



Determination 2019/025

Regarding the compliance of an infinity pool at 335C Te Hutewai Road, Raglan and whether to grant a waiver in relation to the means of restricting access

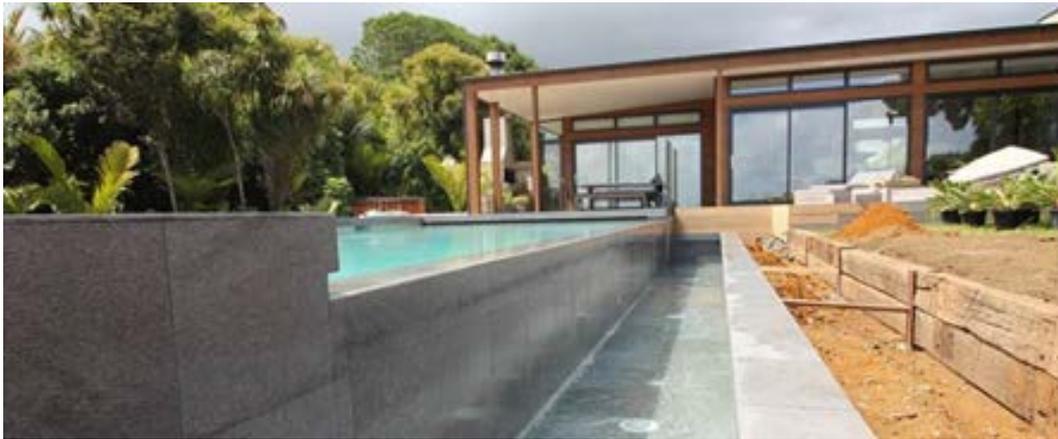


Figure 1: The pool's infinity edge and balance tank during construction

Summary

This determination considers the compliance of a residential pool with an infinity edge and balance tank with regard to the requirement for a physical barrier to restrict access by unsupervised young children. The determination also considers whether the installation of an alarm would achieve the performance requirements in Clause F9 and whether it is appropriate to grant a waiver.

1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ (“the Act”) made under due authorisation by me, Katie Gordon, Manager Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to this determination are:
 - M and R Taggart, the owners of the property (“the applicants”), acting through a firm who designed and built the pool (“the agent”)
 - Waikato District Council carrying out its duties as a territorial authority or building consent authority (“the authority”).
- 1.3 The determination concerns the applicants’ residential pool; in particular, its infinity edge and the adjacent balance tank² which was not constructed in accordance with the

¹ The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at www.building.govt.nz or by contacting the Ministry on 0800 242 243.

² The balance tank collects the overflow and stores water needed to maintain the pool level.

specified plans. The agent is proposing to add an audible alarm at the infinity edge and is seeking a waiver of Clause F9 Means of restricting access to residential pools³ in this determination.

1.4 The agent has also asked for the determination to consider the authority's refusal to grant a waiver or issue a code compliance certificate. However, the authority says it has not received applications for either of these.

1.5 Therefore, I consider the matters to be determined are:

- whether the pool as constructed, or with the addition of an audible alarm as proposed, complies with Clause F9 in respect of the infinity edge and balance tank⁴
- whether a waiver of Clause F9 is to be granted in this determination⁵.

1.6 In making my decision, I have considered the parties' submissions and the other evidence in this matter.

1.7 I note that the requirements of Clause F4 Safety from falling are also relevant where the pool has a drop of at least one metre, and this issue has been considered in previous determinations as it relates to infinity pools⁶. In this case the application for determination concerned compliance with Clause F9 only in relation to the infinity edge of the pool and the balance tank, and accordingly I have only considered the matter as described in paragraph 1.5.

2. The building work

2.1 The pool is tiled and made from concrete and reinforced steel. It measures 12m by 5m internally and has 240mm thick walls: at least two of these are flush with adjacent decking. An infinity edge on the pool's western side extends for about three quarters of its length. The wall at the infinity edge is 1.2m high when measured from the bottom of the pool to the highest point of the capping tiles, which slope back into the pool at an angle of approximately 30 degrees. I have not seen completed construction photographs, but the agent advises that glass barriers have been installed at each end of this infinity edge and in some other areas. The consented design also shows a narrow band of planting less than a metre wide around the walls of the balance tank (see Figure 2).

2.2 The pool also has a balance tank – a long, open channel to collect the water overflow – next to the infinity edge and extending the full length of the western side of the pool. The design approved for building consent⁷ shows the balance tank's outside walls at 1000 above ground level⁸ and with a 240mm wide flat top. The tank's internal width, as designed, is 1.2m. I have received conflicting information regarding the maximum depth of water in the balance tank: the approved plans and the as-built sketch show the depth as 400mm; the agent has submitted that the maximum depth is 390mm; and the authority states it measured the depth of water in the balance tank at 450mm during a site visit. In a submission in response to a draft of this determination, the agent clarified that the automatic levelling system was not

³ References in this determination to clauses are to clauses of the Building Code and to sections are to sections of the Building Act, unless specified otherwise.

