OF EXCAVATED MATERIAL TO LICENSED WASTE FACILITY OR APPROVED LAND FILL SITE
- 8. TRENCHES WHERE SERVICES ARE REMOVED ARE TO BE FILLED WITH AN APPROVED COMPACTED MATERIAL & TO ENGINEERS COMPACTION SPECIFICATIONS. MATCH & MAKE GOOD EXISTING SURFACES TO MATCH EXISTING SURROUNDINGS.
- 9. LOCATE AND PROTECT EXISTING OVERHEAD POWER LINE DURING WORKS

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EROSION AND SEDIMENT CONTROL NOTES

1. ALL RUNOFF AND SEDIMENT CONTROL STRUCTURES TO BE INSPECTED EACH WORKING DAY MAINTAINED IN A FUNCTIONING CONDITION
2. ALL VEGETATION OUTSIDE OF THE BUILDING ENVELOPE TO BE RETAINED
3. REFER 'SOIL AND WATER' NOTES IN CIVIL NOTES FOR ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES
4. EROSION AND SEDIMENT CONTROL MEASURES TO BE PLACED IN ACCORDANCE WITH NRM GUIDELINES & DETAILS SUPPLIED IN THESE DRAWINGS.

EROSION CONTROL PLAN

SCALE 1:200

LEGEND

----- EROSION CONTROL BARRIER

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0	DEVELOPMENTAL APPROVAL	KL	28-10-21	APPROVED: R.JESSON	ACRED. No: CC5848I	DATE: 28-10-21			
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HOTMIX - TRAFFICABLE
MATCH EXISTING

FUTURE DRIVEWAY BY OTHERS

LEGEND

ME	MATCH EXISTING
SAW	SAWCUT
GP	GUIDE POST TO LGAT STANDARDS
VEE	VEE DRAIN - REFER DETAIL
ePP	EXISTING POWER POLE

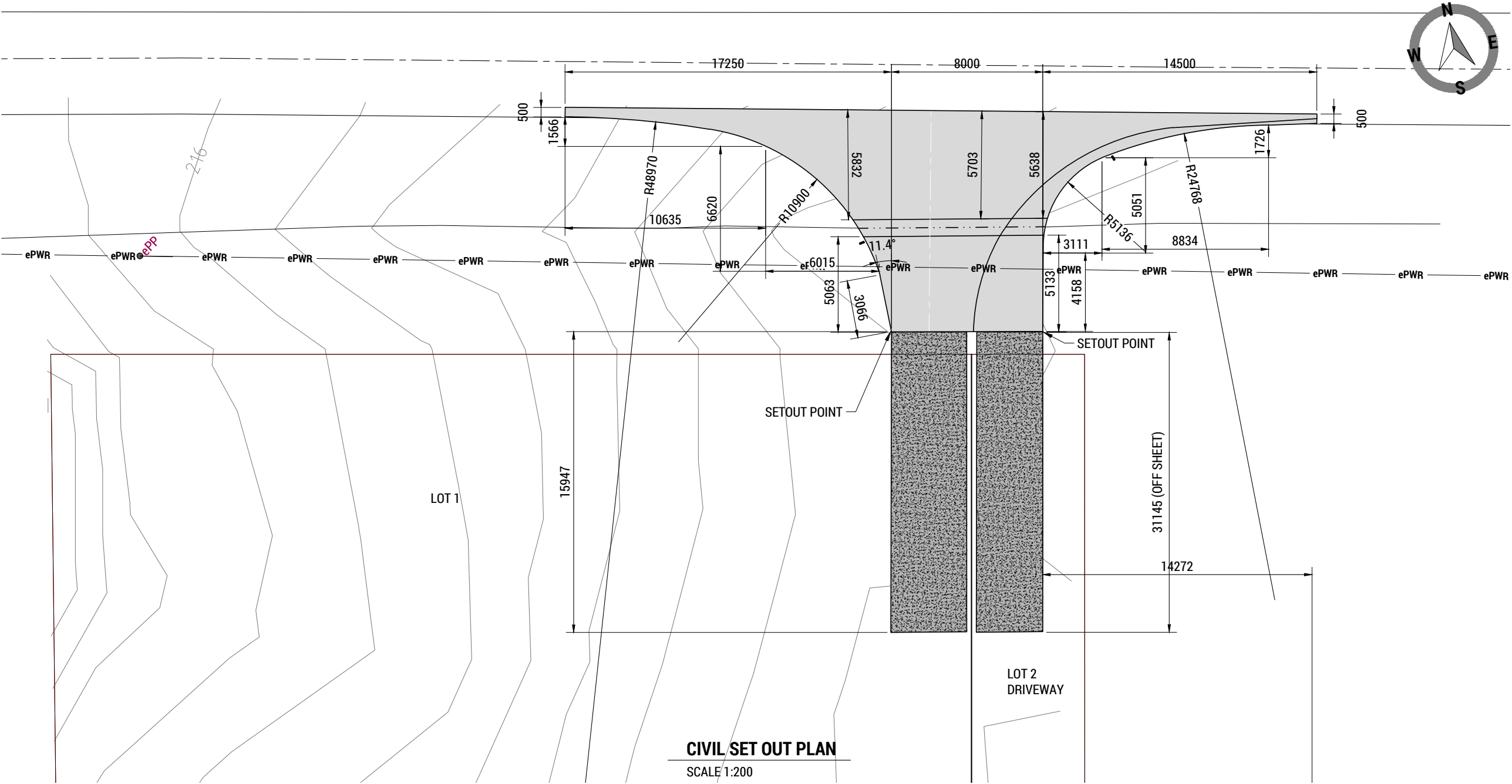
CIVIL WORKS PLAN

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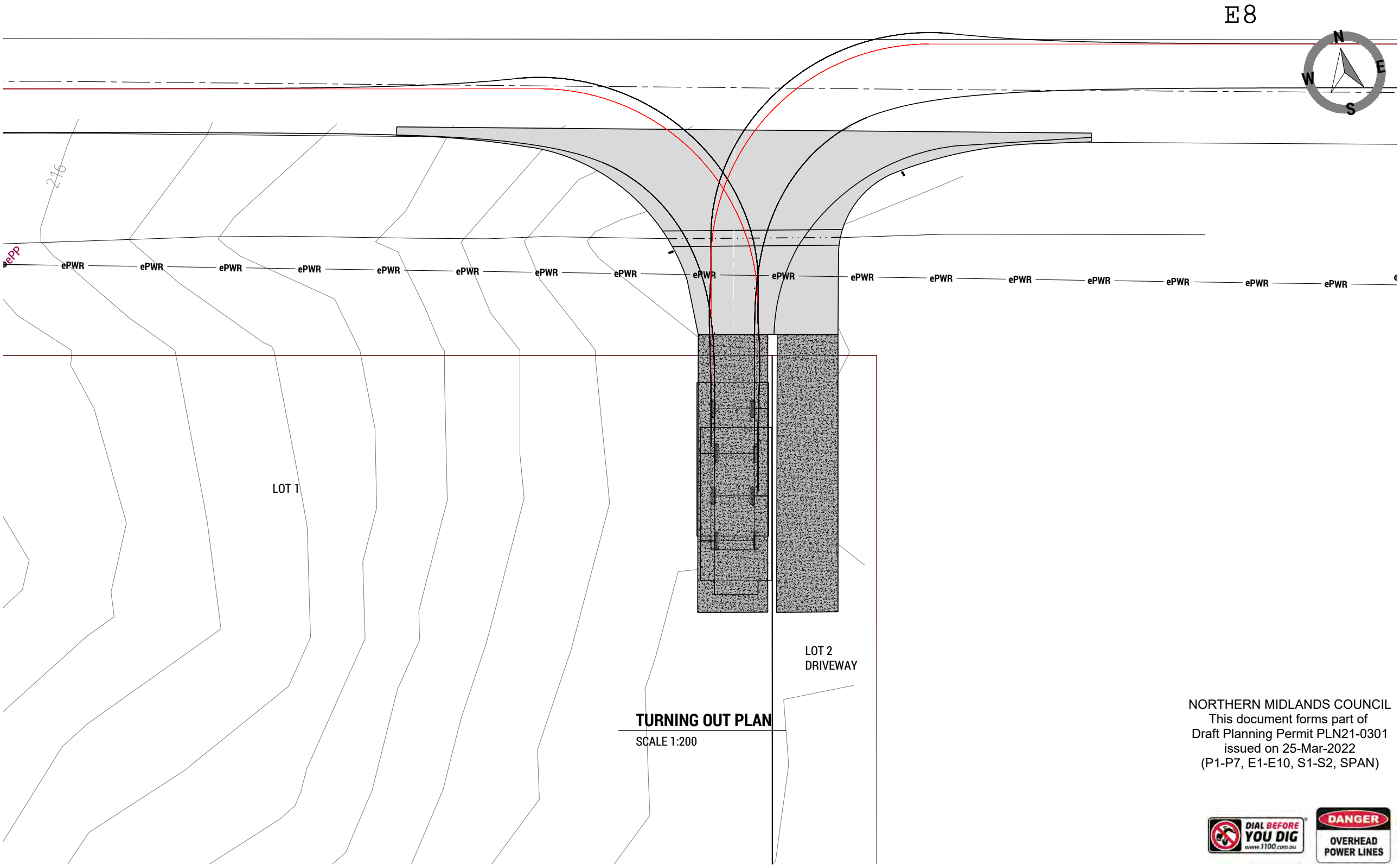
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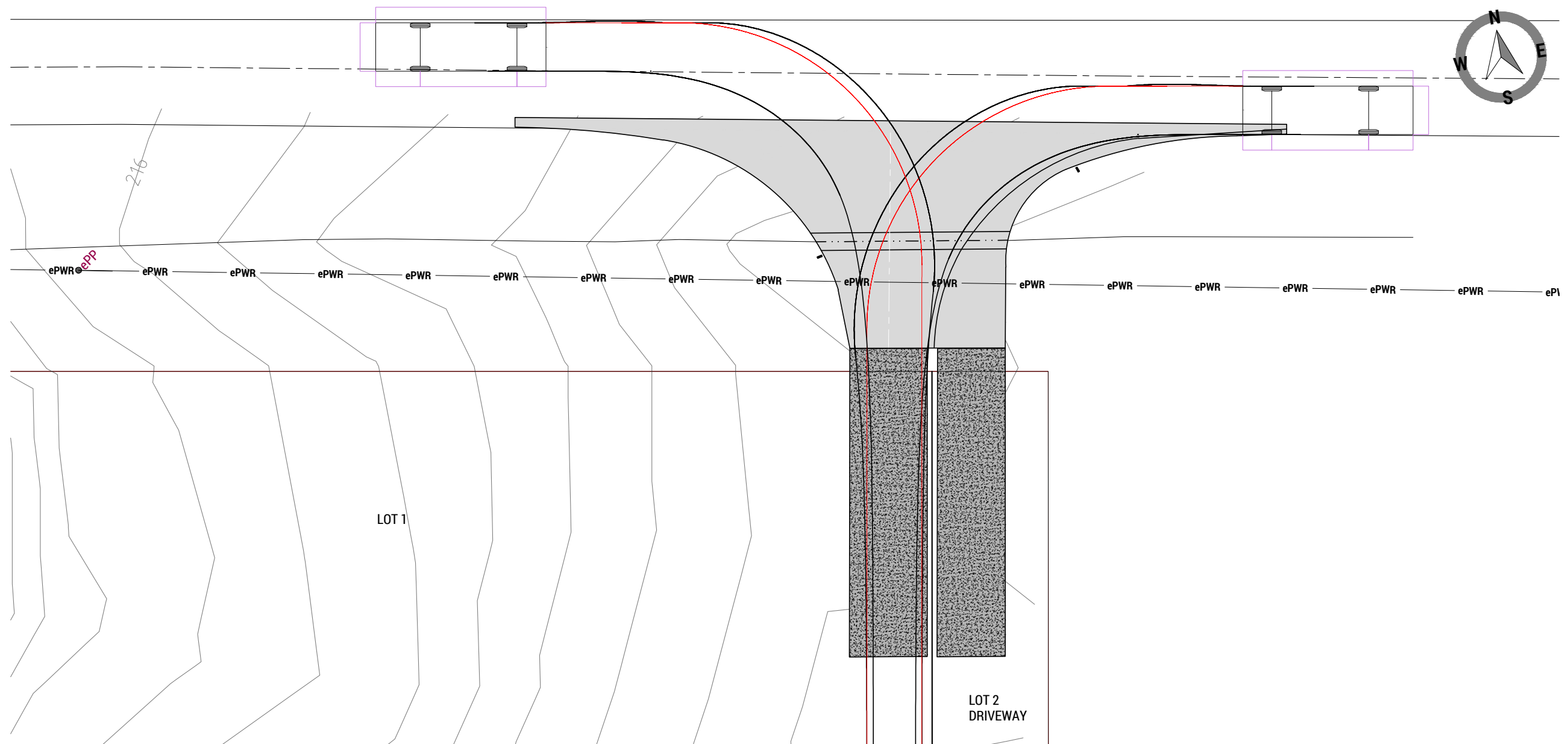
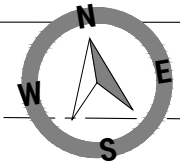
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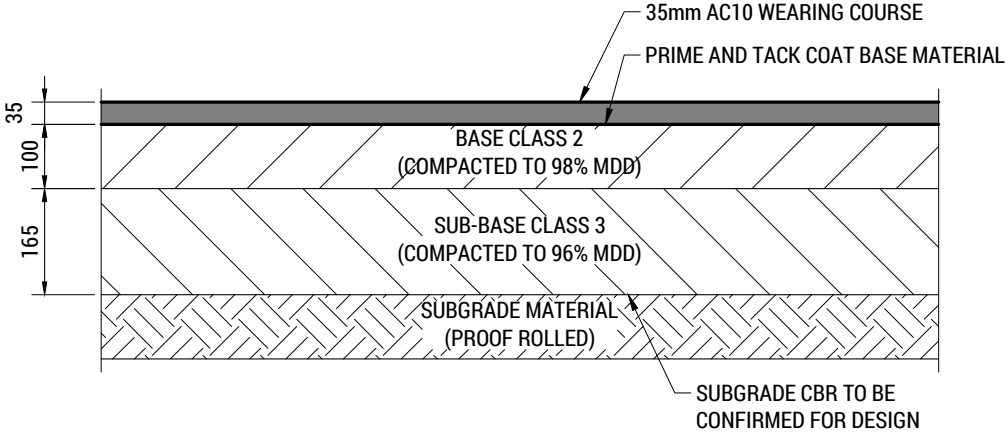
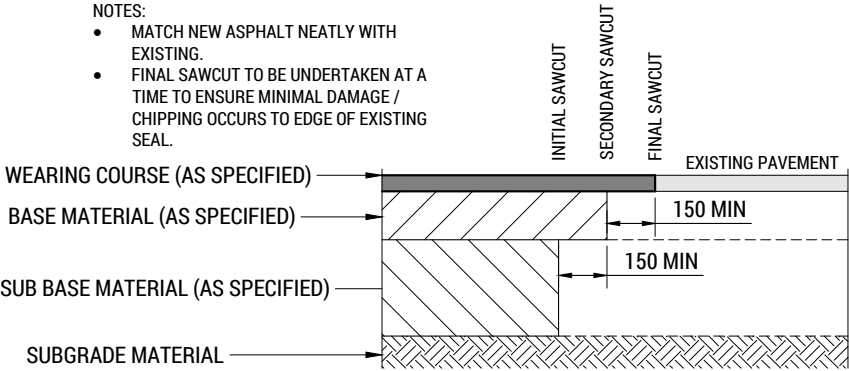


