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## Joint Witness Statement Urban Design and Flooding

Waitākere District Court – New Courthouse Project [FTAA-2508-1096]  
19 February 2026 - 9.30am to 2.30pm

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Facilitated by: Dave Serjeant [DS], Planner and Independent Planning Commissioner  
Recorded by: Danielle Casey, Project Manager, The Building Intelligence Group

### Attendance

The list of participants for this expert conferencing is included in the schedule at the end of this Statement.

### Basis of Attendance and Environment Court Practice Note 2023

All participants agree to the following:

- (a) The Environment Court Practice Note 2023 provides relevant guidance and protocols for the expert conferencing session;
- (b) They will comply with the relevant provisions of the Environment Court Practice Note 2023.

### Statement Format

Questions are set out in a box.

Attribution of statements is according to the initials [XX] of the participant as per the schedule.

Council responses are distinguished by shading.

Prior to the conference the applicant helpfully provided pre-prepared answers (the 'interim document'). These are inserted into the record and are attributed to experts accordingly.

### Matters Considered at Conferencing – Agenda and Outcomes

#### Flooding

[1] Given the updated flood modelling, including 10yr, 50yr and permeable grate 100yr rainfall event, do the Applicant and Auckland Council consider that there are upstream effects that are to be addressed due to the potential/proposed development of the NoR site? A response is sought both generally and in relation to the examples in (i) and (ii) below.

Response:

**PW:** Considered there to be benefit in going through the alternative scheme (being the scheme with the more significant effects).

**MS:** Graphics shared. Main difference between what we've submitted as modelled in Jan-26 post council comments and the alternative scheme is a greater cross section flow area along the westernmost corner. To allow the water that is actually blocked by the impervious wall to have greater cross sectional flow area, thereby reducing the total impact on the personal flood plain, the alternative scheme has allowed for about a 20-metre-wide gap along the southeastern boundary for water to flow underneath the building to the low point on along the northwest of the site. Greater cross sectional flow area then allows as well for water to basically flow past the building on the far western part of the site. Both schemes (as-lodged and alternative) are being proposed, and we will figure out which one we go for during detailed design.

**JW:** In terms of where the Council are, it's interesting to understand the updated modelling of both the alternative scheme and the as-lodged scheme updated since the Council commented on the scheme 22.01.26. Interested in difference of both the as-lodged and alternative schemes subject to the new modelling. Offsite effects are of greater scale than what were modelling for the as-lodged scheme when the Council commented on 22.01.26. The version the Council commented on focused on a change in the extent within the church access way. There looks to be greater depths and other changes of flooding particularly around the Alderman café, the Road reserve of Edmonton Road and Alderman Drive, other properties on Edmonton Road, in addition to the properties specifically identified by this question.

**MI:** Council comments submitted to panel are on the as-lodged scheme, there has been subsequent changes to the proposal that we are now discussing.

**PW:** Response below as set out in the interim document does respond to these matters. We are seeing differences of up to 160mm. Outcomes from as-lodged scheme are not wildly different.

**MS:** The as-lodged scheme in November increased the overall flood levels by 30-50 mm along the eastern most corner of site. The as-lodged scheme was revised where the foundations under the building are unchanged, but with the inclusion of impermeable walls along the west / southwestern facades. Additionally, a minor increase in the impervious facade was implemented along the east. The as-lodged solution therefore allowed for a ~20m opening along the southeastern facade.

**HJ:** Terminology 'as-lodged' did introduce some confusion for us in preparation for conferencing and I think it might help to clarify. Council's assessment is based on ACH Flood Report dated 15 September. 'As-lodged' modelling appears to demonstrate a different level of effect. A third iteration of flood modelling results are presented which is referred to as 'alternative scheme'.

**MI:** Considers 160mm difference between pre and post is a significant impact. Best to spend some time understanding. Agree that there are upstream effects that need to be addressed.

**DS:** Panels key concern is with the additional information, needs to be sure that additional information is reflected in NOR conditions and how these address the building design and civil infrastructure.

