



Determination 2018/052

Regarding whether an automatic pool cover complies with Building Code Clause F9 at 320C Felton Road, Bannockburn, Cromwell



Summary

This determination considers whether the use of an automatic pool cover will comply with Clause F9 – Means of restricting access to residential pools of the Building Code. The determination discusses waivers and modifications, and the provision for automatic pool covers for small heated pools.

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 the determination are:

- the owner of the property, R Keillor (“the applicant”), and
- Central Otago District Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.

1.3 This determination arises from the decision of the authority to refuse to waive the requirement for pool fencing to allow an automatic pool cover to be used in its place. The refusal arose because the authority was not prepared to waive Building Code Clause F9² – Means of restricting access to residential pools (First Schedule, Building Regulations 1992).

1.4 The matter to be determined³ is therefore whether the use of an automatic pool cover⁴ without any other physical barrier to the pool or immediate pool area complies with Clause F9.

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 In this determination, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

³ Under sections 177(1)(a) of the current Act.

⁴ In the application form the applicant referenced the use of a sensor attached to the automatic pool cover. However, no information was provided and therefore I have not considered whether an automatic pool cover with a sensor would comply.

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

2. The building work

2.1 The approved building consent plans show a single level building with three bedrooms, living room, office, dining room, kitchen, laundry, bathrooms, attached garage, and a wine store (refer Figure 1). The building consent plans note a swimming pool that is 15m by 2.5m in width, with a proprietary “retractable slatted automatic pool cover” and a spa pool⁵ that has its own cover.

2.2 The technical literature supplied as part of the waiver application that was made after the building consent was issued, identified a proprietary automatic pool cover that complies with ASTM Standard F1346-91⁶, which is referenced in NZS 8500⁷ (refer Appendix A).

2.3 The automatic pool cover operates using an electrical motor, and can be operated manually when there is a loss of power. The automatic pool cover uses guide tracks to hold the cover in place that are installed in a recess in the pool wall. When the automatic pool cover is closed it will fully cover the pool.