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[illegible]

E10



D01 NEW TO EXISTING HOT MIX TRANSITION

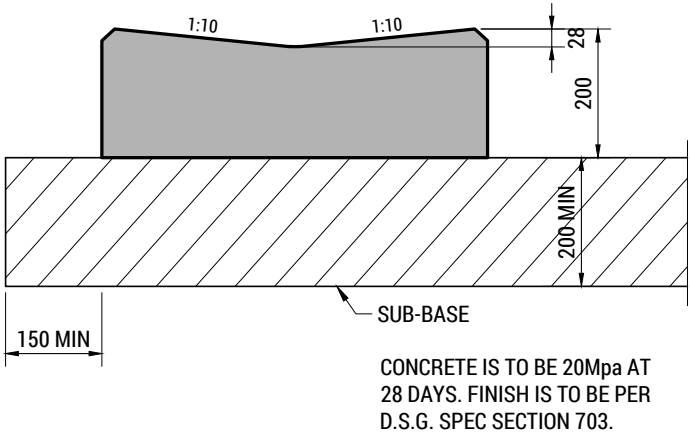
SCALE 1:20

MIN CBR 4% (CONTRACTOR TO CONFIRM ONSITE)

D02 HOT MIX PAVEMENT - ROADWAYS - PAV-A

SCALE 1:10

MIN CBR 4% (CONTRACTOR TO CONFIRM ONSITE)



D03 TYPE VEE DRAIN

SCALE 1:10

REFER IPWEA STD DWG TSD-R14-v3 FOR APPROVED KERB & CHANNEL PROFILES & DIMENSIONS

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S1

Of beauty rich and rare.

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rare.

Level 1a, 10-14 Paterson Street
Launceston TAS 7250

P. 6388 9200

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Our Ref: 210073

18th February 2022

Paul Godier
Northern Midlands Council
PO Box 156
Longford TAS 7301

ATT: PLANNING DEPARTMENT

Dear Paul

RESPONSE TO RFI PLN21-0301, 17 CHURCH STREET, CAMPBELL TOWN

Rare Innovation have been engaged by M|Arkitecture to provide civil and structural engineering services for the development at the above address. Please refer this letter and its attachments addressing the request for information.

Attached to this letter are the following documents

- A. Concept stormwater plan
- B. Upper Catchment (Catchment 1) stormwater infiltration calculations
- C. Lower Catchment (Catchment 2) stormwater infiltration and detention calculations
- D. Concept Site Levels

Planning Permit PLN-21-0138 states the stormwater disposal requirements as per the below.

2.2 Stormwater absorption drain – Lot 1

The owner of Lot 1 must enter in to, and comply with, all conditions of an agreement under Part 5 of the Land Use Planning and Approvals Act 1993 to provide for the following:

- a. A stormwater absorption drain must be constructed prior to any building works on Lot 1.*
- b. The absorption drain must be designed by a certified hydraulic engineer to cater for all hardstand areas that cannot be drained to Church Street.*
- c. Plans and calculations from a certified hydraulic engineer must be submitted to the General Manager for assessment.*
- d. Construction of the drain must not commence until the plans are approved.*
- e. The drain shall be sized taking into account the saturated permeability of the soil.*
- f. The drain shall be sized with sufficient storage capacity to dispose of the full range of 5% AEP storms, with an additional safety factor volume 50% above the calculated need. Absorption drain calculations shall be undertaken in accordance with the procedures detailed in Water Sensitive Urban Design – Engineering Procedures for Stormwater Management in Tasmania (Derwent Estuary Program, 2012).*
- g. The drain shall be located to command the stormwater discharge from all areas of the site.*
- h. The drain shall be installed along the contour at a minimum of 6.0 metres clear of boundaries down slope of any structures.*
- i. The installation shall be located to ensure there is no concentrated discharge from any structures.*
- j. A system operation / maintenance manual is to be provided and approved by the Engineering Services Manager.*
- k. The system shall be marked on an "As Constructed" plan to Council requirements with the*

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- plan provided to Council.*
- l. The system is to be installed prior to site occupancy, operated and maintained by the owner in conformity with the manufacturer or design engineer's instruction manual and any additional conditions as required by Council. Any nuisance / concentrated discharge from the facility shall be rectified by the owner to Council's requirements and at the owner's expense within 14 days' notice of the nuisance.*

Stormwater Disposal – Planning Permit Compliance

- a. A stormwater absorption drain is part of this development and will be in place prior to the construction of the impervious areas.
- b. The design will be certified by a company director.
- c. Sketch plans and detailed calculations are attached. Detailed plans will be submitted as part of the Building Approval documents
- d. The construction of the drain will not commence until the plans are approved.
- e. The drain has taken into account the saturation permeability of the soil. This is certified by Geoton, report GL21409Ab.
- f. The drainage design has in fact got a factor of safety of 50% of the 5% AEP storm for the absorption bed that can overflow to the street. The drainage design has a factor of safety 50% on absorption storage for the bed that can not flow over the street.
- g. All the stormwater will be captured by the system.
- h. The drainage is not possible to be located 6m from the boundary. As such a tech dry retaining wall and onsite detention pond has need installed to ensure no flow will cross the property boundary.
- i. No concentrated discharge from any structure will be achieved.
- j. A manual can be provided
- k. The plumber will submit "As Constructed" plans
- l. The property owner will operate, maintain and repair the system.

Stormwater Disposal Design

In response to your request for further information this letter has been prepared to verify the site stormwater can be disposed of either through infiltration into the soil within the boundary lines or through disposal to the street.

The site is split into two catchments, the upper catchment that includes the buildings and the upper carpark, and the lower catchment that includes the driveways and lower carparks.

Catchment 1

The upper catchment will utilise high level stormwater pipes to ensure the roof drainage falls to the upper infiltration bed.

Site Area = 1434 m²

Impervious Area = 1200 m²

Catchment Infiltration Bed Area = 75 m²

Infiltration Rate = 2.60 L/s

5% AEP Storage required = 9.65 m³

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5% AEP Storage with 50% FoS = 14.48 m³

Infiltration Bed Storage provided = 15 m³

An overland flow path is provided from the infiltration bed to the street swale drain. This will ensure any flows greater than 5% AEP will not flow on to a neighbouring property.

Catchment 2

The lower catchment falls to vee drains that protect the property boundary. These all fall to the low point on the site. This pit then feeds into a secondary infiltration bed. The lower catchment is designed for the 1% AEP storm so that this site is not allowing stormwater to overflow onto neighbouring properties.

Site Area = 1869 m²

Impervious Area = 1869 m²

Catchment Infiltration Bed Area = 60.5 m²

Infiltration Rate = 2.10 L/s

1% AEP Storage required = 37.34 m³

1% AEP Storage with 50% FoS = 56.01 m³

Infiltration Bed Storage provided = 12.1 m³

Above Ground Pond storage provided = 45.4 m³

Total storage provided = 57.5 m³

The infiltration bed is protected from flooding by a flow rate restricting orifice that ensures the flow rate from the above ground pond is restricted to less than the infiltration rate of the ground. The required orifice size is 39mm diameter.

Stormwater Summary

The upper catchment is designed to infiltrate the 5% AEP storm with the 1% AEP storm overflowing to the street.

The lower catchment is designed to detain and infiltrate the 1% AEP storm so that there is not concentration of stormwater crossing into neighbouring boundaries.

The only condition of the planning permit that can not be achieved is point h. above. This has been mitigated by the design of a Tech Dry blockwork wall that will provide a bund against the property boundaries and any nuisance flows.

The use of stormwater tanks for water reuse can be added to this concept without any complications.

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Site Fill

The site required filling to address two issues.

Issue one is the stormwater disposal discussed above and issue two is to maintain safe driveways for access and a mostly level building.

Refer attachments D and E.

Should you have any further queries please do not hesitate to contact us.

