

Determination 2022/015

Date: 16 August 2022

Regarding the compliance of a 1200mm high masonry swimming pool wall with Building Code Clause F4 Safety from falling, and whether to grant a modification of Clause F4.3.1.

106 Kopanga Road, Havelock North

Summary

This determination considers the compliance of a 1200mm high masonry swimming pool wall with Building Code Clause F4 Safety from falling. This determination also considers whether to grant a modification of Clause F4.3.1, to permit a 1200mm change of level without a safety from falling barrier, in the circumstances of this case.

The legislation discussed in this determination is contained in Appendix A. In this determination, unless otherwise stated, references to “sections” are to sections of the Building Act 2004 (“the Act”) and references to “clauses” are to clauses in Schedule 1 (“the Building Code”) of the Building Regulations 1992.

The Act and the Building Code are available at www.legislation.govt.nz. Information about the legislation, as well as past determinations, compliance documents (e.g., acceptable solutions) and guidance issued by the Ministry, is available at www.building.govt.nz.

1. The matter to be determined

- 1.1. This is a determination made under due authorisation by me, Rebecca Mackie, Principal Advisor Determinations, Ministry of Business, Innovation and Employment (“the Ministry”), for and on behalf of the Chief Executive of the Ministry¹.
- 1.2. The parties to the determination are:
 - 1.2.1. W A Sangberg, as trustee for the property holding trust Napier Independent Trustees Limited, the owner of the property (“the owner”), and
 - 1.2.2. Hastings District Council (“the authority”), carrying out its duties as a building consent authority that is a territorial authority.
- 1.3. This determination arises from the decision of the authority to issue a notice to fix in relation to an aboveground residential swimming pool. The authority is of the view the pool, as constructed, does not comply with the requirements of Building Code Clause F4 Safety from falling. The authority considers the north-eastern pool wall (the ‘masonry pool wall’) requires a barrier to reduce the likelihood of accidental fall of more than one metre from the top of the masonry pool wall.
- 1.4. The owner believes it is appropriate to modify Building Code Clause F4.3.1 so that a barrier is only required when people could fall 1200mm or more².
- 1.5. The matter to be determined, under section 177(1)(a) of the Building Act, is whether the swimming pool with a masonry pool wall, as constructed, complies with Building Code Clause F4.3.1. In deciding this matter, I must also consider whether it is appropriate to grant a modification of Clause F4.3.1 under section 188(3)(a) of the Building Act.

¹ The Building Act 2004, section 185(1)(a) provides the Chief Executive of the Ministry with the power to make determinations.

² Section 67: Territorial authority may grant building consent subject to waivers or modifications of the Building Code. A **waiver or modification** allows territorial authorities to exercise judgment when dealing with unusual building compliance situations. A territorial authority can modify a performance requirement of the Building Code, so the functional requirement and objectives of the clause are still met.

Matters outside this determination

- 1.6. This determination will not consider authority's decision to issue the notice to fix. The determination will also not consider the authority's decision to issue the July 2017 building consent, as well as whether the authority ought to issue a code compliance certificate (which it has not done so). I have also not considered the Building Code compliance of any of the other building work covered by the building consent, other than masonry pool wall. Nor have I considered the compliance of the residential pool in respect of section 162C of the Act or Building Code Clause F9 *Means of restricting access to residential pools*.
- 1.7. This determination considers the matters as they stood at the time of application for determination. This determination has only considered the modification conditions proposed prior to the issue of the draft determination (see paragraph 4.2). Additional conditions raised during the determination process (see paragraph 5.46 and 5.47), have not been considered in this determination.

2. The building work

- 2.1. In May 2017, the owner obtained a building consent to make additions and alterations to an existing residential property. Specifically, for the addition of a bedroom, ensuite, new woodburning fire with wetback, stand-alone garage/workshop and new swimming pool.
- 2.2. The swimming pool is located on the north-eastern corner of the property. The north-eastern pool wall follows a curvature from its northern most point to its south-eastern most point (see Figure 1). The plans submitted with the building consent state the north-eastern pool wall is a "masonry swimming pool wall 1200mm high..." and is said to be an "effective pool fence³". The spot levels⁴ in the plan (see Figure 1) confirm the height of the masonry pool wall to be 1200mm.

³ In accordance with Building Code Clause F9 Restricting access to residential pools as required by subpart 7A of the Act.

⁴ Spot levels: masonry pool wall height of 17.650m versus the ground level height of 16.450m (above sea level).