⁴ Under section 177(1)(a) of the Act

⁵ Under section 188(3)(a) of the Act

⁶ Refer Determination 2010/097 Safety barriers to a swimming pool and a spa pool for relevant considerations.

⁷ 'Landscape concept plan M & R Taggart', undated, stamped "Waikato District Council Building Consent Number BLD1674/18 APPROVED"

⁸ Not 1.2m high as stated in the agent's initial submission

installed at the time of the authority's site visit, and installation was pending the outcome of the determination.

2.3 Figure 1 (at the start of this determination) shows the pool's infinity edge and balance tank during construction and before glass barriers were installed at each end.

2.4 Figure 2 below shows a detail of the consented design, while Figure 3 shows the as-constructed dimensions as supplied by the agent. As constructed, the balance tank's walls are 935mm high instead of 800mm, and the tank itself has an internal width of 1000mm instead of 1200mm. No formal amendment or minor variation to the building consent was sought for these changes to the approved design.



Figure 2: Balance tank and infinity edge as designed – detail of consented plans

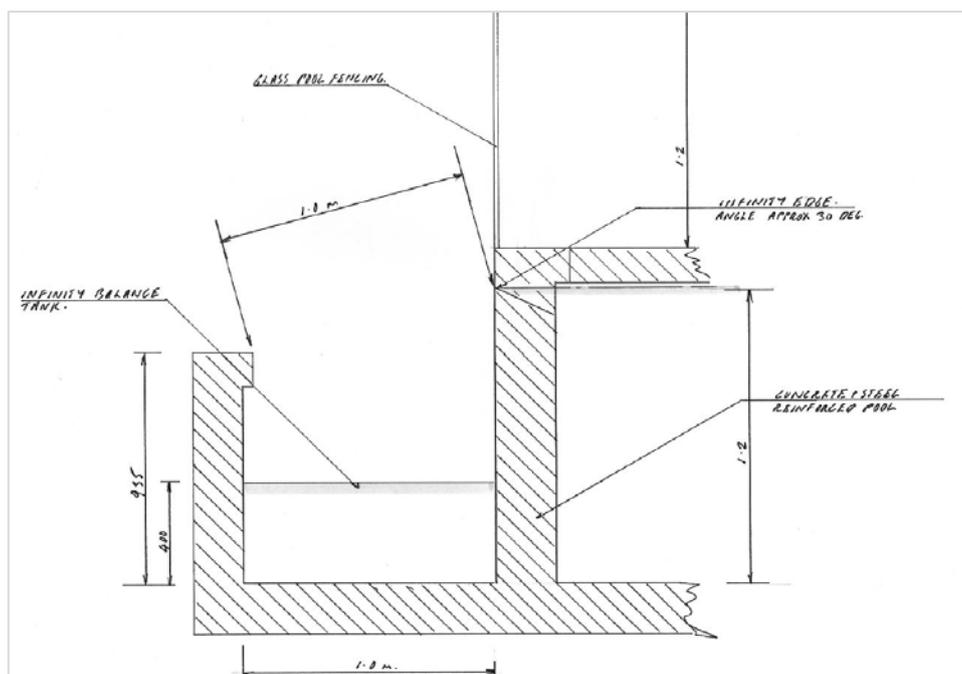


Figure 3: Balance tank and infinity edge as constructed – sketch from agent

3. Background

- 3.1 On 4 July 2018 the authority issued building consent BLD1674/18 for the applicants' pool. It was built from mid-late 2018 onwards.
- 3.2 In late January/early February 2019 an authority inspector visited the applicants' property to discuss various (unspecified) compliance concerns. The inspector said a formal inspection would need to be booked when the areas of concern were resolved.
- 3.3 The agent later rang another officer of the authority and asked to meet onsite for another opinion. According to the authority the same areas of non-compliance were identified and the authority discussed with the agent some "suggestions and options" for meeting compliance with Clauses F9 and F4.
- 3.4 On 13 February 2019 the agent emailed the authority asking for the authority's reasons why it was not open to the use of a laser alarm system⁹ across the pool's infinity edge, even though this type of alarm was acceptable for doors (where the house forms part of the pool barrier), noting that the authority had the ability to look at issues on a case-by-case basis.
- 3.5 The authority replied on 15 February 2019 and said in this case there were a number of non-compliances it could not ignore so it was not in a position to "approve an exception". It said the proposed laser alarm was not a physical barrier, would not work in a power failure, and was not directly comparable to an alarmed door as:
- ...when you open an alarmed door you have just entered the pool area and would still have to make your way to the pool. The area you are suggesting to cover with an alarm would mean the person is already in the pool.
- 3.6 The authority advised the agent that unless the non-compliance issues were addressed urgently the authority would have to issue a notice to fix¹⁰.
- 3.7 On 27 February 2019 I received an application for determination.