- a) With reference to ACH Flood Assessment Report addendum filed on 13 February 2026, Section 3.7 & 3.8:
- i) There is an increase in flood footprint in both assessments, however no assessment as to what that means for Takapu Street or the surrounding environment.
  - ii) Regarding the Top Water Level (TWL) increase from pre-development:
    - The as-lodged scheme = 10-20mm with 140mm relative to pre-development
    - The alternative scheme = 10-120mm with 160mm relative to pre-development

Response:

**PW / MS:** The updated ACH Flood Assessment confirms that the alternative scheme results in a conservative increase in upstream flood level (top water level) of approximately 160 mm relative to pre-development conditions. It is noted that Takapu Street has existing flooding with depths ranging from 500mm to 2m and therefore this 160mm difference should be considered in relation/ context to the existing flood risks/hazards.

- Properties at 1/2A, 2/2A, and 3-3E Takapu Street experience significant inundation in the pre-development scenario and are classified Hazard Vulnerability H3 (unsafe for vehicles and people). 3-3E are classified as Hazard Vulnerability H3. The remainder of the properties fall within H1 and H2. The proposed development will not increase the Hazard Vulnerability for any property. Properties 1/2A and 2/2A Takapu Street are classified as damage state DS3 under existing conditions under which approximately 50% of the building is expected to be damaged. The only property experiencing an increase in Damage State, from DS1 to DS2 is 2 Takapu Street. This is detailed in the reporting.
- The assessment concludes the proposal does not change the Hazard Vulnerability category for these properties. While depths increase, the Damage State classification changes for one property only (2 Takapu Street).
- It is also understood that several of the most affected properties (including 1/2A and 2/2A Takapu Street) sit within an Auckland Council buyout scheme due to

existing flood liabilities, which reduces the sensitivity of the receiving environment to these marginal changes.

- We note that these measures are not included in our assessment to date and therefore consider the assessment that's been undertaken as conservative in nature.

**MI:** If they are in the council scheme it does put a slant on the effects assessment (risk assessment in terms of the land use through acquiring some of the properties within Takapu Street and they have been categorised as category 3 which is a buyout scheme). Council's intention is that those properties would be retired from residential use and the building removed. Which properties are or have been acquired by Council needs to be considered to allow those effects assessments to be carried out. Can confirm that the properties on the southwestern side of Takapu Street being 1/15 and 2/15 and 1 Takapu Street have been categorised as C3 and are within councils proposed buyout scheme. But no information on the properties on the other side (such as A2 / 2A within the assessment or response. Action with MI to confirm with Council flood recovery teams about what specific properties are included.

**PW:** MI what is your position on our response in terms of classification and looking at the effects in a broader view opposed to just looking at changes in depth.

**MI:** A two-part question that we're being asked to consider by the panel, is do we consider there are upstream effects and I think the answer is yes and believe it was probably the same from your (PW) perspective. My perspective is that 160mm is a significant increase and effect. Albeit that it doesn't change the hazard category based on the information we've received within the interim response to the JWS provided by Barker and Associates. But these are very broad categories and the 160mm is an observable change in flood levels and will increase the frequency that those properties would be subject to floor inundation.

**PW:** Noting that 160mm is a single value at this location. The values change depending on the exact location. Acknowledge there is a change but given risk and flooding experienced at this location on the existing properties already under the predevelopment state and range from 500mm-2m, considering the wider flooding context here I disagree that the effect is significant in nature. The only change observed with regards to change in hazard / risk is 2 Takapu Street and that the property already itself experiences significant flooding in the existing state.

**HJ:** Council have identified that there is potential increase in the downstream environment – Alderman Café as well as upstream environment compared to ACH Flood Modelling Report dated 15 September.

**DS:** General question: does Alderman café get flooded every time?

**MS:** Confirmed that the Alderman café is located on a fairly high hill compared to the rest of the flood model. Due to the elevation of the existing ground, the increase in flood depth will not have a significant impact.

**JW:** 23 Jan flood impact assessment included new modelling of both the as-lodged and then introduced alternative scheme. The post development scenario shows that there's a small increase in flooding extent in relation to café in both scenarios as-lodged and alternate in comparison to the Councils previous review position on the as-lodged scheme previously modelled. It shows in the PC120 hazard classification applied to this new modelling, which the applicant team can speak to. Other areas to look at are the depths in the Edmonton Road and Alderman Drive. Changes in the modelling of the church accessway on the eastern boundary to be discussed.