Yours faithfully,

Matthew Peart
Senior Structural Engineer // Buildings Division Manager
B.E.Hons // M.E.M // MIEAust

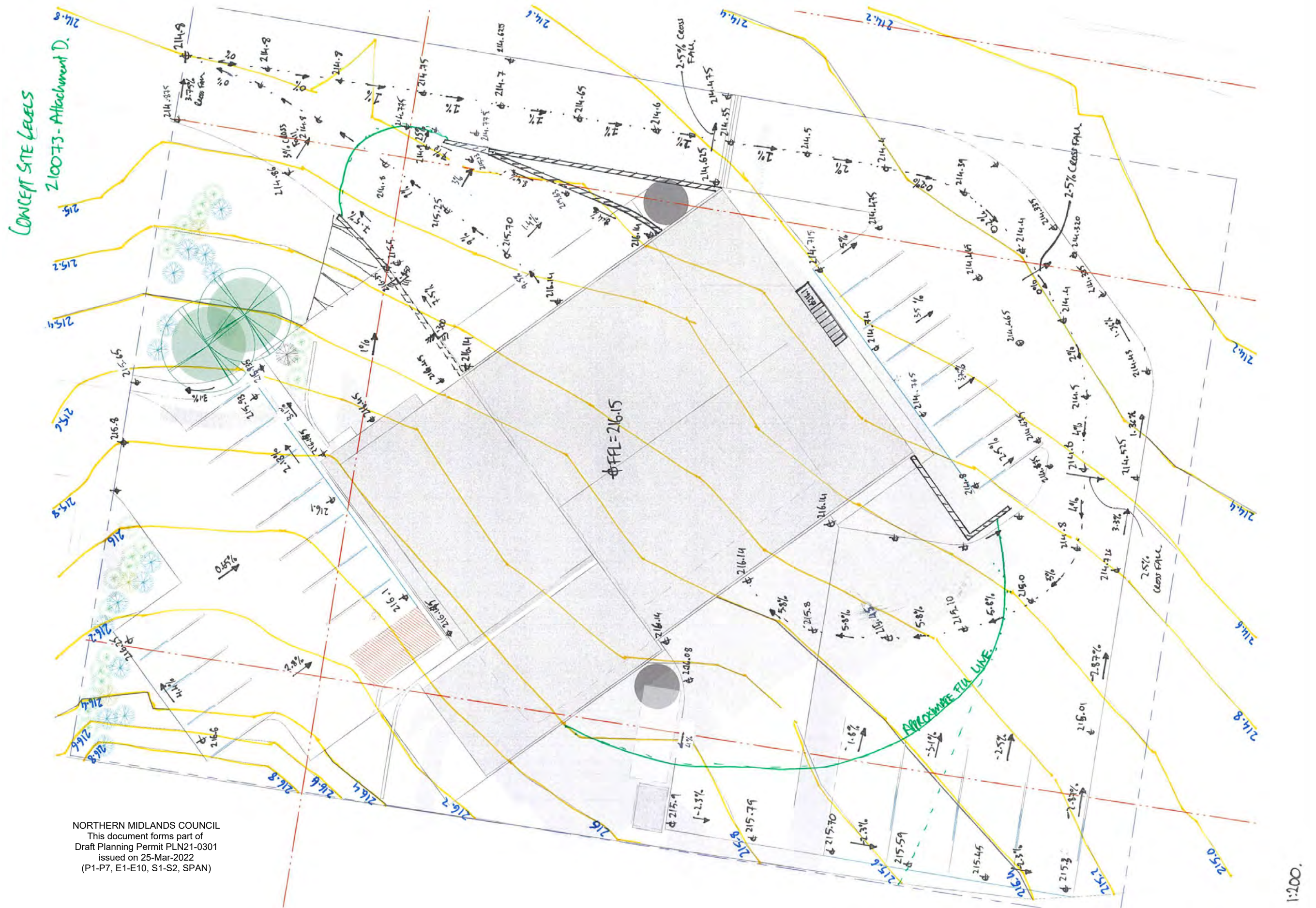
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22-24 Paterson St, Launceston, TAS, 7250
p. (03) 6326 9805, f. (03) 6326 9607
www.rarein.com.au

Appendix A - Stormwater Infiltration and Detention Calculations - Catchment 1

NOTE: Revised cells highlighted

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Site Area	1434	m ²
Predevelopment Impervious Site Area	0	m ²
Postdevelopment Impervious Site Area	1200	m ²

Permissible Site Discharge Conditions

Rational Method

Q	L/s	Peak Flow
C		Rational Method Runoff Coefficient
I	mm/hr	Average Rainfall Intensity
A	m ²	Catchment Area
F	1/3600	Conversion Factor

$$Q = F \cdot C \cdot I \cdot A$$

Site Location Storm Rainfall

Time Interval		Rain Fall Intensity		¹⁰ I ₁	10%, 1Hr	mm/hr	
		20 Year	100 Year				
Minutes	Hours	5%	1%				
		mm/hr	mm/hr				
5	1	82	111				
10		62.6	87.8				
20		43.8	61.4				
30		34.4	47.4				
60		22	29.2				
120		2	14	17.9			
180		3	10.7	13.6			
360		6	6.96	8.83			
720	12	4.55	5.9				
1440	24	2.92	3.89				
2880	48	1.79	2.41				
4320	72	1.3	1.74				

$$C_{10} = 0.9 \times f + C_{10}^1 \times (1 - f) \quad C_{10}^1 = 0.1 + 0.0133 \times (I_{10}^1 - 25)$$

C₁₀ Lookup Table

f	25	30	35	40	45	50	55	60	65	70
0	0.1	0.1665	0.233	0.2995	0.366	0.4325	0.499	0.5655	0.632	0.6985
0.05	0.14	0.203175	0.26635	0.329525	0.3927	0.455875	0.51905	0.582225	0.6454	0.708575
0.1	0.18	0.23985	0.2997	0.35955	0.4194	0.47925	0.5391	0.59895	0.6588	0.71865
0.15	0.22	0.276525	0.33305	0.389575	0.4461	0.502625	0.55915	0.615675	0.6722	0.728725
0.2	0.26	0.3132	0.3664	0.4196	0.4728	0.526	0.5792	0.6324	0.6856	0.7388
0.25	0.3	0.349875	0.39975	0.449625	0.4995	0.549375	0.59925	0.649125	0.699	0.748875
0.3	0.34	0.38655	0.4331	0.47965	0.5262	0.57275	0.6193	0.66585	0.7124	0.75895
0.35	0.38	0.423225	0.46645	0.509675	0.5529	0.596125	0.63935	0.682575	0.7258	0.769025
0.4	0.42	0.4599	0.4998	0.5397	0.5796	0.6195	0.6594	0.6993	0.7392	0.7791
0.45	0.46	0.496575	0.53315	0.569725	0.6063	0.642875	0.67945	0.716025	0.7526	0.789175
0.5	0.5	0.53325	0.5665	0.59975	0.633	0.66625	0.6995	0.73275	0.766	0.79925
0.55	0.54	0.569925	0.59985	0.629775	0.6597	0.689625	0.71955	0.749475	0.7794	0.809325
0.6	0.58	0.6066	0.6332	0.6598	0.6864	0.713	0.7396	0.7662	0.7928	0.8194
0.65	0.62	0.643275	0.66655	0.689825	0.7131	0.736375	0.75965	0.782925	0.8062	0.829475
0.7	0.66	0.67995	0.6999	0.71985	0.7398	0.75975	0.7797	0.79965	0.8196	0.83955
0.75	0.7	0.716625	0.73325	0.749875	0.7665	0.783125	0.79975	0.816375	0.833	0.849625
0.8	0.74	0.7533	0.7666	0.7799	0.7932	0.8065	0.8198	0.8331	0.8464	0.8597
0.85	0.78	0.789975	0.79995	0.809925	0.8199	0.829875	0.83985	0.849825	0.8598	0.869775
0.9	0.82	0.82665	0.8333	0.83995	0.8466	0.85325	0.8599	0.86655	0.8732	0.87985
0.95	0.86	0.863325	0.86665	0.869975	0.8733	0.876625	0.87995	0.883275	0.8866	0.889925
1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



Percentage Impervious
f 0.84
 $10I_1$ 25 mm/hr
C10 0.74

ARI	% AEP	Freq.Factor	C_x
1	0.632	63.2	0.8
2	0.393	39.3	0.85
5	0.181	18.1	0.95
10	0.095	9.5	1
20	0.049	4.9	1.05
50	0.02	2	1.15
100	0.01	1	1.2

Site Infiltration Conditions

Permeability p 3 m/day
0.000035 m/s

Infiltration Area A 75 m²
Infiltration Flow Q 0.00260 m³/s
2.60 L/s

Catchment Discharge (Q, L/s)

$$Q = C.I.A/3600$$

C_{20} 0.777

I 82 mm/hr

A 1434 m²

Q_{10} 25.38 L/s

∴ Catchment Discharge = 25.4 L/s

Figure 1.13 from AR&R Book 8, 2001
From Bureau of Meteorology

Catchment Discharge (Q, L/s)

$$Q = C.I.A/3600$$

C_{100} 0.888

I 111 mm/hr

A 1434 m²

Q_{100} 39.26 L/s

∴ Catchment Discharge = 39.3 L/s

Figure 1.13 from AR&R Book 8, 2001
From Bureau of Meteorology

Design Flow

Design Storm for Detention

1:20 ARI or 5% AEP

Design Flow Q 25.4 L/s

Runoff Coefficient for Developed Site

C_{20} 0.777

C_{100} 0.888

Time Interval		Rain Fall Intensity		Permissible Discharge		Site Volume		Required Storage	
Minutes	Hours	20 Year mm/hr	100 Year mm/hr	20 Year m ³	100 Year m ³	20 Year m ³	100 Year m ³	20 Year m ³	100 Year m ³
5		82	111	0.78	0.78	7.61	11.78	6.83	11.00
6		62.6	87.8	0.94	0.94	6.98	11.18	6.04	10.24
10		43.8	61.4	1.56	1.56	8.13	13.03	6.57	11.47
20		34.4	47.4	3.13	3.13	12.78	20.12	9.65	16.99
30		22	29.2	4.69	4.69	12.26	18.59	7.57	13.90
60	1	14	17.9	9.38	9.38	15.60	22.79	6.22	13.42
120	2	10.7	13.6	18.75	18.75	23.84	34.64	5.09	15.89
180	3	6.96	8.83	28.13	28.13	23.26	33.73	-4.86	5.61
360	6	4.55	5.9	56.25	56.25	30.42	45.08	-25.83	-11.17
720	12	2.92	3.89	112.50	112.50	39.04	59.44	-73.46	-53.06
1440	24	1.79	2.41	225.00	225.00	47.87	73.65	-177.13	-151.35
2880	48	1.3	1.74	450.00	450.00	69.53	106.35	-380.47	-343.65
4320	72	0	0	675.00	675.00	0.00	0.00	-675.00	-675.00
Max. Volumes									
								m ³	
								9.65	16.99
								+ 50% FoS	14.48 25.49

Where

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Permissible Discharge	$Q_{dis} = T \times Q_{inf}$ T = Time in seconds Q_{inf} = Infiltration flow in m/s
Site Volume	$V_{site} = ((C \times I \times A)/3600) \times T$ C = Run off coefficient I = rainfall intensity A = site area T = Time in seconds
Required Storage	$V_{store} = Q_{dis} - V_{site}$

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Gravel Depth	D	0.8	m
Gravel Porosity	p	0.25	
Bed Storage Available	V	15	m ³

For storm events greater than the 5% AEP the stormwater will overflow to the street.

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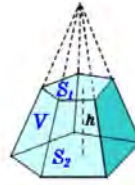
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Appendix B - Stormwater Infiltration and Detention Calculations - Catchment 2

NOTE: Revised cells highlighted

Site Area	1869	m ²
Predevelopment Impervious Site Area	0	m ²
Postdevelopment Impervious Site Area	1869	m ²

Permissible Site Discharge Conditions

Rational Method

Q	L/s	Peak Flow
C		Rational Method Runoff Coefficient
I	mm/hr	Average Rainfall Intensity
A	m ²	Catchment Area
F	1/3600	Conversion Factor

$$Q = F \cdot C \cdot I \cdot A$$

Site Location Storm Rainfall

Time Interval		Rain Fall Intensity		¹⁰ I ₁	10%, 1Hr	mm/hr
Minutes	Hours	20 Year 5%	100 Year 1%			
		mm/hr	mm/hr			
5		82	111			
10		62.6	87.8			
20		43.8	61.4			
30		34.4	47.4			
60	1	22	29.2			
120	2	14	17.9			
180	3	10.7	13.6			
360	6	6.96	8.83			
720	12	4.55	5.9			
1440	24	2.92	3.89			
2880	48	1.79	2.41			
4320	72	1.3	1.74			

$$C_{10} = 0.9 \times f + C_{10}^1 \times (1 - f) \quad C_{10}^1 = 0.1 + 0.0133 \times (I_1 - 25)$$