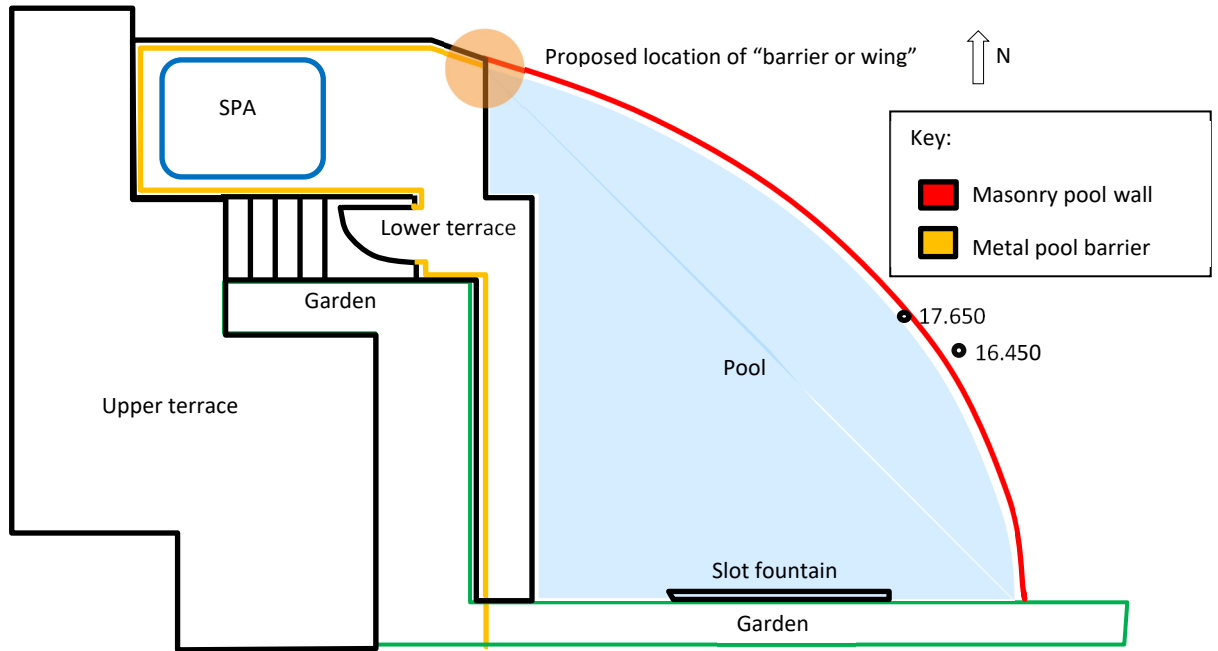


Figure 1 (above): Plan (Not to scale)



Figure 2 (above): top of the masonry pool wall



Figure 3 (above): masonry pool wall & wastewater treatment tank

2.3. The top of the masonry pool wall is 240mm in width and is inward sloping on a 15-degree angle (see Figure 2). The width, slope, and height of the masonry pool wall is the same along its entire length. The surface of the top of the pool wall has sloped

tiling. The pool is currently filled with water with the masonry pool wall protruding 155mm above the water level at its highest point, and 105mm at its lowest point. The pool is 1000mm deep at its northern end, and the centre of the pool has a ramp going down towards the southern end of the pool which is 1800mm deep.

- 2.4. To the west of the pool is a split-level terrace (see Figure 1). The upper terrace contains a paved patio area, and the lower terrace contains a spa and pool area. Five stairs lead from the upper to the lower terrace. Separating the entire upper and lower terraces is a metal pool barrier measuring 1200mm in height. At the bottom of the stairs, which leads from the upper and lower terraces, is a 900mm wide by 1200mm high gate. The gate has a latch. The gate opens inwards towards the stairs and away from the pool⁵; the gate is in the same position as the metal pool barrier. A thin strip of the lower terrace, 800mm wide, runs parallel to the western pool edge and widens out at the gate and spa area. Behind the metal pool barrier is a garden bed (which sits at the foot of the upper terrace). At the south end of the pool is a 'pool feature wall with slot fountain', and behind the slot fountain is a pool cover pit.
- 2.5. Beyond the masonry pool wall is a sloped grass/dirt area. This area accommodates a garden path leading to the north-eastern side of the property and comprises a wastewater treatment tank (see Figure 3).

3. Background

- 3.1. In March 2017, the owner engaged an architect to design the plans for additions and alterations to the property, as well as to prepare the building consent documentation. The building consent application was submitted on 11 May 2017, and on 28 July 2017, the authority granted building consent number ABA20170568 for *Additions and Alternation to Building, New Garage and Swimming Pool*.
- 3.2. On 8 July 2019, the authority conducted its final inspection and produced an inspection outcome report. The report noted the following:

8/7/19 cvdz (sic) Final inspection of addition to dwelling, new pool and workshop

Items outstanding

1. Increase the angle of the tiled pool edge so it cannot be walked or sat on. As it is there is a safety from falling issue of over 1m⁶
2. ...

⁵ As per the plan A01.

⁶ I understand this to mean increasing the sloped angle of the top of the masonry pool wall to reduce the likelihood of an accidental fall occurring (in seeking a solution to the non-compliance with Clause F4).

3. Lower the ground level outside of the pool so the pool wall is at least [1200mm] high⁷
4.

3.3. On 19 July 2019, the owner invited the authority to an onsite meeting to discuss ways of resolving the outstanding issues regarding the pool. At the meeting, the authority suggested the property owner do the following: firstly, raise the ground level below the pool to less than 1000mm; secondly, install a pool fence beyond the masonry pool wall; and thirdly, increase the sloping angle of the top of the masonry pool wall from 15 degrees to 30 degrees.