4. Submissions and the draft determination

4.1 The agent

- 4.1.1 The agent sent copies of the following with the application:
- the building consent
 - two versions (undated) of a landscape concept plan including the pool and adjacent decking
 - a sketch with dimensions of the pool's infinity edge, balance tank and glass barriers as constructed, and photographs of construction progress
 - an extract from what he described as guidelines for the Australian Pool Fencing Act, and which referred to Australian Standard AS 1926.1 – 2012¹¹.
- 4.1.2 The agent said the pool was designed with limited fencing so the view over Raglan Harbour would be a focal point. Now the pool was built, there was limited ability to make structural changes, and the applicants also wanted to keep fencing as minimal as possible in line with their original brief.

⁹ I have not seen any further specifications for this alarm.

¹⁰ Under section 164 of the Act

¹¹ AS 1926.1-2012: Safety Barriers for Swimming Pools - Western Australia

- 4.1.3 The agent is of the view that although the applicants' pool did not meet the requirements of the Building Code "there was no danger to a 5-6 year old entering the main pool". In the agent's opinion a waiver of the Building Code requirements for physical pool barriers was appropriate in this case because:
- The vertical wall of the infinity edge is 1.2m high, so it acts as a barrier restricting access to the pool. There is glass fencing 1.2m high up to the infinity edge so there is no access across this area other than over the edge tiles. This means the requirements to restrict access by children is being met.
 - The infinity edge tiles have an approximately 30 degree slope back into the pool, making it "impossibly difficult" to stand on given the type of tiles used. Access to this edge was also deterred by a water flow of approximately 4mm of water over its length that ran during daylight hours "summer and winter".
 - After measuring the steps of three 6-year old grandchildren and friends (at about 500mm, and up to 700mm if they stretched) the agent considered it would be very difficult for them to traverse the 1.0m width of the balance tank. The agent noted the Australian standard "which seems aligned with ours" only required a minimum distance of 900mm from a pool fence to raised objects. The balance tank walls are also lower (by 265mm according to the agent's sketch – see Figure 3) than the infinity edge.

Although the distance is 1 metre, this would require a step up to access the pool and the weight of the person is significantly harder to transfer from a low level to a high level. The weight is mainly on the back foot.
- 4.1.4 The agent proposed using a laser activated audible alarm (with battery backup) across the face of the infinity edge if required. The alarm type was not specified in the application for determination, but the agent said it would be activated if anyone tried to access the pool from the balance tank.
- "This is not a full solution to the issue but would enhance aspects I have put forward in considering a waiver. Looking at the [Building Code] audible alarms have become an accepted medium in conjunction with self-returning doors and childproof locks by councils when looking at fencing compliance in regards to direct access from the house into the pool area. This laser is an extension of this reasoning."
- 4.1.5 On 2 April 2019 I asked the agent to confirm the measurements of the balance tank. I also invited both parties to make a submission regarding the tank's compliance with Clause F9 given the consented plans and the agent's sketch showed this had a water depth of 400mm.
- 4.1.6 The agent replied on 10 April 2019:
- the as-built sketch (Figure 3) shows the correct dimensions of the pool's infinity edge and balance tank
 - the balance tank has an automatic top-up and overflow system, which was generally set to a depth of 375mm, and a dedicated overflow pipe at the 390mm mark.
- 4.1.7 The agent also said the construction error for the balance tank became obvious when the authority's inspector was onsite for another matter. Subsequent discussions with the authority had led him to apply to the Ministry for a waiver.