C₁₀ Lookup Table

f	25	30	35	40	45	50	55	60	65	70
0	0.1	0.1665	0.233	0.2995	0.366	0.4325	0.499	0.5655	0.632	0.6985
0.05	0.14	0.203175	0.26635	0.329525	0.3927	0.455875	0.51905	0.582225	0.6454	0.708575
0.1	0.18	0.23985	0.2997	0.35955	0.4194	0.47925	0.5391	0.59895	0.6588	0.71865
0.15	0.22	0.276525	0.33305	0.389575	0.4461	0.502625	0.55915	0.615675	0.6722	0.728725
0.2	0.26	0.3132	0.3664	0.4196	0.4728	0.526	0.5792	0.6324	0.6856	0.7388
0.25	0.3	0.349875	0.39975	0.449625	0.4995	0.549375	0.59925	0.649125	0.699	0.748875
0.3	0.34	0.38655	0.4331	0.47965	0.5262	0.57275	0.6193	0.66585	0.7124	0.75895
0.35	0.38	0.423225	0.46645	0.509675	0.5529	0.596125	0.63935	0.682575	0.7258	0.769025
0.4	0.42	0.4599	0.4998	0.5397	0.5796	0.6195	0.6594	0.6993	0.7392	0.7791
0.45	0.46	0.496575	0.53315	0.569725	0.6063	0.642875	0.67945	0.716025	0.7526	0.789175
0.5	0.5	0.53325	0.5665	0.59975	0.633	0.66625	0.6995	0.73275	0.766	0.79925
0.55	0.54	0.569925	0.59985	0.629775	0.6597	0.689625	0.71955	0.749475	0.7794	0.809325
0.6	0.58	0.6066	0.6332	0.6598	0.6864	0.713	0.7396	0.7662	0.7928	0.8194
0.65	0.62	0.643275	0.66655	0.689825	0.7131	0.736375	0.75965	0.782925	0.8062	0.829475
0.7	0.66	0.67995	0.6999	0.71985	0.7398	0.75975	0.7797	0.79965	0.8196	0.83955
0.75	0.7	0.716625	0.73325	0.749875	0.7665	0.783125	0.79975	0.816375	0.833	0.849625
0.8	0.74	0.7533	0.7666	0.7799	0.7932	0.8065	0.8198	0.8331	0.8464	0.8597
0.85	0.78	0.789975	0.79995	0.809925	0.8199	0.829875	0.83985	0.849825	0.8598	0.869775
0.9	0.82	0.82665	0.8333	0.83995	0.8466	0.85325	0.8599	0.86655	0.8732	0.87985
0.95	0.86	0.863325	0.86665	0.869975	0.8733	0.876625	0.87995	0.883275	0.8866	0.889925
1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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Percentage Impervious

f 1.00
 $^{10}I_1$ 25 mm/hr
C10 0.86

ARI	% AEP	Freq.Factor	C_x
1	0.632	63.2	0.8
2	0.393	39.3	0.85
5	0.181	18.1	0.95
10	0.095	9.5	1
20	0.049	4.9	1.05
50	0.02	2	1.15
100	0.01	1	1.2

Site Infiltration Conditions

Permeability p 3 m/day
0.000035 m/s

Infiltration Area A 60.5 m²
Infiltration Flow Q 0.00210 m³/s
2.10 L/s

Catchment Discharge (Q, L/s)

Q= C.I.A/3600

C_{20} 0.903

I 82 mm/hr

A 1869 m²

Q_{10} 38.44 L/s

∴ Catchment Discharge = 38.4 L/s

Figure 1.13 from AR&R Book 8, 2001
From Bureau of Meteorology

Catchment Discharge (Q, L/s)

Q= C.I.A/3600

C_{100} 1.032

I 111 mm/hr

A 1869 m²

Q_{100} 59.47 L/s

∴ Catchment Discharge = 59.5 L/s

Figure 1.13 from AR&R Book 8, 2001
From Bureau of Meteorology

Design Flow

Design Storm for Detention

1:100 ARI or 1% AEP

Design Flow Q 59.5 L/s

Runoff Coefficient for Developed Site

C_{20} 0.903

C_{100} 1.032

Time Interval		Rain Fall Intensity		Permissible Discharge		Site Volume		Required Storage	
Minutes	Hours	20 Year mm/hr	100 Year mm/hr	20 Year m ³	100 Year m ³	20 Year m ³	100 Year m ³	20 Year m ³	100 Year m ³
5		82	111	0.63	0.63	11.53	17.84	10.90	17.21
6		62.6	87.8	0.76	0.76	10.57	16.93	9.81	16.18
10		43.8	61.4	1.26	1.26	12.32	19.74	11.06	18.48
20		34.4	47.4	2.52	2.52	19.35	30.48	16.83	27.95
30		22	29.2	3.78	3.78	18.56	28.16	14.78	24.38
60	1	14	17.9	7.56	7.56	23.63	34.53	16.07	26.96
120	2	10.7	13.6	15.13	15.13	36.12	52.46	20.99	37.34
180	3	6.96	8.83	22.69	22.69	35.24	51.09	12.55	28.41
360	6	4.55	5.9	45.38	45.38	46.07	68.28	0.70	22.90
720	12	2.92	3.89	90.75	90.75	59.14	90.04	-31.61	-0.71
1440	24	1.79	2.41	181.50	181.50	72.50	111.56	-109.00	-69.94
2880	48	1.3	1.74	363.00	363.00	105.31	161.09	-257.69	-201.91
4320	72	0	0	544.50	544.50	0.00	0.00	-544.50	-544.50

Max. Volumes

m³ 20.99 37.34
+ 50% FoS 31.49 56.01

Where



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Permissible Discharge	$Q_{dis} = T \times Q_{inf}$ T = Time in seconds Q_{inf} = Infiltration flow in m/s
Site Volume	$V_{site} = ((C \times I \times A)/3600) \times T$ C = Run off coefficient I = rainfall intensity A = site area T = Time in seconds
Required Storage	$V_{store} = Q_{dis} - V_{site}$
Gravel Depth	D 0.8 m
Gravel Porosity	p 0.25
Bed Storage Available	V 12.1 m ³

As an overland flow path can not be provided the design will allow for the 100 year stormevent to be detained and infiltrated into the ground.

Discharge Bed has a storage capacity of 12.10 m³
Additional required storage is 25.24 m³

Additional storage to be achieved through a detention basin in the lower carpark with a flow restricting orifice

Discharge Orifice Size

Permissible Discharge Flow Rates = Soil Infiltration Rate

Q_{100} 2.10 L/s 0.002 m³/s

Depth of storage for 100 year rainfall event

h= 0.45 m (depth of ponded water + depth to centre of the orifice)

Flow through an orifice

$Q = k.A.V$
k= Shape factor 0.62
A= Area of the orifice
V= Flow velocity

Velocity

$V = \sqrt{2.g.h}$
g= gravity (9.81m/s²)
h= pressure head
 $\therefore V = 3.0$ m/s

Required area of the orifice for 100 year rainfall event discharge

$A = Q/(k.V)$
 $\therefore A = 0.0011$
1140 mm²

Diameter of the orifice

$A = \pi D^2/4$
 $D = \sqrt{(4.A/\pi)}$
 $\therefore D = 39$ mm

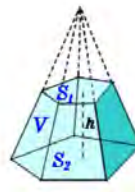
Detention Storage Calculation

Considering pond from pit to bottom of the kerb as a Frustum

Area 1
Pit Dimensions
a = 0.45 m
b = 0.45 m
Area S1 = 0.2025 m²

Pond Area
Area S2 = 140 m²

Depth of Pond
h = 0.07 m





Volume of Pond

$$V1 = 3.395629 \text{ m}^3$$

Considering the pond area above the kerb as a prism

Area 2

$$\text{Pond Area} = 140 \text{ m}^2$$

$$\text{Pond Depth} = 0.3 \text{ m}$$

$$\text{Pond Volume} = 42 \text{ m}^3$$

Total Above Ground Storage

$$V = 45.40 \text{ m}^3$$

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GEOTON Pty Ltd
Geotechnical Consultants

S2

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Invermay TAS 7248
Tel (+61) (3) 6326 5001
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20 July 2021

Reference No. GL21409Ab

PDA Surveyors
PO BOX 284
LAUNCESTON TAS 7315

Attention: Mr Allan Brooks

Dear Sir

**RE: Site Classification and Stormwater Disposal Evaluation
17 Church Street, Campbell Town**

We have pleasure in submitting herein our report detailing the results of the geotechnical investigation conducted at the above site.

Should you require clarification of any aspect of this report, please contact Sean Shahandeh or the undersigned on (03) 6326 5001.

For and on behalf of

Geoton Pty Ltd



Tony Barriera

Director – Principal Geotechnical Engineer

Site Classification and Stormwater Disposal Evaluation

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1 INTRODUCTION

At the request of PDA Surveyors, Geoton Pty Ltd has carried out a geotechnical investigation and landslide risk assessment for a proposed residential development at 17 Church Street, Campbell Town.

The investigation has been conducted to provide the following:

- An assessment of the general subsurface conditions at the site and consequently assigning a Site Classification in accordance with AS 2870 – 2011 “Residential Slabs and Footings”;
- An assessment of the surrounding topography and provide a Wind Classification in accordance with AS 4055:2012 “Wind Loads for Housing”; and
- The suitability of the site for disposal of stormwater in accordance with AS/NZS 3500.3 “Stormwater Drainage”;

A preliminary 2 Lot subdivision plan was provided; prepared by PDA Surveyors, reference 47248 P01, dated 06 April 2021. The above-mentioned site classification was conducted for Lot 1 only whereas an assessment of the suitability for stormwater disposal was conducted for both Lots 1 and 2.

2 BACKGROUND

2.1 Geology

The MRT Digital Geological Atlas 1:25,000 Series, indicates that the site is mapped as Cretaceous – Neogene Period Basalt, with this being generally confirmed by our field investigation.

2.2 Landslide Hazard

Examination of the LIST Landslide Planning Map – Hazard Bands Overlay, indicates that the site is not within a mapped landslide hazard band.

3 FIELD INVESTIGATION

The field investigation was conducted on 20 July 2021 and involved the drilling of 4 boreholes by a 4WD mounted auger rig to depths of between 1.4m and 2.0m.

Dynamic Cone Penetration (DCP) tests were conducted in the granular soils encountered in the investigation.

The logs of the boreholes are included in Appendix A and their locations are shown on Figure 1 attached.

Site Classification and Stormwater Disposal Evaluation

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4 SITE CONDITIONS

4.1 Surface Conditions

The site is currently undeveloped with the ground surface having a very gentle slope towards the southeast. The vegetation across the site comprises a low cover of grass and mature trees along the site boundaries.

Photographs of the site are attached as Plates 1 and 2.

4.2 Subsurface Conditions

The investigation indicated that the soil profile varied slightly across the site.

Borehole BH1 encountered silty sand topsoil to a depth of 0.25m, overlying medium dense to dense silty sand to a depth of 1.5m, underlain by high plasticity sandy clay to the auger refusal depth of 1.7m.

Boreholes BH2 and BH4 encountered silty sand topsoil to a depth of 0.25m, overlying medium dense to dense silty sand to depths of 0.8m to 1.5m, underlain by high plasticity sandy clay to the investigated depths of 1.4m to 2.0m.

Borehole BH3 encountered silty sand topsoil to a depth of 0.25m, overlying medium dense to dense silty sand the investigated depth of 1.4m.

Auger refusal in Borehole BH1 was inferred to be on a highly weathered rock (basalt).

The boreholes did not encounter any signs of groundwater seepage over the investigated depths.

Full details of soil conditions encountered are presented on the borehole logs.

5 SITE CLASSIFICATION (LOT 1)

After allowing due consideration of the site geology, drainage and soil conditions, the site has been classified as follows:

CLASS S (AS 2870)

Foundation designs in accordance with this classification are to be subject to the overriding conditions of the foundations section below.

This classification is applicable only for ground conditions encountered at the time of this investigation. If cut or fill earthworks are carried out, then the site classification will need to be re-assessed, and possibly changed.

5.1 Foundations

Particular attention should be paid to the design of footings as required by AS 2870 – 2011.

In addition to normal founding requirements arising from the above classification, particular conditions at this site dictate that the founding medium for all footings would be as follows:

Site Classification and Stormwater Disposal Evaluation

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**Silty SAND (SM) – fine to medium grained, light grey
encountered below 0.25m from the existing ground surface**

An allowable bearing pressure of **100kPa** is available for edge beams, strips, pads and bored piers founded as above.

Earthworks should be carried out in accordance with AS3798-2007, Earthworks for Residential and Commercial Development.

- All topsoil should be removed from the building footprint.
- The natural sand foundation should be proof rolled prior to slab on ground construction.
- All sands disturbed in the base of footing excavations should be compacted.
- If groundwater is encountered in site or footing excavations, it is recommended that subsoil drains are installed discharging to the stormwater system.

A higher allowable bearing pressure of **150kPa** is available for footings founded in the dense silty sand at depths below 0.7m (BH3) to 1.0m (BH2) from the existing ground surface.

The site classification presented assumes that the current natural drainage and infiltration conditions at the site will not be markedly affected by the proposed site development work. Care should therefore be taken to ensure that surface water is not permitted to collect adjacent to the structure and that significant changes to seasonal soil moisture equilibria do not develop as a result of service trench construction or tree root action.

Attention is drawn to Appendix B of AS 2870 and CSIRO Building Technical File BTF18 "Foundation Maintenance and Footing Performance: A Homeowner's Guide" as a guide to maintenance requirements for the proposed structure.

Although the borehole data provides an indication of subsurface conditions at the site, variations in soil conditions may occur in areas of the site not specifically covered by the field investigation. The base of all footing or beam excavations should therefore be inspected to ensure that the founding medium meets the requirements referenced herein with respect to type and strength of founding material.

The boreholes were backfilled shortly after being drilled, not allowing time for groundwater seepage flows to develop. Groundwater seepages or higher groundwater levels can occur during and/or after a prolonged period of wet weather or a heavy rainfall event.