**MS:** Refer to Appendix E of the flood assessment (23 Jan 26) submitted as part of response to Minute 2, this gives some level surround the site of all areas and it basically compares both the Healthy Waters model and our predevelopment models to the as-lodged and alternative schemes based on the model information. We see an increase of 20mm along the westernmost boundary at Alderman Drive café and the alternative scheme we see a drop of about 30mm – this is specifically for the 100-year event.

**MS:** This is within the flood report. Allowed for both the upstream catchment and Takapu Street which includes the church access along this edge. Flood depth on the church access along this edge increases by 150mm along the southeastern corner which then marries the existing flood levels along the corner over there. For context, the vehicle crossing for the church experiences 0 to 80 mm pre-development flood depth, with flood depths reaching approximately 350 mm along the accessway further downstream. Post development, the vehicle crossing will experience additional flooding where the depth is up to 150 mm, with flood depths along the driveway remaining at approximately 350 mm. The Alderman drive café experiences a 20-50mm in flood depth increase which has a minor horizontal increase. To reinforce, the café is located at a high point and therefore the minor increase in flood depth will not have a significant impact. When reviewing the upstream pre-development floodplain within Takapu Street, the sites pre-development experience flood depths of between 500 mm to 2 m. The 160 mm increase in relation to the predevelopment flood depths is considered to be minor.

b) What conditions could be included in the NoR to ensure that the Outline Plan of Works (OPW) addresses potential effects of flood events?

Response:

**MS/PW:** Consider that the existing conditions already address these key matters given:

- Earthworks optimisation - Require the final earthworks design to incorporate smoother transitions between channels and additional retaining walls to allow for greater cross section flow area around and under the building. The ACH

assessment indicates this has the potential to reduce post-development water surface elevations by up to 50 mm.

- There is already a requirement that the final building design to maintain the cross-sectional area and opening geometry modelled in the alternative scheme, including:
  - Under-croft channels: 5m rectangular and 8m trapezoidal, and
  - Opening widths: 20m to ensure the conveyance path is not further restricted.

**HP:** Clarification on Condition numbers – General accordance with condition 12 requiring adherence to the Civil Infrastructure report and there are number of other flooding conditions that require works to be in accordance with the ACH flooding report.

**AN:** Condition 12 is general accordance condition. New Condition X flood modelling. Condition 16 Flood emergency plan. Condition 17 Building flood barrier and fencing design.

In summary, condition framework includes a combination of specific design requirements then further detailed design requirement outcomes to be addressed at outline plan of works stage.

**MI:** Panel has question around those offsite effects; we need to make sure that our responses are focused on those offsite effects rather than the flood emergency plan which deals with the actual building and occupants. Conditions from my perspective seem to be more related to those offsite effects and how you are looking to manage those.

**PW:** Intention of response is to have the flood effects that have already been demonstrated in the ACH reporting as the baseline in terms of effects and cannot be greater than what's already been demonstrated. Detail cannot be any worse than the recorded position.

**MI:** Reading of the condition is that it would allow a further increase in flood depths of velocities as long as it didn't step into different categorisation. New Condition X is the key one because it does talk around that offsite effect and no increase in terms of what gets approved by the Panel as a baseline. Suggest changes to Condition X are needed to remove the reference to "hazard". Parties agree to work through amending this condition.

[2] The ACH assessment has found that the building and landform will be subject to minor consequence during 100yr rainfall event effects. However, the specific velocity associated with the landform and building footprint has not been identified. What is the remaining risk of minor consequences if conditions are included that direct the design of the landform and building?

- a) Is it appropriate to apply conditions to minimise the residual risk, or would a design requirement be more appropriate?

**PW/MS:** Flood velocities through the under-croft are significant due to the channelised flow path, exceeding 2 m/s in some areas (up 3m/s under the building and 4.4 m/s along the northwestern boundary, directly north of the piles), as shown in Figures 1 and 2 [attached]. There is potentially residual risk due to structural scour and debris loading on the piles. In our view, the buildings safety is dependent on pile performance during high-velocity events, and a condition could be included to have this matter addressed during detailed design stage (see suggested condition wording below).

b) If conditions are appropriate, what conditions can be placed to ensure the residual risk is minimised to the building and landform?