4.2 The authority

- 4.2.1 On 2 April 2019 I asked the authority for copies of the consented plans and any inspections recording the balance tank measurements, and I invited submissions on the balance tank's compliance (refer paragraph 4.1.5). I also asked the authority if it had received any applications for a formal amendment or minor variation to the consented plans, or for a waiver or modification of Clause F9's requirements, or a code compliance certificate – and if it had refused any such applications its reasons for doing so.
- 4.2.2 The authority replied on 11 April 2019 and confirmed that no inspection by the authority had been carried out during the pool's construction. The authority said it had not received any applications for an amendment to the building consent or for a waiver, and it had not refused to issue a code compliance certificate.
- 4.2.3 The authority described its site visits and communications with the agent regarding the pool's compliance. It said it measured the water depth in the balance tank onsite as 450mm.
- 4.2.4 The authority sent copies of the following with its response:
- the consented plans and specifications
 - photographs of the pool and surrounds, annotated “BLD1674/18 - 30/1/19” and with some additional notes and measurements
 - emails between the authority and agent 13-15 February 2019
 - a “Excavation, Siting and Foundation Inspection” record dated 5 April 2019¹² for, marked “Siting only”, which “failed on documentation only” and noted the pool structure had been checked by the engineer and a Producer Statement – Construction Review (PS4) had been requested
 - a “Residential Pool Inspection” report was marked as failed with respect to the pool barriers. Comments included:
 - Sides of pool and deck are under 1200mm; foot holds in the pool walls that are being used as a pool fence; Over flow from the pool is holding water 450mm deep; Block wall from the holding pool has been raised not as per consented plans and now has a maximum distance of 1000mm; Amended plans to be submitted to [the authority] for consent showing all changes.
- 4.2.5 The authority said it gave the agent some suggestions for complying with Clauses F9 and F4 but that these were dismissed by the agent who then mentioned a waiver. The authority advised the agent it would not entertain a waiver for the areas of non-compliance due to the nature and number of these, and that it was not unreasonable for new work to be fully compliant.
- 4.2.6 The authority also said it had advised the agent the pool must be made safe until the non-compliances were rectified. It had since revisited the property and observed some temporary fencing and a pool cover in place.

¹² I note the authority has said no inspections were booked for the applicants' pool, though this is disputed by the agent. Both these inspection records are dated 5 April 2019 for inspections the authority has said were carried out on 13 February 2019.

4.3 Draft determination

- 4.3.1 A draft of this determination was issued to the parties for comment on 8 May 2019.
- 4.3.2 The agent responded on 18 May 2019, reiterating the opinion that the pool as constructed does not represent a danger to a child gaining unsupervised access to the pool, and that the infinity wall is not able to be breached by a 5-year-old even if they are standing on the edge of the balance tank – though the agent’s submission later contradicted this statement by saying “the pool does not meet the code”. The agent also noted that the pool had been constructed as per the engineer’s Producer Statement Design (PS1).
- 4.3.3 The agent clarified that the automatic water levelling system for the infinity pool had not yet been installed at the time of the authority’s site visit. Pending the outcome of the determination, the system would be built into the structure of the pool and set to a depth of 375mm with a ‘maximum level of 390mm via a detached overflow pipe’, and on that basis the agent considered the balance tank did not require a barrier to restrict access by young children.
- 4.3.4 The agent also set out possible options to resolve the matter: either obtaining a waiver of Clause F9 for the pool as constructed or altering the pool wall. The agent proposed cutting the wall of the balance tank on an angle ‘so that it would not be possible to stand on the top surface’. In taking this approach the measurement from the infinity edge to the top edge of the balance tank wall would also increase to 1250mm, and the agent considered this would be a compliant solution. I advised the agent to put the proposal to the authority for its consideration and I have not considered the compliance of the proposal in this determination.
- 4.3.5 The authority responded on 27 May 2019, advising that it would not consider a waiver of Clause F9 as it ‘does not feel it is unreasonable for this new work to fully comply’. The authority also noted that there were ‘a number of non-compliant areas in regards to [Clause] F4 and [Clause] F9’, and recommended the applicants book an inspection. For clarity, I note that this determination only considers compliance of the pool barrier in respect of the infinity edge and balance tank.
- 4.3.6 The agent then advised by email on 28 May 2019 that the applicants had applied for an amendment ‘in relation to the fencing’ (which I have not seen), and the agent requested the determination process continue in respect of compliance of the infinity edge of the pool.

5. Discussion

5.1 General

- 5.1.1 To recap, the consented plans for the applicants’ pool include a balance tank designed with 800mm high walls and a 1200mm internal width. Instead, this tank was built with 935mm high walls and an internal width of 1000mm, making its walls closer to the infinity edge and calling into question whether this provides an adequate physical barrier to the pool.
- 5.1.2 The agent’s application for determination focuses on the infinity edge: the agent has suggested installing an audible alarm across this edge to reduce risk to unsupervised young children accessing the pool and has put forward arguments to support the request for a waiver of Clause F9’s requirements.

5.1.3 From the information provided to me there are 1200mm high glass barriers at each end of the infinity edge but no other fencing to restrict access to this edge. I understand that the applicants would prefer not to install any other structures on or around the pool or balance tank.

5.1.4 In considering the matters to be determined, I will discuss in turn:

- what Clause F9 requires and ways to comply with this
- whether the pool complies with Clause F9 as constructed
- whether the pool would comply with Clause F9 with the addition of an alarm as proposed
- consideration of a waiver in relation to the means of restricting access.

5.2 Clause F9 and ways to comply

5.2.1 The objective of Clause F9 is “to prevent injury or death to young children involving residential pools”. This clause applies to pools with a maximum water depth of 400mm or more. The terms “Pool” and “residential pool” are defined in the Act (refer Appendix A).