3.4. The owner rejected the council's suggestion because, in their opinion, erecting a fence beyond the masonry pool wall would block access to the rest of the property, as well as the wastewater treatment tank. If access to the wastewater treatment tank was blocked, the owner submits it would affect the ability to service the tank. The owner also rejected increasing the angle of the top of the masonry pool wall as this would be costly, and in their view, would not comply with previous Determination 2010/097. Relevantly, previous Determination 2010/097⁸ determined a proposal incorporating a pool wall with a slope of 30 degrees (or greater) would mean "it would still be possible for people to pull themselves up onto the wall from the pool and perch on its side, or to reach the top of the wall on a flotation device⁹".

3.5. The property owner offered their own suggestion, which included adding "barriers or wings" to the metal pool barrier to prevent people walking from the lower terrace and onto the masonry pool wall. The "barriers or wings" would be erected where the masonry pool wall intersects the lower terrace (see Figure 1). This would prevent a person accessing the top of the pool wall from the terrace and walking around the masonry pool wall and falling.

3.6. On 5 March 2020, the authority wrote a letter to the owner as follows:

the [authority] acknowledges that the pool at 106 Kopanga Road has been built in accordance with the... granted building consent plans for ABA20170568, however it has subsequently come to the [authority's] attention that the pool does not in fact comply with Clause F4 Falling from safety (sic)... in that the height of the pool wall [1200mm] is such that persons could fall more than [1000mm].

3.7. On 16 December 2020, the authority issued a notice to fix¹⁰ (NFT20200033). On 10 February 2021 the owner wrote to the authority as follows:

⁷ I understand this to mean lowering the ground level beyond the masonry pool wall to ensure the pool wall will comply as a residential pool barrier (in seeking a solution to any potential non-compliance with Clause F9).

⁸ Determination 2010/097: Safety barriers to a swimming pool and spa pool, 14 October 2010.

⁹ Ibid, at [8.14]

¹⁰ Under section 164 of the Act. A **notice to fix** is a statutory notice requiring a person to remedy a breach of the Building Act 2004 or regulations under the Act.

- 3.7.1. Raising the ground level and installing a fence beyond the masonry pool wall would block the only access to parts of the property, as well as the wastewater treatment tank
 - 3.7.2. Increasing the slope of the masonry pool wall to a 30-degree angle would be costly and, in previous Determination 2010/097, it was said a 30-degree angle would not prevent a person pulling themselves onto the wall and perching on its side, and
 - 3.7.3. As part of a modification of Clause F4.3.1, the ground below the wall being kept as a garden with no hard objects, was determined as compliant in the case of Determination 2010/097.
- 3.8. The date to achieve compliance with the notice to fix lapsed on 16 February 2021. On 30 April 2021, the Ministry received an application for a determination from the authority.

4. Submissions

The owner

- 4.1. On 11 June 2021, the owner provided submissions in response to the determination application. I have summarised those submissions in the paragraphs below.
- 4.2. Provided the below aspects (or conditions) are complied with, it is appropriate to modify Building Code Clause F4.3.1 so the pool wall as constructed and of 1200mm high is taken to comply without a safety-from-falling-barrier. The proposed conditions are as follows:
 - 4.2.1. the ground level below the masonry pool wall is built up so it is 1200mm high the entire length around the foot of the wall
 - 4.2.2. the addition of barriers or wings to the metal pool barrier to prevent people from walking from the lower terrace and onto the masonry pool wall, and
 - 4.2.3. the ground below the masonry pool wall be kept as turf/dirt with no hard objects.
- 4.3. The owner submits the options suggested by the authority on 19 July 2019¹¹ were unworkable and are the same as those rejected in Determination 2010/097¹². The owner says, provided the changes (or conditions) outlined above are made to the surrounding pool area, the proposal is “entirely consistent” with the solution provided in Determination 2010/097.

¹¹ see paragraph 3.4.

¹² In relation to increasing the angle of the pool wall to a 30-degree slope.

- 4.4. The owner is of the view that it remains unclear why the authority has not accepted the proposal¹³ outlined above, because “the [owner] based the proposal on Acceptable Solution [F9/AS1 and F9/AS2] for the NZ Building Code Clause F9¹⁴”. I note here, the owner is referring to paragraph 2.3 of Acceptable Solution F9/AS1 – “Pool wall as a barrier” which provides the following additional ‘commentary’:

When the top of a pool wall is 1000mm or more from the surrounding ground, Clause F4 ‘Safety from Falling’ of the Building code may apply if there is a potential hazard from falling over or off the top of the wall. Determinations 2010/085 and 2010/097 are applicable to this situation.

In other words, F9/AS1 contains commentary (which is not mandatory and is guidance only) that Determination 2010/097 is applicable to deal with the apparent conflict¹⁵ between the requirements of Building Code Clauses F4 and F9.