Response:

**MI:** Suggest the reference to pile design in building foundation and needs to be broadened to consider other structural elements.

**MI/PW:** Parties agree to change condition to:

Provide a statement from a suitably qualified structural engineer confirming the pile design **and other structural elements** can withstand the peak flood depth and velocity for the required design life, explicitly accounting for drag forces and debris loading.

[3] With respect to the hazard risk to occupants, there is a reliance/reference to safe egress. The ACH assessment reports circa 500mm flood depth in the egress route to Edmonton Road via the eastern vehicle ramp. However, the Flood Emergency Management Plan (FEMP) also references that parties within the court should stay in place.

What mechanism is there for the stay in place to be enforced?

Response:

**PW/MS:** The “stay in place” approach is implemented through the Flood Emergency Management Plan (FEMP), which is a required condition of the designation.

The updated FEMP (Rev 3.1) already includes:

- Trigger threshold: Implementation initiated at Severe Weather Warning (Orange).
- Operational delivery: The Flood Response Team is responsible for implementing the response, including lockdown of egress routes and communications to occupants.
- Physical reinforcement: Mechanical flood barriers and signage discourage entry into the high-hazard under-croft area.

**PW:** Condition explicitly states in the plan that a shelter in place approach is prioritised. However, we didn’t want to dismiss the egress approach because the modelling work that ACH have done shows that the peak of the flooding recedes after an hour and a half which means that you can get egress. The other thing is that the main storm in terms of

the main flooding is not predicted to happen as per the flood modelling until about 13 hours and 40 minutes after the storm occurrence. In terms of the timing there is an opportunity to evacuate people early. Shelter in place is in case egress is not required.

**MS:** East vehicle crossing receives a flood depth inundation of 400 to 500 approximately 13 hrs and 40 mins after the storm occurrence. Then recedes back to less than 400 / 500 mm about 50 mins after. Egress will be available until the vehicle crossing becomes inundated.

**MI:** The use of FEMPs is a relatively new approach is to help manage flood risk within Auckland and it's still evolving. Support the safe egress and believe the original reports that we reviewed had identified that there was safe egress at all times during the flood event. Keen to work with MoJ in terms of what controls would be in place to provide greater surety.

**TM:** The FEMP would be seen as extension of those management plans. From an operational point of view the Ministry and courthouses already have a process for managing fire egress and security threats and alike. This would be extension to this. Through the process of having security in place, we are well placed to address concerns and implement the FEMP.

**MI:** From a council perspective it looks reasonable in terms of the responses. Generally comfortable that the applicant has addressed the queries.

**PW:** There a whole bunch of other hazards happening in 100-year flood on roads and other places where it actually might be safer to stay in the building.

**MS:** Reinforce that egress from the site is available up to 13 hours and 30 minutes after the storm event where the vehicle crossing egress is in place.

**MI:** General advice from Emergency management is to evacuate if it is safe to do so. Identifying when it is no longer safe to egress the building is a key element of the FEMP to ensure that flood management plan to identify.

**PW:** Its important point everything we talked about here is 100-year 3.8 scenario worst case scenario.

a) Is a NoR condition appropriate for the FEMP to include a stay in place and not recommend egress?

Response:

**PW/MS:** The FEMP condition in place is appropriate and also explicitly requires that the plan:

- Prioritises a Shelter in Place strategy during the peak of a 1% AEP event, and
- Identifies specific triggers (for example, road overtopping at approximately 10.5 hours) where evacuation is no longer recommended.

It should be noted that whilst a shelter in place strategy is proposed that safe egress can still be made from the courthouse prior to the peak of the flood event and/or after the storm.

Inundation of the vehicle crossing starts 13 hrs and 35 mins after storm commencement. It reaches the 500 mm threshold approximately 13 hrs and 55 minutes after storm commencement and is fully accessible again 14 hours and 50 minutes after storm commencement.

[4] With respect to the site layout, as per Architectus as-lodged and alternative layouts, there are areas where car parking and infrastructure is at ground level.

Noting that assessments to date have focused on the safety of affected persons, what assessment has been undertaken for the safety of this car parking and infrastructure during the likelihood of flooding?