5.2.2 Clause F9’s functional requirement is:

F9.2 Residential pools with a maximum depth of water of 400 mm or more that are filled or partly filled with water must have means of restricting access that prevents unsupervised access by a child under 5 years of age.

5.2.3 Clause F9’s performance requirements include:

F9.3.1 Residential pools must have or be provided with physical barriers that restrict access to the pool or immediate pool area by unsupervised young children (ie, under 5 years of age).

F9.3.2 Barriers must either—

- (a) surround the pool (and may enclose the whole or part of the immediate pool area);
- (b) in the case of a small heated pool, cover the pool itself.

F9.3.3 A barrier surrounding a pool must have no permanent objects or projections on the outside that could assist children in negotiating the barrier.

...

5.2.4 Acceptable Solution F9/AS1 Residential Pool Barriers¹³ provides one way, but not the only way, to meet the requirements of Clause F9. The relevant sections of F9/AS1 include the following:

2.1 Pool barriers

2.1.1 A pool barrier can be a fence but may also take other forms of construction, such as a concrete block wall. ...

2.1.2 Pool barriers not on a property boundary shall have a height of not less than 1200 mm from the finished floor or ground level outside the pool barrier.

...

2.1.6 There shall be no ground features or objects outside a pool barrier within 1200 mm of the top of the barrier that would assist a child in climbing. Figure 2¹⁴ gives acceptable methods for evaluating this requirement.

¹³ Acceptable Solutions and Verification Methods are produced by the Ministry and, if followed, must be accepted by a building consent authority as evidence of compliance with the requirements of the relevant clause of the Building Code.

2.1.7 Any projections or indentions on the outside face of a pool barrier shall not have a horizontal projection from the face of the pool barrier greater than 10 mm unless they are at least 900 mm apart vertically.

...

2.3 Pool wall as a barrier

2.3.1 The outside face of a pool wall is an acceptable barrier if it is no less than 1200 mm high and complies with Paragraphs 2.1.6 and 2.1.7. ...

5.2.5 A pool design that departs from F9/AS1 in any respect will be an alternative solution¹⁵. In considering an alternative solution design a building consent authority will require further evidence to be satisfied that it meets the functional requirements and performance criteria of Clause F9.

5.3 Whether the pool complies with Clause F9 as constructed

5.3.1 Clause F9.3.1 requires the applicants' pool to have physical barriers to restrict access by unsupervised children. Clause F9.3.2(a) requires these barriers to surround the pool, including its infinity edge.

5.3.2 Setting aside for the moment the question of whether the balance tank requires a barrier to restrict access by unsupervised young children, I will first consider whether the existing structure forms a compliant barrier to the main body of the pool, specifically via the infinity edge. In making this decision I have considered whether the infinity edge is a compliant barrier, and whether the balance tank as constructed forms a compliant barrier.

5.3.3 As discussed above, one way to comply with Clause F9 is by meeting all the relevant criteria of Acceptable Solution F9/AS1. The balance tank is not in accordance with F9/AS1; its walls are less than 1200m high (refer F9/AS1 paragraph 2.1.2).

5.3.4 The pool wall at the infinity edge is 1200mm high so meets F9/AS1 (paragraph 2.3.1) in this regard. However, F9/AS1 also requires there to be no objects within a 1200mm radius of a pool barrier that would help a child in climbing over the barrier (paragraph 2.1.6).

5.3.5 In my view, the outside walls of the balance tank are climbable objects as they are only 935mm high and have 240mm flat tops that are wide enough to stand on. Applying F9/AS1 Figure 2 (which gives acceptable methods for evaluating the requirements of paragraph 2.1.6) it is apparent that the tops of these walls are within a 1200mm radius of the infinity edge. As a result, the design of the pool barrier is not an Acceptable Solution and must be assessed as an alternative solution.

5.3.6 In evaluating an alternative solution, it is useful to make some comparisons with the relevant Acceptable Solution, which will assist in determining whether the features of this pool are code-compliant. However, in making this comparison, the following general observations are valid:

- Some Acceptable Solutions are written conservatively to cover the worst case scenario. This means that they may be modified in less extreme cases and the resulting alternative solution will still meet the performance criteria and functional requirements of the Building Code

¹⁴ Refer to Appendix B of this determination.

¹⁵ The only other Acceptable Solution for Clause F9 relates to pool covers for small heated pools, and there is no relevant Verification Method.