6 WIND CLASSIFICATION

After allowing due consideration of the region, terrain, shielding and topography, the site has been classified as follows:

Site Classification and Stormwater Disposal Evaluation

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WIND CLASSIFICATION N2 (AS 4055)

REGION	TERRAIN CATEGORY	SHIELDING	TOPOGRAPHY
A	TC2.0	NS	T0

7 PRELIMINARY ON-SITE STORMWATER DISPOSAL (LOTS 1 & 2)**7.1 General**

On-site detention storage must be provided to limit the peak rate of piped stormwater discharge and overland flows from the site to that generated by a 5% Annual Exceedance Probabilities (AEP) storm event.

7.2 Permeability of Soil and Soil Category

Based on the findings of the borehole investigation and the results of the permeability tests, the soil has been classified as follows:

- Texture – Sand (Table E1 from AS/NZS 1547);
- Structure – Massive (Table E4 from AS/NZS 1547); and
- Category – 1 (Table E1 from AS/NZS 1547).

For massive Category 1 soils, the indicative permeability from AS/NZS1547 Table 5.1 is >3.0m/day.

- Adopted Permeability - 3.0m/day.

7.3 Rainfall and Runoff

The Intensity-Frequency-Design (IFD) rainfall curve and table for the site were generated from the Bureau of Meteorology IFD data website (BOM 2016).

In accordance with AS/NZS 3500.3 – Stormwater Drainage, Section 3.3.5, the design rainfall depth/intensity for anywhere in Australia shall be for a five-minute duration.

The five-minute duration design rainfall depth for the design AEP event is as follows:

- **5% AEP = 6.83mm**

The storage quantity is calculated using the following formula:

$$Q = CDA$$

where

- Q is quantity in m³;
- C is coefficient of runoff (taken as unity 1.0);
- D is depth of the Storm in m; and
- A is area of the catchment (roof area) that rainfall will runoff in m².

Site Classification and Stormwater Disposal Evaluation

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No plans for the proposed development have been provided, however a roof area of **300m²** has been adopted for evaluation of each lot.

As such, the stormwater quantity and flowrate for a design event are calculated as follows:

The storage quantity:

$$Q = 1.0 \times (6.83) / 1000 \times (300.0) = \mathbf{2.05m^3}.$$

The event flowrate (q_5) is calculated by dividing storage quantity by the storm duration of 5 minutes, i.e. 300 seconds, and thus

$$q_5 = (2.05) / 300 = 0.0068m^3/s = \mathbf{6.8L/s}$$

7.4 Detention Method

Suitable on-site detention will be provided through a gravel-filled detention bed with the capacity to hold a 5% AEP event before overflowing via sheet flow across the property.

The stormwater quantity for a 5% AEP event from the roof area is calculated as (Q) 2.05m³. Therefore, the detention bed will require a volume of approximately 8.2m³ to store a 5% AEP event taking into consideration a porosity of 0.25 for the 20mm to 40mm nominal size gravel. As such, the stormwater disposal area will require the following dimensions:

- Bed length = 16.4m
- Bed width = 1.0m
- Bed depth = 0.5m

These dimensions may be modified once actual plans for the developments on the lots are provided.

It is recommended that a 2m buffer be provided around the stormwater disposal area.

7.5 Conclusion

The subsurface investigation indicated that the site is underlain by silty sand with an indicative permeability of >3.0m/day. Based on the calculations above an approximate area of 16.4m² will be required for on-site stormwater detention for each lot. As such, the results of the investigation indicate that both Lots 1 and 2 have **sufficient depth and suitable area** available for on-site stormwater detention.

References:

AS 1726 - 2017 Geotechnical Site Investigation

AS 2870 - 2011 Residential Slabs and Footings Construction

AS 4055 - 2012 Wind Loads for Housing

IFD Data System: <http://www.bom.gov.au/water/designRainfalls/ifd/>

AS/NZS 3500.3 – Stormwater Drainage

Site Classification and Stormwater Disposal Evaluation

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Attachments:

Limitations of report

Figure 1 – Site Plan

Site Photographs

Appendix A – Borehole Logs & Explanation Sheets

Appendix B – Certificate Forms

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Geotechnical Consultants - Limitations of report

These notes have been prepared to assist in the interpretation and understanding of the limitations of this report.

Project specific criteria

The report has been developed on the basis of unique project specific requirements as understood by Geoton and applies only to the site investigated. Project criteria are typically identified in the Client brief and the associated proposal prepared by Geoton and may include risk factors arising from limitations on scope imposed by the Client. The report should not be used without further consultation if significant changes to the project occur. No responsibility for problems that might occur due to changed factors will be accepted without consultation.

Subsurface variations with time

Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. In the event of significant delays in the commencement of a project, further advice should be sought.

Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and at the time they are taken. All available data is interpreted by professionals to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, as it is virtually impossible to provide a definitive subsurface profile which includes all the possible variabilities inherent in soil and rock masses.

Report Recommendations

The report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete and therefore the report recommendations can only be regarded as preliminary. Where variations in conditions are encountered, further advice should be sought.

Specific purposes

This report should not be applied to any project other than that originally specified at the time the report was issued.

Interpretation by others

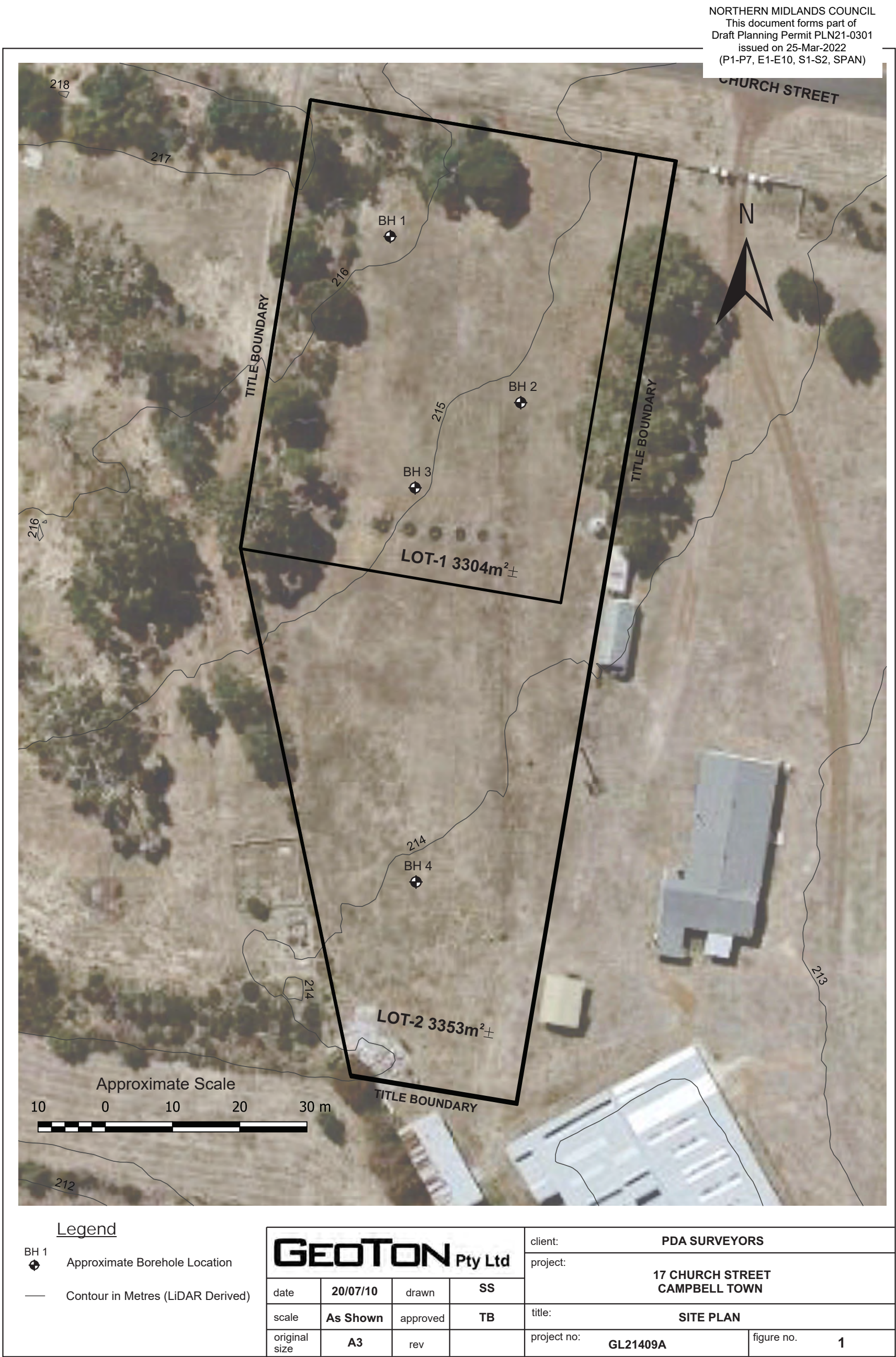
Geoton will not be responsible for interpretations of site data or the report findings by others involved in the design and construction process. Where any confusion exists, clarification should be sought from Geoton.

Report integrity

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way.

Geoenvironmental issues

This report does not cover issues of site contamination unless specifically required to do so by the client. In the absence of such a request, Geoton take no responsibility for such issues.



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PLATE 1 - View of the site looking to the northwest



PLATE 2 - View of the site looking to the south

GEOTON Pty Ltd				client: PDA SURVEYORS	
				project: 17 CHURCH STREET CAMPBELL TOWN	
title: PHOTOGRAPH					
date:	19/07/2021	original size	A4	project no: GL21409A	figure no. PLATES 1 & 2

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Appendix A

Borehole Logs

**Geotechnical Consultants**

PO Box 522 Prospect TAS 7250

Unit 24, 16-18 Goodman Court, Invermay TAS

Tel (03) 6326 5001

**ENGINEERING
BOREHOLE LOG**

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Borehole no. BH1

Sheet no. 1 of 1

Job no. GL21409A

Client :		PDA Surveyors				Date :		19/07/2021			
Project :		Site Classification and Stormwater Disposal Evaluation				Logged By :		SS			
Location :		17 Church Street, Campbell Town									
Drill model :		Drilltech		Easting:		Slope: 90°		RL Surface :			
Hole diameter :		150mm		Northing:		Bearing: -		Datum :			
Method	Support	Penetration	Water	Notes Samples Tests	Depth (m)	Graphic log Classification Symbol	Material Description	Moisture condition	Consistency density, index	Structure, additional observations	
ADV	N				0.25		TOPSOIL - Silty SAND, fine to medium grained, dark grey, trace fine gravel	M	L		
					0.50	SM	Silty SAND - fine to medium grained light grey, trace fine to medium gravel	M	MD		
					0.75						
					1.00			M	D		
					1.25		With clay				
					1.50						
						CH	Sandy CLAY - high plasticity, light grey mottled brown, fine to medium grained sand	M	VSt		W < PL
					1.75		Borehole BH1 auger refusal @ 1.7m on inferred highly weathered rock				
					2.00						
					2.25						

**Geotechnical Consultants**

PO Box 522 Prospect TAS 7250

Unit 24, 16-18 Goodman Court, Invermay TAS

Tel (03) 6326 5001

**ENGINEERING
BOREHOLE LOG**

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Borehole no. BH2

Sheet no. 1 of 1

Job no. GL21409A

Client :		PDA Surveyors				Date : 19/07/2021				
Project :		Site Classification and Stormwater Disposal Evaluation				Logged By : SS				
Location :		17 Church Street, Campbell Town								
Drill model :		Drilltech		Easting:		Slope: 90°		RL Surface :		
Hole diameter :		150mm		Northing:		Bearing: -		Datum :		
Method	Support	Penetration	Water	DCP (Blows/ 100mm)	Depth (m)	Graphic log Classification Symbol	Material Description	Moisture condition	Consistency density, index	Structure, additional observations
ADV	N			2			TOPSOIL - Silty SAND, fine to medium grained, dark grey	M	L	
				2						
				4	0.25					
				5		SM	Silty SAND - fine to medium grained light grey, trace coarse grained sand	M	MD	
				5						
				5	0.50					
				4						
				4						
				4	0.75					
				4						
				5	1.00					
				7				M	D	
				10						
					1.25		With clay			
			1.50							
						CH	Sandy CLAY - high plasticity, grey mottled light grey, fine to medium grained sand, trace fine gravel, trace coarse grained sand			
					1.75					
					2.00					
							Borehole BH2 terminated @ 2.0m			
					2.25					