Response:

**MS/PW:** The design treats the ground level car park as a “sacrificial” flood conveyance area (the void).

- **Critical Infrastructure:** Critical services (including switchboards and communications) are not located at ground level within the flood conveyance area. Finished Floor Levels are set at a minimum 8.58 m RL, providing greater than 300 mm freeboard, which separates critical infrastructure from flood hazard.
- **Vehicles:** Vehicles parked at ground level during a 1% AEP event are acknowledged to be at risk. However, the FEMP provides an estimated 10 to 12-hour warning window before site access becomes constrained, with Edmonton Road overtopping modelled at approximately 10 hours 25 minutes.
- **Risk Management:** Vehicle risk is managed through the FEMP early warning framework and signage rather than physical exclusion. This is considered acceptable given the car park functions as an overland flow path during major events only.

**JW:** Comment on critical infrastructure that we want to understand is the location at the rear of the courthouse in both schemes, clarify what infrastructure will be within the location and if its critical infrastructure. Also, in terms of vehicles and the accessible parking bays there seems to be an acceptance in the applicants response that there is risk to accessible parking bays in terms of depths and velocities of hazards in that location. Can the FEMP provide management measures to mitigate and manage risk. What's the trigger point for vacating those accessible parking bays? Do we know who's in those public accessible bays?

**TM:** Critical infrastructure including the transformer are proposed to be brought within the building (above the required finished floor level at ground level within building). Associated building services will be at this level or above. At the rear of the building, we

have a number of tanks which include retention tanks for stormwater. Discussions have been had with Healthy Waters about those locations.

**JP:** Agree with TM. Not aware of other infrastructure located within the rear of the building. Possibly anchors for the tanks but they will be full so not moving and will be fenced so they will not go beyond the site.

**TM:** Clarification point on the major exit being the southeastern corner of the building, that is only the case in an event of the site being fully inundated. The FEMP notes there will be signage which will indicate that the site is subject to flooding, including where the accessible carparks are located. There will be a process to alert the building users including people who are parked in those spaces that the area may be subject to flooding during an event. If the parks are already in place, there will be a process in place to discourage people to not access that area including parked vehicles.

**JH:** Council often gets pushback from requiring authorities saying that it's their risk to manage and shouldn't be a condition.

**HJ:** It may be helpful to consider whether you can still utilise the identified site egress and whether the flood barrier underneath the building will still operate if critical infrastructure such as power impacted. I understand that the flood barrier would operate potentially without power. What are the implications for building users and their safety if there are impacts to critical infrastructure as a result of the hazards?

**TM:** This could be done in multiple ways including a UPS (uninterrupted power source) system which would allow power to be maintained to critical elements. Requirement could be included in the FEMP noting that power needs to be maintained to elements which assist with egress but not necessarily related to having a mandate that all infrastructure needs to be robust.

**TM:** FEMP condition (condition 16) to be revised to consider continuous power supply in the event of a stay in place scenario.

**AN:** Notes from a planning perspective this is more appropriate mechanism, and it avoids a third-party approval sitting on condition which would be problematic.

**MI/JW/JH:** Agrees it's appropriate but the FEMP will need to demonstrate that critical infrastructure is located and of a resilience to hazard to ensure that the FEMP can be delivered

**MI:** It is a MoJ document and advice is for them to review and update. Wouldn't want to put onerous conditions or reviews on the MoJ or Council.

**JW:** You've described how the accessible parking bays may be vacated but perhaps something that the FEMP would benefit from being explicit about in terms of the strategy around those accessible parking bays.

**TM:** Accessible carparking area will be managed like any other area on site,. Unsure if there's a need to specifically single out the accessible parks.

### **Urban Design**

[1] How can the urban design conditions be drafted to give greater certainty that the building will be designed and constructed to address/mitigate the effects of stormwater and extreme rainfall events? For example, should an additional specific section be included in the Urban Design Guidelines Framework (UDGF) on flood mitigation.

[2] If the UDGF condition addresses the above and all other aspects raised by Auckland Council, including reference to the underlying Auckland Unitary Plan provisions, do we still require the bulk and location condition 7? If no, please provide an agreed wording for condition 6.