- Usually, when there is non-compliance with one provision of an Acceptable Solution, it will be necessary to add one or more other provisions to compensate for that in order to comply with the Building Code.
- 5.3.7 The 1200mm radius in F9/AS1 within which climbable objects should not be present is to ensure that physical or built features will not assist a child in climbing over the barrier. The balance tank wall is within this radius and no other measures have been put in place to mitigate or compensate for this.
- 5.3.8 The agent is of the view that despite the balance tank wall being within 1200mm of the infinity wall it would be difficult for a child to step from the balance tank wall to the infinity edge. Given the distance between the balance tank and the infinity edge and that the infinity edge does not present a flat surface on which to stand, it may indeed be the case that it is difficult for children to step from the balance tank wall onto the infinity edge. However, the height of the balance tank wall combined with the distance from the infinity edge means that the balance tank wall would assist children in negotiating the barrier. There is nothing in the design limiting the ability of children standing on the edge of the balance tank wall from reaching and climbing from the balance tank wall over the infinity edge of the pool, and I consider that as an alternative solution it does not achieve the performance requirement.
- 5.3.9 I therefore conclude that the pool as constructed, and which is not in accordance with the consented plans, does not comply with Clause F9.3.1 or F9.3.2(a). The pool does not have a physical barrier that surrounds the pool and that restricts access to the pool by unsupervised children under 5 years of age.

The balance tank

- 5.3.10 Returning now to the question of whether the balance tank requires a barrier to restrict access by unsupervised young children. Initial information regarding the water depth varied, but the agent has since clarified that the water levelling system has yet to be installed and that once this is done the water level will remain at a depth below 400mm (refer paragraph 4.3.3).
- 5.3.11 The requirements in Clause F9 apply to residential pools with a maximum depth of water of 400mm or more ‘that are filled or partly filled with water’. It is apparent from the photographs provided that the pool and the balance tank have been filled (or partly filled) with water despite no compliant barrier being in place. Given the onsite measurement by the authority, and the agent’s statement that the water levelling system has not yet been installed, the requirement for a barrier applies to the balance tank at this time. Until such a time as either the water level is reduced to below 400mm or a compliant barrier is installed, there is a breach of Clause F9.
- 5.3.12 I note here that there may be solutions in common to address the non-compliances of both the infinity edge and the balance tank without needing major alterations to these features.

5.4 Whether the pool would comply with Clause F9 with the proposed alarm

- 5.4.1 I now consider whether the changes proposed by the agent would lead to compliance with Clause F9 without the need for a waiver. The agent has suggested installing a laser activated audible alarm along the face of the infinity edge which would be activated if someone tried to access the pool from the balance tank.

5.4.2 The agent says the use of audible alarms has become accepted in conjunction with self-returning doors and childproof locks when considering direct access from a house to the immediate pool area. In the agent's opinion the proposed alarm at the infinity edge is an extension of this reasoning.

5.4.3 Clause F9.3.4 certainly refers to the use of audible alarms in regard to doors leading to the immediate pool area:

F9.3.4

Where a building forms part or all of an immediate pool area barrier,-

- (a) any doors between the building and the immediate pool area must not be able to be readily opened by children, and must either –
 - i) emit an audible warning when the door is open; or
 - ii) close automatically after use:

...

5.4.4 This is not directly comparable to the agent's proposal. The alarm referred to in Clause F9.3.4 is a feature of a pool barrier – ie the door – and is not functioning as a barrier in itself. The purpose of an alarm on a door that forms part of the barrier to a pool is to prevent the breach of the barrier from continuing longer than is required for simply accessing the pool if doors are not designed to be self-closing. An alarm that is part of the door/pool barrier ensures that compliance is maintained, whereas an alarm installed along the pool's infinity edge (as proposed by the agent) is intended to compensate for the pool's lack of compliance.

5.4.5 Further, a door alarm provides advance warning if a young child enters the immediate pool area. An alarm at the infinity edge only provides warning as that child is very close to, or has even entered, the pool so is at immediate risk of injury or drowning.

5.4.6 I note that the agent says this alarm would operate during daylight hours. However, there is nothing in the Act or the Building Code limiting the time that pool access must be restricted.

5.4.7 In conclusion, an audible alarm does not constitute a physical barrier that restricts access to the infinity edge and I consider that the pool with the addition of this alarm would not comply with Clauses F9.3.1 and F9.3.2(a).

5.5 Waiver in relation to the means of restricting access to the pool

5.5.1 The agent's proposal (refer paragraph 4.1.4) involves the installation of a laser activated audible alarm along the infinity edge. I have already determined that this proposal would not comply with Clauses F9.3.1 and F9.3.2(a). Therefore, if the applicants do not wish to make any physical changes to their pool and immediate pool area (such as installing additional barriers) they will require a waiver of the relevant Building Code requirements – ie Clauses F9.3.1 and F9.3.2(a).

5.5.2 Under section 67 of the Act a building consent authority that is a territorial authority can grant a building consent subject to a waiver or modification of the Building Code. In doing so, it has to take account the principles of the Act set out in section 4.

5.5.3 A waiver may also be granted by way of a determination under section 188(3)(a). I now consider whether it would be appropriate to grant one in this case.