**Geotechnical Consultants**

PO Box 522 Prospect TAS 7250

Unit 24, 16-18 Goodman Court, Invermay TAS

Tel (03) 6326 5001

**ENGINEERING
BOREHOLE LOG**

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Borehole no. BH3

Sheet no. 1 of 1

Job no. GL21409A

Client :		PDA Surveyors					Date :		19/07/2021		
Project :		Site Classification and Stormwater Disposal Evaluation					Logged By :		SS		
Location :		17 Church Street, Campbell Town									
Drill model :		Drilltech		Easting:		Slope: 90°		RL Surface :			
Hole diameter :		150mm		Northing:		Bearing: -		Datum :			
Method	Support	Penetration	Water	Notes Samples Tests	Depth (m)	Graphic log Classification Symbol	Material Description	Moisture condition	Consistency density, index	Structure, additional observations	
ADV	N				0.25		TOPSOIL - Silty SAND, fine to medium grained, grey	M	L		
						SM	Silty SAND - fine to medium grained light grey	M	MD		
					0.50						
					0.75			M	D		
					1.00						
					1.25						
					1.50						
					1.75						
					2.00						
					2.25						
						Borehole BH3 terminated @ 1.4m					

**Geotechnical Consultants**

PO Box 522 Prospect TAS 7250

Unit 24, 16-18 Goodman Court, Invermay TAS

Tel (03) 6326 5001

**ENGINEERING
BOREHOLE LOG**

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Borehole no. BH4

Sheet no. 1 of 1

Job no. GL21409A

Client :		PDA Surveyors					Date : 19/07/2021				
Project :		Site Classification and Stormwater Disposal Evaluation					Logged By : SS				
Location :		17 Church Street, Campbell Town									
Drill model :		Drilltech		Easting:		Slope: 90°		RL Surface :			
Hole diameter :		150mm		Northing:		Bearing: -		Datum :			
Method	Support	Penetration	Water	Notes Samples Tests	Depth (m)	Graphic log Classification Symbol	Material Description	Moisture condition	Consistency density, index	Structure, additional observations	
ADV	N				0.25		TOPSOIL - Silty SAND, fine to medium grained, grey	M	L		
					0.50	SM	Silty SAND - fine to medium grained light grey	M	MD		
					0.75		With clay	M	D		
					1.00	CH	Sandy CLAY - high plasticity, fine to medium grained sand, trace of coarse grained sand	M	St		W < PL
					1.25			M	VSt		W < PL
					1.50		Borehole BH4 terminated @ 1.4m				
					1.75						
					2.00						
					2.25						



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Investigation Log Explanation Sheet

METHOD – BOREHOLE

TERM	Description
AS	Auger Screwing*
AD	Auger Drilling*
RR	Roller / Tricone
W	Washbore
CT	Cable Tool
HA	Hand Auger
DT	Diatube
B	Blank Bit
V	V Bit
T	TC Bit

* Bit shown by suffix e.g. ADT

METHOD – EXCAVATION

TERM	Description
N	Natural exposure
X	Existing excavation
H	Backhoe bucket
B	Bulldozer blade
R	Ripper
E	Excavator

SUPPORT

TERM	Description
M	Mud
N	Nil
C	Casing
S	Shoring

PENETRATION

1	2	3	4	
				No resistance ranging to Refusal

WATER

Symbol	Description
	Water inflow
	Water outflow
	17/3/08 water on date shown

NOTES, SAMPLES, TESTS

TERM	Description
U ₅₀	Undisturbed sample 50 mm diameter
U ₆₃	Undisturbed sample 63 mm diameter
D	Disturbed sample
N	Standard Penetration Test (SPT)
N*	SPT – sample recovered
N _c	SPT with solid cone
V	Vane Shear
PP	Pocket Penetrometer
P	Pressumeter
B _s	Bulk sample
E	Environmental Sample
R	Refusal
DCP	Dynamic Cone Penetrometer (blows/100mm)
PL	Plastic Limit
LL	Liquid Limit
LS	Linear Shrinkage

CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION

Based on AS 1726:2017

MOISTURE

TERM	Description
D	Dry
M	Moist
W	Wet

CONSISTENCY/DENSITY INDEX

TERM	Description
VS	very soft
S	soft
F	firm
St	stiff
VSt	very stiff
H	hard
Fr	friable
VL	very loose
L	loose
MD	medium dense
D	dense
VD	Very dense



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Soil Description Explanation Sheet (1 of 2)

DEFINITION

In engineering terms, soil includes every type of uncemented or partially cemented inorganic or organic material found in the ground. In practice, if the material can be remoulded or disintegrated by hand in its field condition or in water it is described as a soil. Other materials are described using rock description terms.

CLASSIFICATION SYMBOL AND SOIL NAME

Soils are described in accordance with the AS 1726: 2017 as shown in the table on Sheet 2.

PARTICLE SIZE DEFINITIONS

NAME	SUBDIVISION	SIZE (mm)
BOULDERS		>200
COBBLES		63 to 200
GRAVEL	Coarse	19 to 63
	Medium	6.7 to 19
	Fine	2.36 to 6.7
SAND	Coarse	0.6 to 2.36
	Medium	0.21 to 0.6
	Fine	0.075 to 0.21
SILT		0.002 to 0.075
CLAY		<0.002

MOISTURE CONDITION

Coarse Grained Soils

Dry Non-cohesive and free running.

Moist Soil feels cool, darkened in colour.
Soil tends to stick together.

Wet As for moist but with free water forming when handling.

Fine Grained Soils

Moist, dry of Plastic Limit – $w < PL$

Hard and friable or powdery.

Moist, near Plastic Limit – $w \approx PL$

Soils can be moulded at a moisture content approximately equal to the plastic limit.

Moist, wet of Plastic Limit – $w > PL$

Soils usually weakened and free water forms on hands when handling.

Wet, near Liquid Limit – $w \approx LL$

Wet, wet of Liquid Limit – $w > LL$

CONSISTENCY TERMS FOR COHESIVE SOILS

TERM	UNDRAINED STRENGTH s_u (kPa)	FIELD GUIDE
Very Soft	≤ 12	Exudes between the fingers when squeezed in hand
Soft	12 to 25	Can be moulded by light finger pressure
Firm	25 to 50	Can be moulded by strong finger pressure
Stiff	50 to 100	Cannot be moulded by fingers
Very Stiff	100 to 200	Can be indented by thumb nail
Hard	>200	Can be indented with difficulty by thumb nail
Friable	–	Can be easily crumbled or broken into small pieces by hand

RELATIVE DENSITY OF NON-COHESIVE SOILS

TERM	DENSITY INDEX (%)
Very Loose	≤ 15
Loose	15 to 35
Medium Dense	35 to 65
Dense	65 to 85
Very Dense	> 85

DESCRIPTIVE TERMS FOR ACCESSORY SOIL COMPONENTS

DESIGNATION OF COMPONENT	IN COARSE GRAINED SOILS		IN FINE GRAINED SOILS	TERM
	% Fines	% Accessory coarse fraction	% Sand/ gravel	
Minor	≤ 5	≤ 15	≤ 15	Trace
	$>5, \leq 12$	$>15, \leq 30$	$>15, \leq 30$	With
Secondary	>12	>30	>30	Prefix

SOIL STRUCTURE

ZONING		CEMENTING	
Layer	Continuous across the exposure or sample.	Weakly cemented	Easily disaggregated by hand in air or water.
Lens	Discontinuous layer of different material, with lenticular shape.	Moderately cemented	Effort is required to disaggregate the soil by hand in air or water.
Pocket	An irregular inclusion of different material.		

GEOLOGICAL ORIGIN

WEATHERED IN PLACE SOILS

Extremely weathered material	Structure and/or fabric of parent rock material retained and visible.
Residual soil	Structure and/or fabric of parent rock material not retained and visible.

TRANSPORTED SOILS

Aeolian soil	Carried and deposited by wind.
Alluvial soil	Deposited by streams and rivers.
Colluvial soil	Soil and rock debris transported downslope by gravity.
Estuarine soil	Deposited in coastal estuaries, and including sediments carried by inflowing rivers and streams, and tidal currents.
Fill	Man-made deposit. Fill may be significantly more variable between tested locations than naturally occurring soils.
Lacustrine soil	Deposited in freshwater lakes.
Marine soil	Deposited in a marine environment.



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Soil Description Explanation Sheet (2 of 2)

SOIL CLASSIFICATION INCLUDING IDENTIFICATION AND DESCRIPTION

FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 63 mm and basing fractions on estimated mass)				GROUP SYMBOL	PRIMARY NAME		
COARSE GRAINED SOIL More than 65% of soil excluding oversize fraction is larger than 0.075 mm	(A 0.075 mm particle is about the smallest particle visible to naked eyes)	GRAVEL More than half of coarse fraction is larger than 2.36 mm	CLEAN GRAVEL (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes	GW	GRAVEL	
				Predominantly one size or a range of sizes with some intermediate sizes missing	GP	GRAVEL	
			GRAVEL WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML and MH below)	GM	Silty GRAVEL	
				Plastic fines (for identification procedures see CL, CI and CH below)	GC	Clayey GRAVEL	
		SAND More than half of coarse fraction is smaller than 2.36 mm	CLEAN SAND (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate sizes	SW	SAND	
				Predominantly one size or a range of sizes with some intermediate sizes missing	SP	SAND	
			SAND WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML and MH below)	SM	Silty SAND	
				Plastic fines (for identification procedures see CL, CI and CH below)	SC	Clayey SAND	
	FINE GRAINED SOIL More than 35% of soil excluding oversize fraction is smaller than 0.075 mm	IDENTIFICATION PROCEDURES ON FRACTIONS <0.075 mm					
			DRY STRENGTH	DILATANCY	TOUGHNESS		
SILT & CLAY (low to medium plasticity, LL ≤ 50)		None to Low	Slow to Rapid	Low	ML	SILT	
		Medium to High	None to Slow	Medium	CL, CI	CLAY	
		Low to Medium	Slow	Low	OL	ORGANIC SILT	
SILT & CLAY (high plasticity, LL > 50)		Low to Medium	None to Slow	Low to Medium	MH	SILT	
		High to Very High	None	High	CH	CLAY	
		Medium to High	None to Very Slow	Low to Medium	OH	ORGANIC CLAY	
Highly Organic Soil		Readily identified by colour, odour, spongy feel and frequently by fibrous texture.			Pt	PEAT	
• LL – Liquid Limit.							

• LL – Liquid Limit.

COMMON DEFECTS IN SOILS

TERM	DEFINITION	DIAGRAM	TERM	DEFINITION	DIAGRAM
PARTING	A surface or crack across which the soil has little or no tensile strength. Parallel or sub parallel to layering (e.g. bedding). May be open or closed.		SOFTENED ZONE	A zone in clayey soil, usually adjacent to a defect in which the soil has a higher moisture content than elsewhere.	
FISSURE	A surface or crack across which the soil has little or no tensile strength, but which is not parallel or sub parallel to layering. May be open or closed. May include desiccation cracks.		TUBE	Tubular cavity. May occur singly or as one of a large number of separate or inter-connected tubes. Walls often coated with clay or strengthened by denser packing of grains. May contain organic matter.	
SHEARED SEAM	Zone in clayey soil with roughly parallel near planar, curved or undulating boundaries containing closely spaced, smooth or slickensided, curved intersecting fissures which divide the mass into lenticular or wedge-shaped blocks.		TUBE CAST	An infilled tube. The infill may be uncemented or weakly cemented soil or have rock properties.	
SHEARED SURFACE	A near planar curved or undulating, smooth, polished or slickensided surface in clayey soil. The polished or slickensided surface indicates that movement (in many cases very little) has occurred along the defect.		INFILLED SEAM	Sheet or wall like body of soil substance or mass with roughly planar to irregular near parallel boundaries which cuts through a soil mass. Formed by infilling of open defects.	