- 4.5. There are existing features of the pool and surrounding area that mitigate the risk of a person falling. Firstly, the metal pool barrier (installed between the upper and lower terraces) restricts access to the pool. Secondly, the masonry pool wall is 240mm wide and has a 15-degree inward sloping angle. These two features reduce the likelihood of a person climbing onto the wall from inside the pool.
- 4.6. The owner submits, even in the event of an accidental fall, the ground at the foot of the masonry pool wall is turf/dirt, rather than a harder surface such as paving or concrete, and this would reduce the likelihood of an injury occurring.
- 4.7. In comparison to the pool described in Determination 2010/097, the masonry pool wall in this case is more suited to a modification of clause F4.3.1. This is because the masonry pool wall is narrower¹⁶, and the pool wall in Determination 2010/097 was flat topped whereas the masonry pool wall in this case has a 15-degree sloped angle. Therefore, it would be more difficult to walk along the masonry pool wall, and it is less likely users would sit or perch on the wall.

The authority

¹³ The authority rejected the owner’s proposal on several occasions, both in writing and at an onsite meeting.

¹⁴ F9/AS1 Residential Pool Barriers and F9/AS2 Covers for small heated pools. Section 19 of the Act states compliance with an Acceptable Solution must be accepted by the authority as establishing compliance with the Building Code.

¹⁵ Clause F9 requires residential pools to be provided with barriers that restrict the access to the pool by young children, and Acceptable Solution F9/AS1 allows the outside face of a pool wall, provided it is no less than 1200mm high, to be an acceptable barrier. Clause F4 also applies to the pool wall, and requires a safety from falling barrier to be provided where people could fall 1000mm or more, which, in this case, could occur from the top of the pool wall being more than 1000mm high.

¹⁶ The width of the pool wall in Determination 2010/097 varied from 270mm to 450mm, whereas the masonry pool wall in this case is 240mm wide.

4.8. In its application for the determination dated 30 April 2021, the authority provided its submissions. The authority's submissions are summarised in the following paragraphs.

4.9. The authority considers, while constructed in accordance with the consented plans, the pool does not comply with the Building Code. In particular, the council believes it cannot be satisfied the swimming pool complies with Clause F4.3.1 of the Building Code, which provides that:

Where people could fall [1000mm] or more from an opening in the external envelope or floor of a building, or from a sudden change of level within or associated with a building, a barrier should be provided.

4.10. The authority submits it does not consider any of the exclusions (or rather the 'limits on application' as set out in F4.3.1¹⁷) to be relevant to the present situation. The council states, "As there is a [1200mm] sheer drop from the pool wall to the ground, the pool wall does not comply with [Clause F4 of] the Building Code."

4.11. An officer of the authority visited the site to conduct an inspection and was able to walk along the top of the masonry pool wall during the inspection. The pool wall was wide enough for this to occur. The authority submits the slope on the top of the pool wall is between 5 and 10 degrees, rather than 15 degrees as said by the property owner.

Draft determination

4.12. A draft determination was issued to the parties for comment on 9 February 2022.

4.13. The authority accepted the draft determination without comment.

4.14. The owner did not accept the draft determination. In rejecting the draft, the owner provided submissions. Some comments echoed submissions already made; however, several new considerations were raised, including the following:

4.14.1. In the two years since the pool was constructed, the owners have never witnessed anyone walk on the wall, and it is "not an inviting structure to sit or walk on".

4.14.2. The owner says, "the pool is built on the edge of a gully and the ground drops off steeply on the other side [of the pool]", therefore, the

¹⁷ Some code clause requirements do not apply to particular buildings, these are identified as 'limits on application' which outline how the code clauses apply to types of buildings or uses of buildings (or where the requirement of a clause would be incompatible with the use of the building). In this case, F4 Safety from falling – Limits on application: Performance F4.3.1 shall not apply where such a barrier would be incompatible with the *intended use* of an area, or to temporary barriers on *construction* sites where the possible fall is less than 3 metres, or to *buildings* providing pedestrian access in remote locations where the route served presents similar natural hazards.

construction of a fence beyond the masonry pool wall would block access to the rest of the property. The owner says, that is, unless a retaining wall were built beyond the pool wall to accommodate a track to access the rest of the property. The owner used a laser level to calculate a 1800mm retaining wall would be needed, the length of the masonry pool wall, to accommodate the track. Therefore, constructing a fence beyond the masonry pool wall, as well as the “other reasonably practicable solutions” mentioned in the draft determination, would be cost prohibitive.

4.14.3. The authority has issued a notice to fix for work carried out in accordance with the plans it approved with the building consent. “Had the authority performed its role with a reasonable level of care at the time, the owner would not be in this position” and would not have built a non-compliant pool wall. This situation has inevitably led to the owner incurring additional costs as a “direct consequence of the [authority’s] actions”. This ought to qualify as a “special and unique circumstance of the building work” in the Ministry’s considerations of the framework adopted in the determination.

4.14.4. The owner proposed an additional modification condition to support a modification of clause F4.3.1, namely the installation of an Impact Absorbing Playground Surfacing material. The owner proposed this surface be installed along the entire length of the footing of the masonry pool wall. The owner says this surface has a test result rating for a fall of up to 1600mm and should “provide sufficient protection in the unlikely event of anyone falling off the pool wall of [1200mm]”. This surface will accommodate the additional risk posed by a 1200mm fall, when compared to a 1000mm fall.