Response:

**AN/JW:** Parties are agreeable to addressing these points in a separate meeting.

**AN:** Intention is that the conditions have been drafted to be implemented together. Does not consider that combining these into one condition would result in a material difference in how they are implemented and considers that one combined condition would become quite lengthy and more difficult from a legibility perspective. Approach has been to combine the identified building bulk and location standards necessary to mitigate potential building bulk and visual effects, in addition to demonstrating how the urban design guideline framework is addressed in the design, similar to how the AUP standards, matters of discretion and assessment criteria would be assessed and implemented in a standard RC process.

**ND:** I consider there are design outcomes that are relevant to consider when at the bulk and location stage and therefore combining Conditions 6 and 7 together could be effective towards understanding the outcomes required for the building envelope. Further to this, including a greater scope for provisions for 'new buildings' from the underlying zone should the bulk and location evolve beyond the submitted drawings. This would also be relevant if future exceedance of AUP Metropolitan Zone standards is proposed – noting the lodged drawings contained a small infringement of the HIRB to adjacent open space zone. The listed criteria of height, setback, and HIRB do not contain in themselves consideration of design outcomes.

Council has provided review of the UDGF and has made suggestions for how they might evolve to reflect better design outcomes commensurate to the prominence of the building.

**JW:** Council have previously provided drafting for a combined Condition 6 and 7 in the 22.01.26 comments. This reasoning for that is explained in the memo but consider that the finalised design of the scheme should be confirmed with reference to the UDA and indicative scheme and assessed holistically. Difference in position on zone standards being relevant in the condition. There's two design considerations that had been raised in the Urban design memo that condition should have a pathway to resolve. It's important to acknowledge that Council, when they provided comment on the condition, hadn't seen the alternative scheme and obviously the drafting of the condition now proposes that the alternative scheme becomes a baseline in the condition.

**SS:** When architects begin designing buildings with defined accommodation programme (function and areas) on a site, a typical methodology would be: Analysis of site and context, constraints and opportunities, including the planning controls.

Development of bulk and location studies, which involves establishing building footprints and arranging/shaping the building volume under consideration of the functional programme, area requirements and planning controls (such as height, height in relation to boundary and setbacks)

This is often an iterative process of creating options and testing them.

The AUP's built form controls are an important consideration during this design stage. Once a preferred option emerges, it will be further refined by adding detail, such as the finer articulation of the building envelope.

Architectus has followed this methodology when producing the bulk & location study for the Waitākere Justice Facility.

**AN:** Notes that condition wording perspective that the current Condition 7 has detailed the explicit standards so they can be read on a stand-alone basis. The Council's alternative suggestion includes a standard reference to the AUP provisions without being explicit and standing alone which is not consistent with other designations or good practice in terms of condition drafting.

**JH:** agree that conditions need to stand alone without referring to the AUP as the cross-referencing to the AUP numbering of standards or the standards within the AUP themselves could change. Agree that parties should meet and discuss further.

Confirmed in person: 19 February 2026

Expert's name and expertise	Party	Roles	Company/ Organisation	Expert's confirmation
Tom McLean (TM)	Applicant	Project Manager	TBIG	Yes
Tess Browne (TB)	Applicant	Project Manager	TBIG	Yes
Marnu Strydom (MS)	Applicant	Senior Civil Engineer	ACH consulting	Yes
Jéan Petherbridge (JP)	Applicant	Senior Project Engineer	Holmes	Yes
Pranil Wadan (PW)	Applicant	Senior Chartered Professional Engineer	Flowstate Consulting	Yes
Severin Soder (SS)	Applicant	Senior Urban Designer	Architectus	Yes
Hannah Pettengell (HP)	Applicant	Senior Planner	Barker and Associates	Yes
Alisa Neal (AN)	Applicant	Senior Planner	Barker and Associates	Yes
Joe Wilson (JW)	Auckland Council	Principal Project Lead	Auckland Council	Yes
Jo Hart (JH)	Auckland Council	Senior Policy Planner	Auckland Council	Yes
Nick Denton (ND)	Auckland Council	Principal Urban Design	Auckland Council	Yes
Mark Iszard (MI)	Auckland Council	Growth and Development Manager	Auckland Council	Yes
Hillary Johnston (HJ)	Auckland Council	Consultant Stormwater Specialist	Auckland Council	Yes

Note: Auckland Council as a Party includes all constituents of the Auckland Council 'family' of organisations.