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Appendix B

Certificate Forms

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CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

To:	PDA Surveyors	Owner /Agent	Form 55
	PO Box 284	Address	
	Launceston Tas 7250	Suburb/postcode	

Qualified person details:

Qualified person:	Tony Barriera - Geoton Pty. Ltd.		
Address:	PO Box 522	Phone No:	03 6326 5001
	Prospect Tas 7250	Fax No:	
Licence No:	CC6220 P	Email address:	tbarriera@geoton.com.au

Qualifications and Insurance details:	Tony Barriera – BEng, MSc CPEng, NER – IEAust 471929 Civil, Geotechnical Certain Underwriters at Lloyd's- ENG 20 000330	(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)
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Speciality area of expertise:	Geotechnical Engineering	(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)
-------------------------------	--------------------------	--

Details of work:

Address:	17 Church Street	Lot No:	1
	Campbell Town Tas 7210	Certificate of title No:	14992/1
The assessable item related to this certificate:	Classification of foundation conditions according to AS2870 - 2011	(description of the assessable item being certified) Assessable item includes – - a material; - a design - a form of construction - a document - testing of a component, building system or plumbing system - an inspection, or assessment, performed	

Certificate details:

Certificate type:	Foundation Site Classification – AS2870	(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)
-------------------	---	--

This certificate is in relation to the above assessable item, at any stage, as part of - (tick one)

building work, plumbing work or plumbing installation or demolition work:

☐

or

a building, temporary structure or plumbing installation:

☒

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In issuing this certificate the following matters are relevant –

Documents:	Geoton Pty Ltd, Report Reference No. GL21409Ab, dated 20/07/2021
Relevant calculations:	Refer to report
References:	AS 2870 – 2011 Residential Slabs and Footings Construction AS 4055 – 2012 Wind Loads for Housing CSIRO Building Technical File 18


Substance of Certificate: (what it is that is being certified)

Site Classification in accordance to AS2870 - 2011
 Wind Loading in accordance to AS 4055 - 2012
 Findings and recommendations of report

Scope and/or Limitations

The classification applies to the site as investigated at the time and does not account for any future alteration to foundation conditions resulting from earthworks, drainage condition changes or site maintenance variations.

I certify the matters described in this certificate.

	<i>Signed:</i>	<i>Certificate No:</i>	<i>Date:</i>
Qualified person:		GL21409Ab	20/07/2021

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Appendix A



Submission to Planning Authority Notice

Council Planning Permit No.	PLN-21-0301	Council notice date	10/11/2021
TasWater details			
TasWater Reference No.	TWDA 2021/01949-NMC	Date of response	19/11/2021
TasWater Contact	Anthony Cengia Scott James (Trade Waste)	Phone No.	0474 933 293 0417 240 264
Response issued to			
Council name	NORTHERN MIDLANDS COUNCIL		
Contact details	Planning@nmc.tas.gov.au		
Development details			
Address	17 CHURCH ST, CAMPBELL TOWN	Property ID (PID)	2036373
Description of development	Planning Scheme Amendment to insert Emergency Services as a Discretionary Use + Application for Emergency Services Facility		
Schedule of drawings/documents			
Prepared by	Drawing/document No.	Revision No.	Date of Issue
M architecture	21.031 Sheets DA.1 to DA.6		08/10/2021
Conditions			
<p>SUBMISSION TO PLANNING AUTHORITY NOTICE OF DRAFT AMENDMENT TO PLANNING SCHEME <u>AND</u> PLANNING APPLICATION REFERRALS</p> <p>Pursuant to the <i>Water and Sewerage Industry Act 2008</i> (TAS) Section 56P(1) TasWater makes the following submission(s):</p> <p>TasWater does not object to the draft amendment to planning scheme and has no formal comments for the Tasmanian Planning Commission in relation to this matter and does not require to be notified of nor attend any subsequent hearings.</p> <p>Pursuant to the <i>Water and Sewerage Industry Act 2008</i> (TAS) Section 56P(1) TasWater imposes the following conditions on the permit for this application:</p> <p>CONNECTIONS, METERING & BACKFLOW</p> <ol style="list-style-type: none"> 1. A suitably sized water supply with metered connection and sewerage system and connection to the development must be designed and constructed to TasWater's satisfaction and be in accordance with any other conditions in this permit. Advice: TasWater will not accept direct fire boosting from the network unless it can be demonstrated that the periodic testing of the system will not have a significant negative effect on our network and the minimum service requirements of other customers serviced by the network. To this end break tanks may be required with the rate of flow into the break tank controlled so that peak flows to fill the tank do not also cause negative effect on the network. 2. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer's cost. 3. Prior to commencing construction/use of the development, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater. <p>TRADE WASTE</p>			

NORTHERN MIDLANDS COUNCIL
This document forms part of
Draft Planning Permit PLN21-0301
issued on 25-Mar-2022
(P1-P7, E1-E10, S1-S2, SPAN)



4. Prior to the commencement of operation, the developer/property owner must obtain Consent to discharge Trade Waste from TasWater.
 5. The developer must install appropriately sized and suitable pre-treatment devices prior to gaining Consent to discharge.
 6. The Developer/property owner must comply with all TasWater conditions prescribed in the Trade Waste Consent
- DEVELOPMENT ASSESSMENT FEES**
7. The applicant or landowner as the case may be, must pay a development assessment fee of \$363.57, to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater.
- The payment is required within 30 days of the issue of an invoice by TasWater.

Advice

General

For information on TasWater development standards, please visit <https://www.taswater.com.au/building-and-development/technical-standards>

For application forms please visit <https://www.taswater.com.au/building-and-development/development-application-form>

Service Locations

Please note that the developer is responsible for arranging to locate the existing TasWater infrastructure and clearly showing it on the drawings. Existing TasWater infrastructure may be located by a surveyor and/or a private contractor engaged at the developers cost to locate the infrastructure.

- (a) A permit is required to work within TasWater's easements or in the vicinity of its infrastructure.
Further information can be obtained from TasWater
- (b) TasWater has listed a number of service providers who can provide asset detection and location services should you require it. Visit www.taswater.com.au/Development/Service-location for a list of companies
- (c) TasWater will locate residential water stop taps free of charge
- (d) Sewer drainage plans or Inspection Openings (IO) for residential properties are available from your local council.

Trade Waste

Prior to any Building and/or Plumbing work being undertaken, the applicant requires a Certificate for Certifiable Work (Building and/or Plumbing). The Certificate for Certifiable Work (Building and/or Plumbing) must accompany all documentation submitted to Council. Documentation must include a floor and site plan with:

Location of all pre-treatment devices i.e. Oil Water Separator;

Schematic drawings and specification (including the size and type) of any proposed pre-treatment device and drainage design; and

Location of an accessible sampling point in accordance with the TasWater Trade Waste Sampling Specifications for sampling discharge.

At the time of submitting the application for a Certificate for Certifiable Work (Building and/or Plumbing) a

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Trade Waste Application form is also required.

The application forms are available at <http://www.taswater.com.au/Customers/Liquid-Trade-Waste/Commercial>.

Declaration

The drawings/documents and conditions stated above constitute TasWater's Submission to Planning Authority Notice.

Authorised by

Jason Taylor
 Development Assessment Manager

TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

CLIENT:
DPFEM

PROJECT:
17 CHURCH STREET, DRIVEWAY ACCESS

ADDRESS:
17 CHURCH STREET, CAMPBELL TOWN

PROJECT No:
210073 - DA

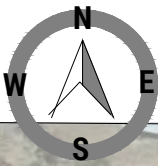
STATUS:
CONTROLLED DOCUMENT

ISSUED FOR / DESCRIPTION:
DEVELOPMENT APPROVAL

DRAWINGS:

- COV - COVER SHEET
- C000 - CIVIL NOTES
- C101 - SITE AND LOCATION PLAN
- C201 - DEMOLITION PLAN
- C301 - EROSION CONTROL PLAN
- C401 - CIVIL WORKS PLAN
- C411 - CIVIL SETOUT PLAN
- C421 - TURNING OUT PLAN
- C422 - TURNING IN PLAN
- C701 - CIVIL SECTIONS AND DETAILS

				STATUS: CONTROLLED DOCUMENT		DESIGN BY: MRP	 22–24 Paterson Street Launceston TAS 7250 rarein.com.au P.03 6388 9200	CLIENT: DPFEM PROJECT: 17 CHURCH STREET, DRIVEWAY ACCESS ADDRESS: 17 CHURCH STREET, CAMPBELL TOWN	TITLE: COVER SHEET	
						DESIGN CHK: RJJ				
						DRAWN BY: MRP				
						DRAFT CHK: KL				
0	DEVELOPMENTAL APPROVAL	KL	28-10-21	DO NOT SCALE - IF IN DOUBT, ASK THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS PREPARED. © RARE INNOVATION PTY LTD. ABN 51 619 598 257		APPROVED: R.JESSON	ACRED. No: CC5848I			SCALE: - SHEET SIZE: A3 DWGs IN SET: -
REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:	APPROVED: R.JESSON	ACRED. No: CC5848I	DATE: 28-10-21			PROJECT No: 210073	DWG No: COV REV: 0



LOCALITY PLAN
NTS



SITE PLAN
SCALE 1:1000

				STATUS: CONTROLLED DOCUMENT		DESIGN BY: MRP	 22–24 Paterson Street Launceston TAS 7250 rarein.com.au P.03 6388 9200	CLIENT: DPFEM	TITLE: CIVIL WORKS PLAN
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						DRAWN BY: MRP		ADDRESS: 17 CHURCH STREET, CAMPBELL TOWN	SCALE: 1:1000 SHEET SIZE: A3 DWGs IN SET: -
						DRAFT CHK: KL			PROJECT No: 210073 DWG No: C101 REV: 0
0	DEVELOPMENTAL APPROVAL	KL	28-10-21	APPROVED: R.JESSON	ACRED. No: CC5848I	DATE: 28-10-21			
REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:						



DEMOLITION PLAN

SCALE 1:200

DEMOLITION NOTES

- 1. PRIOR TO COMMENCING DEMOLITION AND SITE WORKS, THE CONTRACTOR IS TO ARRANGE AND PAY FOR THE ON SITE MARKING AND CONFIRMATION OF DEPTH, OF SERVICE LOCATIONS FOR ALL UNDERGROUND SERVICES INCLUDING COMMUNICATIONS, TASNETWORKS, POWERCO AND COUNCIL SERVICES (ie: WATER, STORMWATER AND SEWER) IN THE AREA OF NEW WORKS. LOCATION TO BE CONFIRMED USING CABLE LOCATORS AND HAND DIGGING METHODS. PRIOR TO ANY WORKS ON SITE, ANY CLASHES WITH DESIGNED SERVICES ON FOLLOWING DRAWINGS ARE TO BE REPORTED TO DESIGN ENGINEER FOR DIRECTION.
- 2. REFER DRAWINGS FOR SET OUT DIMENSIONS & COORDINATE ALL LEVELS, CONTRACTOR TO REFER ENGINEER FOR ANY DISCREPANCIES / CLASHES.
- 3. CAP & TERMINATE & REMOVE REDUNDANT DISUSED DRAINAGE SERVICES TO SATISFACTION OF ENGINEER & LOCAL AUTHORITIES
- 4. INSTALL SILT FENCES & TRAPS TO PREVENT SEDIMENTS & POLLUTANTS ENTERING STORM WATER SYSTEM OR NATURAL DRAINAGE LINES
- 5. STOCK PILING OF SOILS OR MATERIALS AFFECTED BY WATER TO BE STORED CLEAR OF ANY DRAINAGE PATH
- 6. CLEAN SITE VEHICLES BEFORE EXITING SITE
- 7. DISPOSE OF EXCAVATED MATERIAL TO LICENSED WASTE FACILITY OR APPROVED LAND FILL SITE
- 8. TRENCHES WHERE SERVICES ARE REMOVED ARE TO BE FILLED WITH AN APPROVED COMPACTED MATERIAL & TO ENGINEERS COMPACTION SPECIFICATIONS. MATCH & MAKE GOOD EXISTING SURFACES TO MATCH EXISTING SURROUNDINGS.
- 9. LOCATE AND PROTECT EXISTING OVERHEAD POWER LINE DURING WORKS



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				CONTROLLED DOCUMENT		DESIGN CHK: RJJ		PROJECT: 17 CHURCH STREET, DRIVEWAY ACCESS	
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						DRAFT CHK: KL			
0	DEVELOPMENTAL APPROVAL	KL	28-10-21	APPROVED: R.JESSON	ACRED. No: CC5848I	DATE: 28-10-21			SCALE: 1:200 SHEET SIZE: A3 DWGs IN SET: -
REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:					PROJECT No: 210073 DWG No: C201 REV: 0	



EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL RUNOFF AND SEDIMENT CONTROL STRUCTURES TO BE INSPECTED EACH WORKING DAY MAINTAINED IN A FUNCTIONING CONDITION
- 2. ALL VEGETATION OUTSIDE OF THE BUILDING ENVELOPE TO BE RETAINED
- 3. REFER 'SOIL AND WATER' NOTES IN CIVIL NOTES FOR ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES
- 4. EROSION AND SEDIMENT CONTROL MEASURES TO BE PLACED IN ACCORDANCE WITH NRM GUIDELINES & DETAILS SUPPLIED IN THESE DRAWINGS.