5.5.4 The power to grant a waiver or modification recognises that the Building Code cannot cover all possible situations, and provides the flexibility to address unusual

sets of circumstances. Previous determinations¹⁶ have established that a waiver or modification may be granted when “compelling reasons ... exist that support the view that a waiver is appropriate”¹⁷, and it is reasonable to do so in the circumstances.

5.5.5 Determination 2015/010¹⁸ described a list of factors that should be taken into account when considering whether a waiver or modification is reasonable:

- the extent and possible consequences of the non-compliance with the specific performance clause
- the availability of other reasonably practicable solutions that would result in the building work fully complying with the Building Code
- any special and unique circumstances of the building work subject to the waiver or modification
- the extent to which the modification or waiver will still be consistent with the purposes and principles of the Act
- the waiver or modification complying with the relevant functional requirement of the specific clause and meeting the objective of the Building Code.

5.5.6 I have considered these factors with respect to the applicant’s pool as follows:

- As discussed above, the provision of an audible alarm across the pool’s infinity edge is not a physical barrier surrounding the pool, as required by Clause F9.3.1 and F9.3.2(a). It only provides a warning when a young child is about to enter or has already entered the pool and is therefore immediately at risk.
- In my view there are other reasonably practicable solutions that would result in the building work fully complying with the Building Code. The applicants’ wish for minimal fencing appears to relate solely to aesthetics, but this is not a relevant factor in considering code-compliance.
- I do not consider this pool, which has been designed and built relatively recently, has any special or unique circumstances. Aesthetics, as I have noted, is not a factor in considering compliance, and I also agree with the authority that it is not unreasonable for new building work to be fully compliant.
- Safety of building users is a key principle of the Act, which is reinforced in Clause F9’s objective “to prevent injury or death to young children involving residential pools” and its functional requirement to prevent their unsupervised access, and in the provisions of the Act that concern the ongoing compliance of pool barriers¹⁹. In my view, a young child could feasibly gain access to the applicants’ pool and I do not consider the proposed alarm is sufficient for their safety.

5.5.7 Accordingly, I do not consider there are compelling reasons for a waiver or modification of Clause F9.3.1 and F9.3.2(a) with respect to the applicants’ pool. In my view a waiver or modification would not be appropriate to allow the use of an

¹⁶ See, for example, Determination 2006/085: Refusal of a code compliance certificate for a building with a plywood cladding system (7 July 2006).

¹⁷ Determination 2012/049: Regarding the refusal to issue a code compliance certificate for a 16 year-old house with monolithic cladding (12 July 2012)

¹⁸ Determination 2015/010 Regarding the authority’s refusal to grant a modification of Clause C3.4(a) of the Building Code in respect of materials used for internal surface linings at a new school hall (31 March 2015)

¹⁹ See subpart 7A – Special provisions for residential pools

audible alarm instead of a compliant physical barrier to this pool where it appears feasible to construct or erect a compliant barrier.

6. The decision

6.1 In accordance with section 188 of the Building Act 2004 I hereby determine that:

- the applicants' pool either as constructed or with the addition of an audible alarm as proposed does not comply with Clause F9
- it is not appropriate for this determination to grant a waiver or modification of the performance requirements of Clause F9 for this proposal.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 24 June 2019.

Katie Gordon
Manager Determinations

Appendix A: The legislation

A1 Building Act 2004

Relevant sections of the Act include:

7 Interpretation

In this Act, unless the context otherwise requires,—

...

pool—

(a) means—

- i) any excavation or structure of a kind normally used for swimming, paddling, or bathing; or
- ii) any product (other than an ordinary home bath) that is designed or modified to be used for swimming, wading, paddling, or bathing; but

(b) does not include an artificial lake

...

residential pool means a pool that is—

- (a) in a place of abode; or
- (b) in or on land that also contains an abode; or
- (c) in or on land that is adjacent to other land that contains an abode if the pool is used in conjunction with that other land or abode