4.14.5. A modification incorporating the above, as well as the previously mentioned conditions, will meet the objective and functional requirements of the Code by “safeguarding people from injury by preventing them from falling”, and secondly, prevent injury from occurring in the “unlikely event of a fall”.

5. Discussion

Compliance of masonry pool wall with Clause F4.3.1

5.1. The matter to be determined is whether the masonry pool wall, as constructed, complies with Building Code Clause F4.3.1. Section 17 of the Building Act 2004 sets out that, “all building work must comply with the building code to the extent required by [the] Act, whether or not a building consent is required in respect of that building work”.

5.2. The objective and functional requirements¹⁸ of Clause F4 of the Building Code are provided in F4.1 and F4.2 respectively:

F4.1 The objective of this provision is to safeguard people from injury caused by falling

F4.2 *Buildings* shall be constructed to reduce the likelihood of accidental fall

5.3. The objective and functional requirements of Clause F4 reflect one of the purposes of the Act, which is to “ensure that people who use buildings can do so safely and without endangering their health”¹⁹ (see Appendix A).

5.4. The relevant performance requirements²⁰ of Clause F4 of the Building Code are set out in Clause F4.3.1.

F4.3.1 Where people could fall [1000mm] or more from an opening in the external envelope or floor of a *building*, or from a sudden change of level within or associated with a *building*, a barrier shall be provided.

5.5. The masonry pool wall provides a 1200mm sudden change of level, which presents a risk to users of the pool and the surrounding pool area falling 1000mm or more. The masonry pool wall has been constructed without a safety from falling barrier. The parties do not dispute a risk of accidental fall exists, and they also do not appear to dispute that the masonry pool wall does not comply with F4.3.1 of the Building Code.

5.6. I agree with the parties, the masonry pool wall as constructed, does not comply with Clause F4.3.1 of the Building Code.

Modification of Clause F4.3.1 proposal

5.7. I have concluded the pool wall does not comply with Clause F4.3.1; the way to resolve this issue of non-compliance is what the parties dispute. The authority does not believe a modification should be granted and the owner is of the view that it is appropriate for the authority to do so. I now must consider whether it is appropriate to grant a waiver or modification of Clause F4.3.1. The owner has outlined the proposed modified Clause F4.3.1 and conditions in paragraph 4.2.

¹⁸ The Objective of a Building Code Clause sets the social objectives from the purpose and principles of the Act. Section 7(1) of the Act defines **Functional requirements**; in relation to a building, means those functions that the building is required to perform for the purposes of this Act.

¹⁹ Building Act 2004 section 3(a)(i).

²⁰ Section 7(1) of the Act defines **Performance criteria**; in relation to a building, means qualitative or quantitative criteria that the building is required to satisfy in performing its functional requirements. Sections 16 and 18 set out that building work must comply with the Performance criteria set by each applicable Building Code Clause.

Waivers and modifications of the Building Code

- 5.8. Section 67 of the Act (see Appendix A) provides the circumstances where a territorial authority, that is a building consent authority, can grant a building consent subject to a waiver or modification of the Building Code.
- 5.9. The power to grant a waiver or modification recognises the Building Code cannot cover all possible situations and introduces the flexibility necessary to address unusual sets of circumstances.
- 5.10. Although section 67 confers powers on territorial authorities to grant building consent subject to waivers or modifications of the Building Code, section 188(1)(b) provides the Chief Executive its powers in making a determination, and under section 188(3)(a), may incorporate a waiver or modification of the Building Code.

Applying the purposes and principles of the Act

- 5.11. Before a territorial authority (and the Chief Executive) exercises its powers under section 67 of the Act to modify a Building Code clause, regard must be had to the purposes and principles of the Act²¹. These are set out in sections 3 and 4 of the Act (see Appendix A).
- 5.12. In Determination 2010/139²² it was found, when an authority is “exercising its powers under the Act, [it] must apply the principles of the Act listed in section 4 [of the Act]”. In Determination 2015/007²³, it was said “as a matter of general law, an authority must act reasonably in granting a waiver under section 67, in that any waiver or modification should impair Building Code obligations as little as possible” [and] “there must be a substantial justification for a proposed modification²⁴”. Both the Building Act and the Building Code place emphasis on health and safety, therefore in deciding whether to issue a modification of the building code, regard must be had to whether the modification will continue to maintain safety of users and prevent endangerment of health.
- 5.13. Section 4(2)(a)(i) has regard to the “role that household units play in the lives of the people who use them” and states the importance of “ensur[ing] that household units comply with the building code”. This section of the Act places strong emphasis on the importance of the household unit and emphasises the need for household units to comply with the Building Code.
- 5.14. In deciding whether it is appropriate to grant a building consent subject to a modification of the Building Code, an authority (and the Chief Executive to

²¹ Section 4(2) of the Act

²² Determination 2010/139 The refusal to grant a waiver of Building Code Clause F4 for a deck barrier, 23 December 2010.

²³ Determination 2015/007; Regarding the authority’s exercise of powers in refusing to issue a modification of Clause G6 for an apartment block, 2 March 2015 [6.4.1].

²⁴ Ibid, [6.4.1].

incorporate one in respect of a determination) must consider the specific circumstances of the proposal and engage in a balancing exercise between safety of all occupants, and amenity.