EROSION CONTROL PLAN

SCALE 1:200

LEGEND

----- EROSION CONTROL BARRIER



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						DRAWN BY: MRP			
						DRAFT CHK: KL			
0	DEVELOPMENTAL APPROVAL	KL	28-10-21						
REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:	APPROVED: R.JESSON	ACRED. No: CC5848I	DATE: 28-10-21	SCALE: 1:200		SHEET SIZE: A3 DWGs IN SET: -
							PROJECT No: 210073	DWG No: C301 REV: 0	

11/11/2016

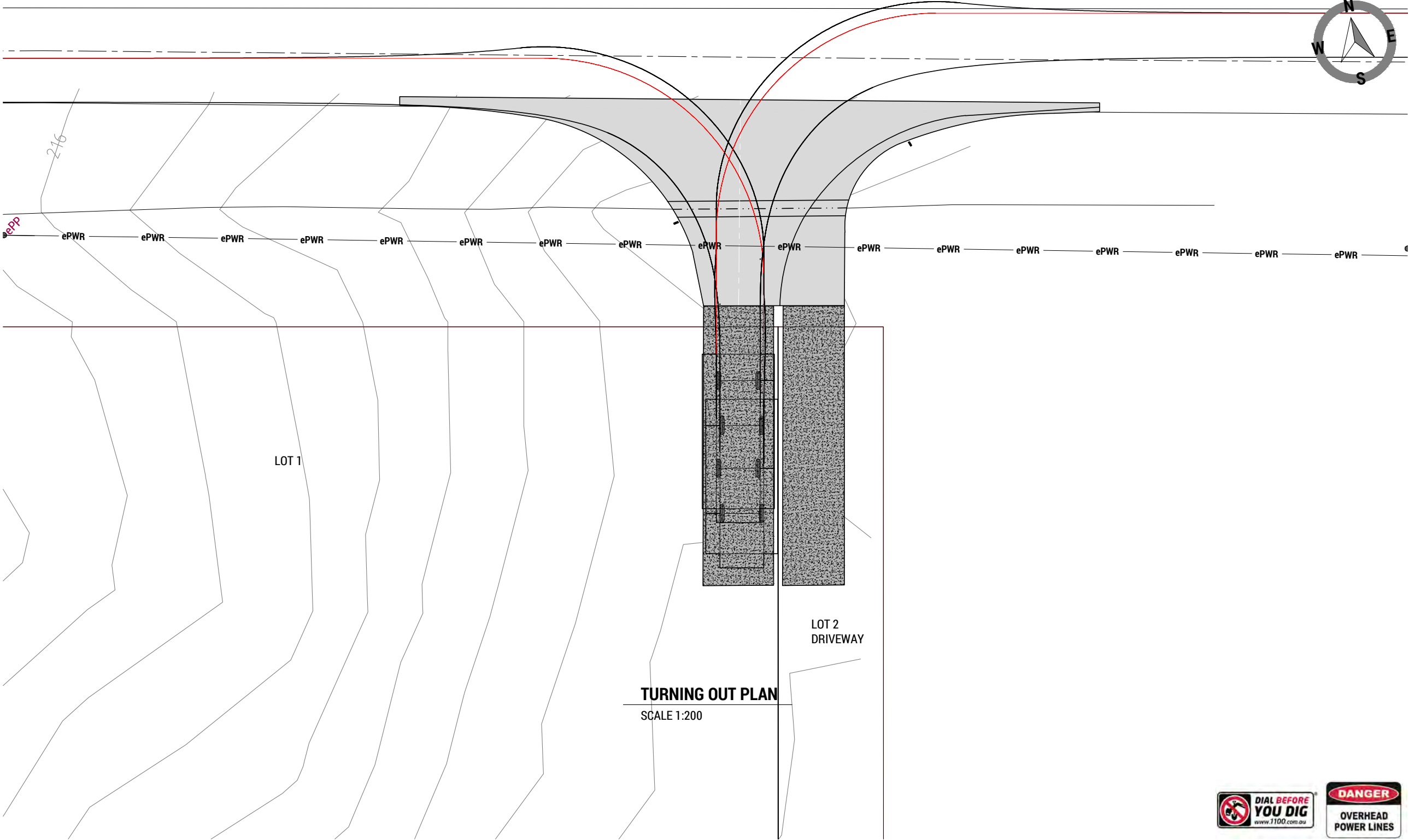


ePP EXISTING POWER POLE

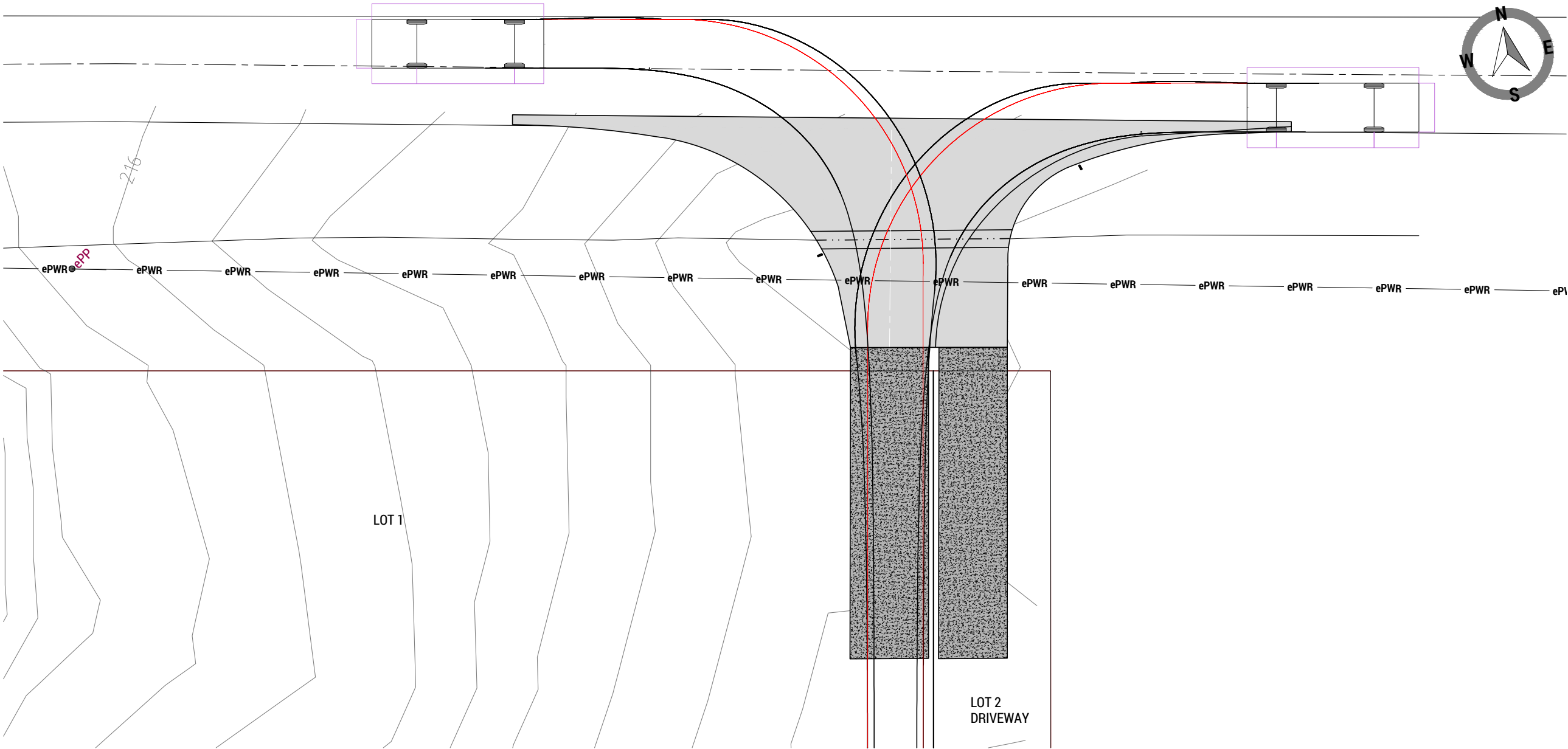
SCALE 1:200



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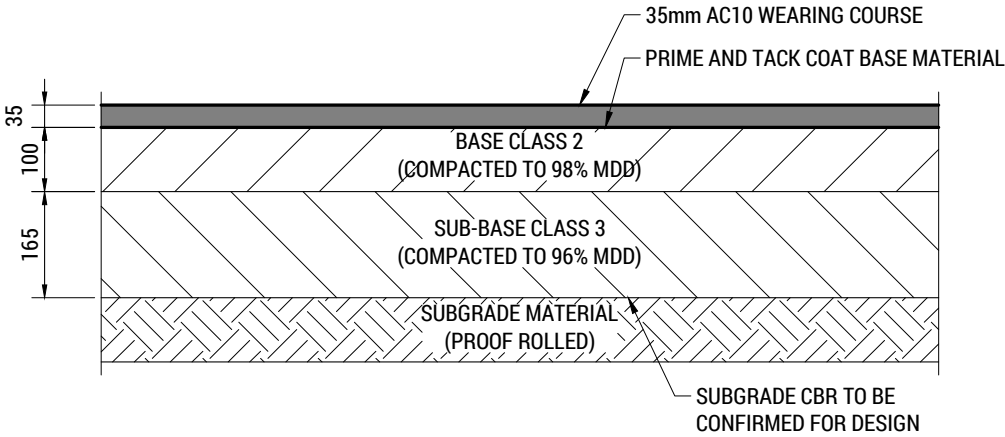
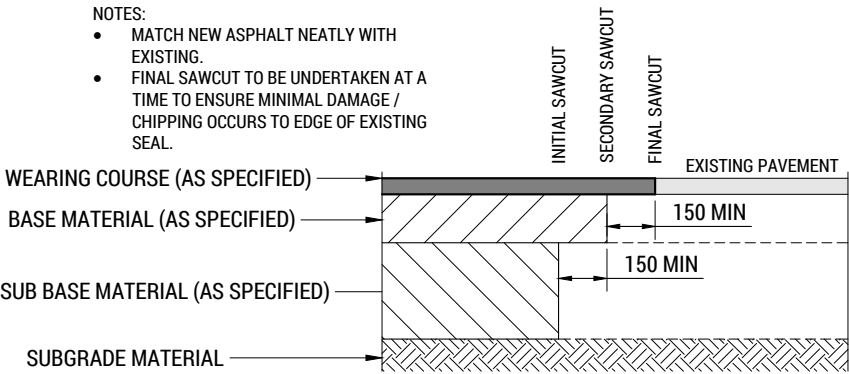
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						DESIGN CHK: RJJ		PROJECT: 17 CHURCH STREET, DRIVEWAY ACCESS	
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						DRAFT CHK: KL			PROJECT No: 210073 DWG No: C421 REV: 0
0	DEVELOPMENTAL APPROVAL	KL	28-10-21	APPROVED: R.JESSON	ACRED. No: CC5848I	DATE: 28-10-21			
REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:						



TURNING IN PLAN
SCALE 1:200

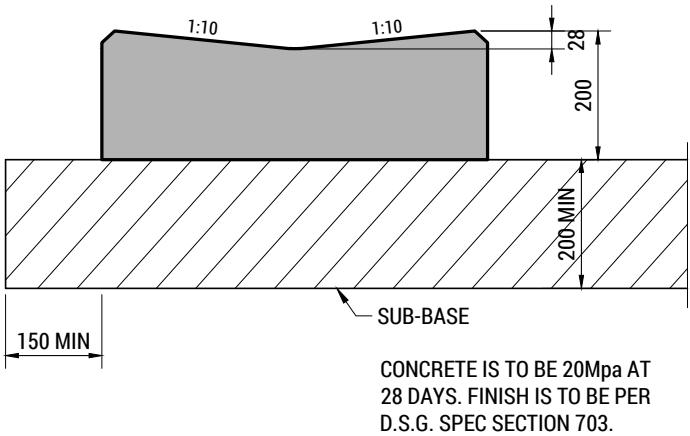


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0	DEVELOPMENTAL APPROVAL	KL	28-10-21							
REV:	ISSUED FOR / DESCRIPTION:	BY:	DATE:	APPROVED: R.JESSON	ACRED. No: CC5848I	DATE: 28-10-21			SCALE: 1:200	SHEET SIZE: A3 DWGs IN SET: -
								PROJECT No: 210073	DWG No: C422 REV: 0	



D01 NEW TO EXISTING HOT MIX TRANSITION

SCALE 1:20
MIN CBR 4% (CONTRACTOR TO CONFIRM ONSITE)



D03 TYPE VEE DRAIN

SCALE 1:10
REFER IPWEA STD DWG TSD-R14-v3
FOR APPROVED KERB & CHANNEL
PROFILES & DIMENSIONS

D02 HOT MIX PAVEMENT - ROADWAYS - PAV-A

SCALE 1:10
MIN CBR 4% (CONTRACTOR TO CONFIRM ONSITE)

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