A2 Building Code

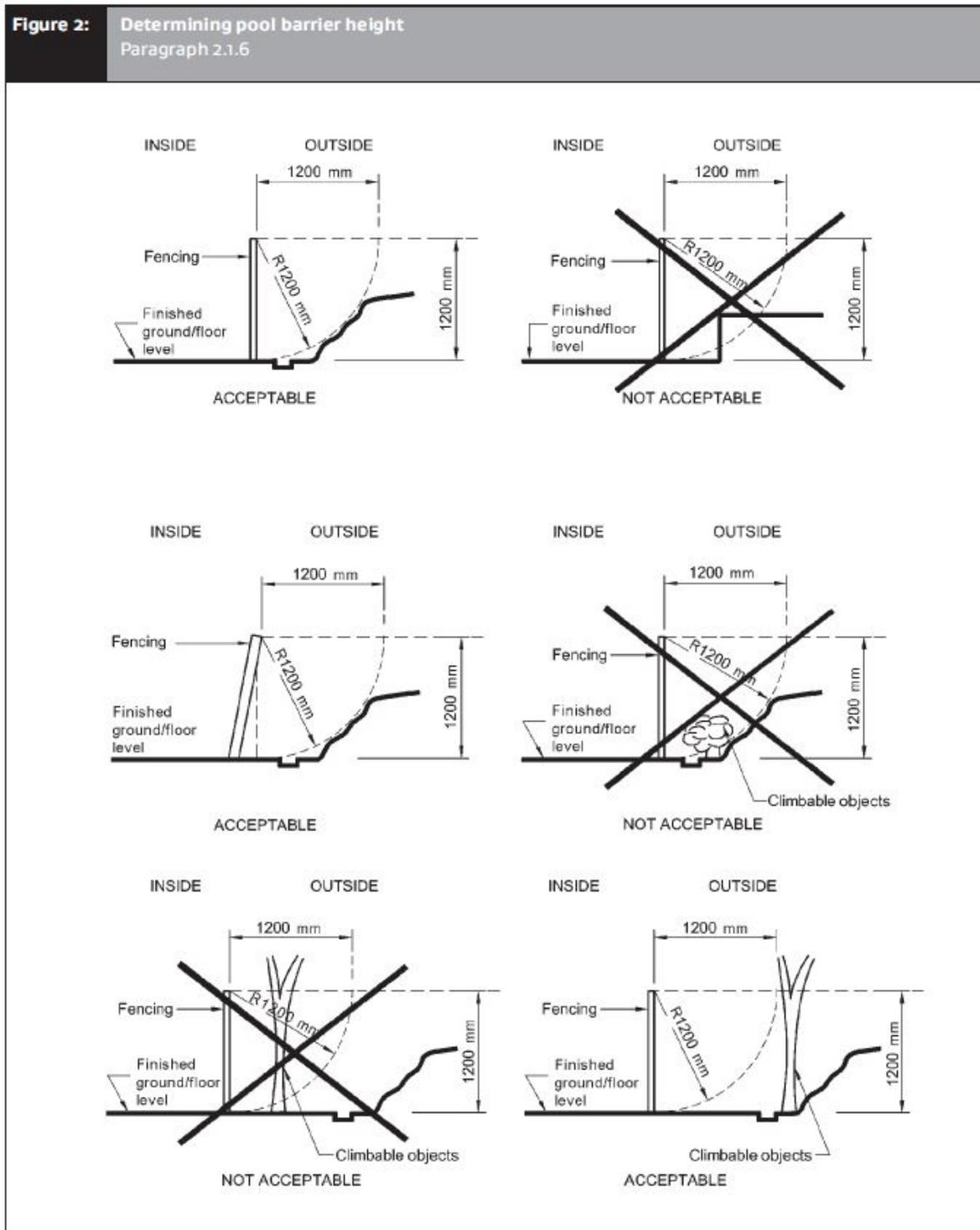
Relevant extracts from Clause F9 Means of restricting access to residential pools include:

Provisions	Limits on application
<p>Objective</p> <p>F9.1</p> <p>The objective of this provision is to prevent injury or death to young children involving residential pools.</p>	
<p>Functional requirement</p> <p>F9.2</p> <p>Residential pools with a maximum depth of water of 400 mm or more that are filled or partly filled with water must have means of restricting access that prevents unsupervised access by a child under 5 years of age.</p>	

<p>Performance</p> <p>F9.3.1</p> <p>Residential pools must have or be provided with physical barriers that restrict access to the pool or immediate pool area by unsupervised young children (ie, under 5 years of age).</p>	<p>In the case of a small heated pool, the means of restricting access referred to in Performance F9.3.1 need only restrict access to the pool when the pool is not in use.</p>
<p>F9.3.2</p> <p>Barriers must either—</p> <ul style="list-style-type: none"> (a) surround the pool (and may enclose the whole or part of the immediate pool area); (b) in the case of a small heated pool, cover the pool itself. 	<p>Performance F9.3.2(b) applies only to those small heated pools where the top surface of every wall of the pool is at all points not less than 760 mm above the adjacent floor or ground and the walls of the pool inhibit climbing.</p>
<p>F9.3.3</p> <p>A barrier surrounding a pool must have no permanent objects or projections on the outside that could assist children in negotiating the barrier.</p> <p>...</p>	
<p>F9.3.4</p> <p>Where a building forms all or part of an immediate pool area barrier,—</p> <ul style="list-style-type: none"> (a) doors between the building and the immediate pool area must not be able to be readily opened by children, and must either— <ul style="list-style-type: none"> i) emit an audible warning when the door is open; or ii) close automatically after use: <p>...</p>	

Appendix B: Acceptable Solution F9/AS1

Relevant figures from the Acceptable Solution include the following:



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