- 5.15. Further, as highlighted in Determination 2012/049, “compelling reasons must exist that support a view that a waiver is appropriate²⁵”, therefore I must be satisfied compelling reasons exist to modify Building Code Clause F4.3.1 in this case.
- 5.16. Given the decision is a balancing exercise, and each determination is considered on a case-by-case basis, I am not bound by decisions reached in previous determinations. If a particular conclusion is reached in one determination, including a decision whether to incorporate a modification, it does not mean the same conclusion would be reached in a subsequent determination.

The “framework” to determine whether a modification is appropriate

- 5.17. Determination 2015/010²⁶ sets out five factors as the ‘framework’ to take into consideration when deciding whether compelling reasons exist to grant a modification. This methodology was adopted in other determinations²⁷, and I accept it is an appropriate framework to assess whether it appropriate to grant the proposed modification of Clause F4.3. This is because the framework generally provides the appropriate factors that should be considered before excising the powers to issue a waiver or modification.
- 5.18. The application of the framework is a balancing exercise applied to the specific circumstances of an individual case, and no single factor should be considered in isolation.
- 5.19. The framework consists of the following five considerations:
- 5.19.1. The extent and possible consequence of the non-compliance with the specific performance clause.
 - 5.19.2. The availability of other reasonably practicable solutions that would result in the building work fully complying with the Building Code.
 - 5.19.3. Any special and unique circumstances of the building work subject to the waiver or modification.
 - 5.19.4. The extent to which the modification will still be consistent with the purposes and principles of the Act.

²⁵ Determination 2012/049; Regarding the refusal to issue a code compliance certificate for a 16-year-old house with monolithic cladding, 12 July 2012.

²⁶ Determination 2015/010; Refusal to grant a modification of clause C3.4a of the Building Code in respect of materials used for internal surface linings at a school hall, 31 March 2015.

²⁷ Determination 2015/022, Determination 2019/010 and more recently Determination 2021/018 and Determination 2021/026.

5.19.5. The modification complying with the relevant objective and functional requirement of the specific clause of the Building Code²⁸.

1. The extent and possible consequence of non-compliance with the performance clause

5.20. Users of the pool and surrounding pool area are likely to access and occupy the pool wall from within the pool, or from the lower terrace. Therefore, there is a possibility of perching on top of, or walking along the top of the masonry pool wall. A pool wall width of 240mm is sufficiently wide to accommodate a person perching or walking along the top of the wall. In addition, a sloped angle (whether it be 5, 10 or 15 degrees) would not prevent a person from occupying the top of the pool wall. The owner states the masonry pool wall is not inviting to sit or walk on. However, the width and the relatively gentle slope of the wall means users could occupy the top of the pool wall. Therefore, I accept people could fall one metre or more from the sudden change of level at the top of the wall.

5.21. The performance clause of F4.3.1 allows a fall from a height no greater than 1000mm. It could be argued the difference between a fall from a height of 1200mm, versus a fall from a height of 1000mm is minimal or perhaps immaterial. One may argue the additional 200mm would not present a significant increased risk of injury or death. Determination 2011/076 considered this question and states “the consequence of falling must be considered in granting a waiver of the requirement for a barrier²⁹”. The determination found the consequence of falling 1000mm onto a weir (described as a hard and unforgiving surface), means users could injure themselves, and any fall greater than 1000mm would increase the risk of injury. In this case, the consequence of falling 1200mm onto compacted soil (with very little, or no grass, or other vegetation to soften the fall) poses an increased likelihood of injury. Consideration also needs to be given to the range of possible landscaping that could occur over the life of the pool. It is possible, in the future, an owner may for instance, concrete the base of the pool wall therefore creating an even higher likelihood of injury.

5.22. It is also arguable that if a person were to occupy the pool wall from within the pool, this would not present “a sudden change in level” as specified in performance clause F4.3.1. This is because users would first need to swim up to the masonry pool wall, climb out of the pool and onto the wall, to encounter the change of level. Therefore, it could be said the change in level is not sudden or unexpected, rather users would have a degree of awareness of the change in level before they encountered it.

5.23. Although I do accept the change in level in this case would be less “sudden” than a change in level presented by, for example, a split-level decking, I do not accept a

²⁸ Ibid, [7.3.3].

²⁹ Determination 2011/076 Regarding the code-compliance of an infinity edge and a weir to a swimming pool at 15 Hanene Street, St Heliers, Auckland, 25 August 2011, [5.5.6].

person needs to climb out of the pool and onto the pool wall for the risk of accidental fall to exist. A person could fall from the pool wall from playing with equipment (such as inflatable airbeds and floatation devices), or simply from boisterous behaviour in the pool and a lack of sensible supervision. This is especially possible from the north end of the pool, which is only 1000mm in depth. I accept there is a risk of a fall occurring in these circumstances, and the change in level presented by the masonry pool wall does qualify as “a sudden change in level”.

2. The availability of other reasonably practicable solutions that would result in the building work fully complying with the Building Code

- 5.24. There are other solutions which may be available to the property owner to achieve full compliance with the Building Code. As an example, the owner could install a vertical glass screen, or other physical barrier, on top of (or very closely adjacent to) the existing masonry pool wall. If such a barrier were constructed on top of the masonry pool wall, regard must be had to Building Code Clause B1 Structure.
- 5.25. Alternatively, a vertical barrier could be constructed closely adjacent to the wall (with its footing in the soil below). If a barrier were constructed closely adjacent to the pool wall, regard must be had to whether it would satisfy the requirements of Building Code Clause F9 *Restricting access to residential pools*. The construction of a vertical barrier could easily satisfy the requirements of both clauses F4 and F9, and this solution would not be constrained by the existing pool design.
- 5.26. Another option might be to construct a horizontal barrier. This could be attached to the masonry pool wall (at a height of 1000mm) and protrude away from the pool. This design may be more complex in ensuring simultaneous compliance with both clauses F4 and F9.
- 5.27. Prior to applying for this determination, the authority suggested another potential solution to the owner of constructing a 1200mm fence (compliant with Building Code Clause F9) beyond the masonry pool wall and raising the ground level at the foot of the pool wall to 1000mm (to make the masonry pool wall compliant with F4). The owner says this is not a feasible solution for a few reasons³⁰. Upon review of the material, and the information which has come through after the draft determination was issued, I do not agree a fence beyond the masonry pool wall would be as difficult as the owner presents. I believe there are solutions that would not necessitate much further construction and would not impact access to the wastewater treatment tank.
- 5.28. There do not appear to be any other features of the pool, or its surrounding area, which would limit the owner from utilising these, or other, reasonably practical solutions resulting in full compliance with the Building Code. The owners’ preference for minimal fencing appears to relate to aesthetics, which is not a

³⁰ The owner says this option would be 1) be cost prohibitive, 2) be difficult to construct (as it would require a 1800mm retaining wall) as there is no site access for machinery to build the retaining wall, and 3) the fence would block access to the wastewater treatment tank.

relevant factor in considering whether to grant a modification. As noted previously, the decision to grant a modification must consider the balance between safety of all occupants and amenity.

5.29. I appreciate some options available will come at a cost to the owner, but I do not consider this to outweigh the need to maintain safety of users and prevent endangerment of health. I also note, in general, the broad range of options identified above would have been ones likely to have been considered had the requirements of Clause F4 and Clause F9 been applied at the time of the original design of the pool. Their retrospective design, and construction is unlikely to represent a significant increase in the total cost compared with an original design that complied with Clause F4 while also considering the requirements of Clause F9.

3. Any special and unique circumstances of the building work subject to the modification proposal

5.30. The owner's designer presented a non-compliant design, and the authority issued the building consent for a non-compliant design. The owner then proceeded with construction on the basis the proposed building work complied with the Building Code. The owner constructed the pool in accordance with the granted building consent and may now need to modify that design to make it compliant – this will come at a cost to the owner.

5.31. Previous determinations have exemplified circumstances which may qualify as "special and unique" to include considerations such as location, users and use of the building. I also consider the inconvenience and the financial impact of remedial works to be special and unique for the purposes of this framework. The framework emphasises the need to ensure buildings maintain safety of users, and although cost "could contribute to an assessment of reasonableness to grant a waiver [or modification]³¹" in some circumstances, it should not be considered in isolation. The inconvenience and financial impact of remediation work does not generally outweigh the need to maintain safety of users and prevent endangerment of health. Therefore, I do not accept this to be a reason to grant the proposed modification of clause F4.3.1.

4. The extent to which the modification proposal will still be consistent with the purposes and principles of the Act

5.32. The extent to which the modification will remain consistent with the purposes and principles of the Act is an essential, and perhaps the most important consideration in deciding whether a modification is reasonable. If a primary purpose of the Act, such as maintaining safety, will potentially be reduced as a result of the

³¹ Determination 2015/010 Refusal to grant a modification of clause C3.4a of the Building Code respect of materials used for internal surface linings at a school hall, 31 March 2015 [7.4.7].

modification, then the modification should only be granted if this reduction is minimal³².

- 5.33. In this case, if a modification of Clause F4.3.1 were granted, the primary purposes of the Act would be reduced in two ways. Firstly, a modification would reduce the extent to which people who use the pool can do so safely and without endangering their health, and secondly, it would reduce the attributes of the pool that contribute to the health and wellbeing of the people who use it. Further, the principles of the Act places particular emphasis on the role household units and emphasises the importance of Building Code compliance as it relates to the household unit. The pool does form part of the household unit.
- 5.34. To modify F4.3.1 to a fall of 1200mm would be inconsistent with the purposes and principles of the Act. Such a modification would increase the risk of endangerment to health and would create additional risk.

5. The modification proposal complying with the relevant objective and functional requirement of the specific clause of the Building Code

- 5.35. In deciding whether a modification is reasonable, consideration must also be given to the extent the modification results in a reduced level of compliance with the objectives and functional requirements of F4 of the Building Code.
- 5.36. The objective of Clause F4 of the Building Code is “...to safeguard people from injury caused by falling”, and the functional requirement is to ensure “Buildings [are] constructed to reduce the likelihood of accidental fall”. The objective and functional requirements of Clause F4 echo the principles and purposes of the Act; that is to safeguard users of buildings, and ensure buildings are constructed in a way that preserves users’ safety.
- 5.37. Adverse consequences from a fall from a height of 1200mm are more prevalent than if a person were to fall from a height of 1000mm. To modify clause F4.3.1 to a fall of 1200mm in this case, I believe, would limit the extent to which the building safeguards users, and would increase the risk (and severity) of an injury in the event a fall were to occur.

Determination 2010/097 and Determination 2015/010 case

- 5.38. In their submission dated 11 June 2021, the owner states the proposal they previously put forward to the authority (see paragraph 4.2) is “identical to Determination 2010/097”. The owner says, by comparison to the pool described in Determination 2010/097, the masonry pool wall in this case is narrower and is sloped at a 15-degree angle. The owner submits these features mean it is less likely a person will occupy, and fall from the top of the masonry pool wall when compared with the pool in Determination 2010/097. I am not bound by decisions

³² Ibid, [7.4.12].

reached in previous determinations and each determination is considered on a case-by-case basis. If a particular conclusion is reached in one determination, including a decision whether to incorporate a modification, it does not mean the same conclusion would be reached in a subsequent determination.

- 5.39. A modification of clause F4.3.1 was deemed appropriate in Determination 2010/097, however, the assessment criteria have been further developed since that decision was made. The factors to consider in deciding whether it is appropriate to issue a waiver or modification have changed over time. This is evident through Determination 2015/010 and the establishment of the “framework” discussed above. The framework highlights a shift in focus and places greater weight on considerations regarding safety of users of buildings. The framework established in Determination 2015/010 has been adopted in many subsequent determinations and gives due consideration to the principles and purposes of the Act, as well as the objective and functional requirements of the Building Code.

Conclusion

- 5.40. On the information presented to me, and having applied the above framework, I do not consider that there are compelling reasons for the modification of Clause F4.3.1 as proposed. Therefore, I do not accept a modification of Clause F4.3.1 is appropriate in this case. A modification of this Clause as proposed, for this building work, would represent an increase in the likelihood of injury or death and would be inconsistent with the principles and purposes of the Act, as well as the objectives and functional requirements of Clause F4 of the Building Code. There are other practical solutions available to the owner which would provide a code complaint solution. The fact the non-compliant design has been consented and constructed does not outweigh the need to maintain safety of users.

Matters not considered in this determination

- 5.41. After the draft determination was issued, the owner proposed a new condition in addition to those outlined at paragraph 4.2 - that is installing Impact Absorbing Playground Surfacing material at the foot of the masonry pool wall. The specifics of the proposal are unclear.
- 5.42. The new condition was raised by the owner late in the determination process, and it has changed the particulars of the original determination application. To avoid unnecessary delay and formality³³, this determination has not considered the new condition as part of this application. If the owner wishes to make a new determination application, raising this as a possible condition, they must put forward a full detailed proposal alongside a new determination application. Should the owner wish to change/alter their proposal, in the first instance, the authority, as the territorial authority who is a building consent authority (under sections 12 and

³³ Building Act 2004 section 186(1)(a).

14F), is responsible for granting building consents subject to waivers and modifications of the Building Code (under section 67 of the Act).

- 5.43. The new determination application can consider the Impact Absorbing Playground Surfacing material as a possible modification condition; however, it remains to be determined whether it would be appropriate to modify Clause F4.3.1 with the inclusion of this condition.

6. Decision

- 6.1. In accordance with section 188 of the Building Act 2004, I determine the residential swimming pool, as constructed, does not comply with Building Code Clause F4.3.1 Safety from Falling.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 16 August 2022.

Rebecca Mackie

Principal Advisor, Determinations

APPENDIX A: The legislation

3 Purpose

(a) To provide for the regulation of building work, the establishment of a licensing regime for building practitioners, and setting of performance standards for buildings to ensure that –

(i) people who use buildings can do so safely and without endangering their health

(ii) buildings have attributes that contribute appropriately to the health, physical independence, and well-being of the people who use them

...

4 Principles to be applied in performing functions or duties, or exercising powers, under this Act

(2) In achieving the purpose of this Act, a person to whom this section applies must take into account the following principles that are relevant to the performance of functions or duties imposed, or the exercise of powers conferred on that person by this Act:

(a) when dealing with any matter relating to 1 or more household units,-

(i) the role that household units play in the lives of people who use them, and the importance of –

(A) the building code as it relates to household units; and

(B) the need to ensure that household units comply with the building code

...

17 All building work must comply with the building code

All building work must comply with the building code to the extent required by this Act, whether or not a building consent is required in respect of that building work.

67 Territorial authority may grant building consent subject to waivers or modifications of building code:

(1) A building consent authority that is a territorial authority may grant an application for a building consent subject to a waiver or modification of the building code.

(2) A waiver or modification of the building code under subsection (1) may be subject to any condition that the territorial authority considers appropriate.

(3) The territorial authority cannot grant an application for a building consent subject to a waiver or modification of the building code relating to access and facilities for people with disabilities.