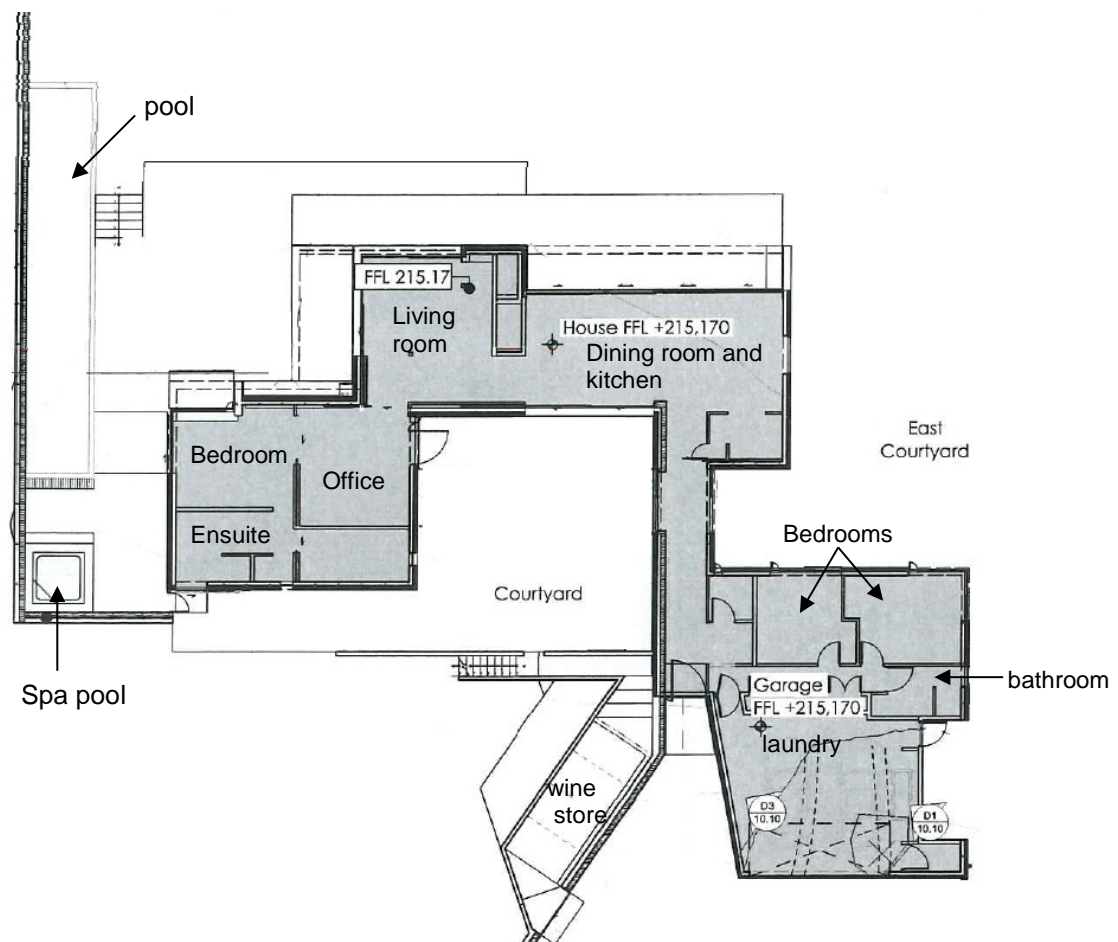


Figure 1: Site plan (not to scale)

⁵ The compliance of the spa pool is not in dispute.

⁶ ASTM F1346-91(2003) Standard Performance Specification for Safety Covers and Labelling Requirements for all Covers for Swimming Pools, Spas and Hot Tubs.

⁷ New Zealand Standard 8500:2006 Safety Barriers and Fences Around Swimming Pools, Spas and Hot Tubs. This standard is cited in the Acceptable Solution for Clause F9, (F9/AS1) in relation to establishing barrier strength.

3. Background

3.1 The authority received a building consent application on 3 February 2017 for a “New residential dwelling” from the designer. The drawings submitted with the application included a pool and spa pool. The authority used a “Swimming Pool and Fencing processing checklist” during the consent processing to assess if the proposed building work complied with the Building Code. The authority identified that the building consent application failed to answer the following questions from the Swimming Pool and Fencing processing checklist:

...Does the fence height specified comply?

Is fencing of the pool around the immediate pool?

Are the gate(s) and door(s) demonstrated to open outward away from the pool area and specified as self latching? Every door and gate must be fitted with a device to ensure that they automatically close and latch when they are released.

3.2 In a letter dated 24 February 2017 the authority sent a request for further information to the designer. Amongst the various questions, the authority queried the waterproof membrane to the swimming pool lining, and the inclusion of a vacuum break to the hose tap for the pool. However, the authority did not include the issues identified above regarding the physical barrier within the request for information letter.

3.3 On 5 March 2017 the designer responded to the authority stating:

We are still in the process of selecting a pool supplier/contractor. Although the engineer submitted these drawings as part of their package these were in theory only indicative, as the selected pool contractor will produce their own drawings.

3.4 On 13 March 2017 a building consent was granted for a “New three bedroom dwelling with attached double garage”. The approved building consent drawings include the pool with a “retractable slatted pool cover” and no pool fencing⁸.

3.5 On 23 March 2017 the designer contacted the authority regarding a separate application to waive the requirement for a pool fence because the applicant wanted to install only an automatic pool cover.

3.6 On 12 April 2017 the authority responded that the designer could apply for a consent and it would consider the waiver or modification of the barrier as part of the consent process.

3.7 On 13 April 2017 the designer responded as follows:

...we have already been granted Building Consent for the current proposal however we did not indicate required fencing or means of alternative barriers and believe that these would have been highlighted when we applied for [a code compliance certificate]...

...We propose the following;

1. That our pool design will provide an integrated automatic pool cover which has been accepted as an alternative scenario before, as it can be walked upon...

2. ... the location of the property is distanced from the neighbouring properties, the closest being 2km away.

3. The spa pool will comply with the current requirements of [the Building] Code.

4. Both pool and spa will have covers on permanently when not in use due to the fact that the clients will want to maintain heat at all times.

⁸ I have not considered the authority’s decision to issue a building consent that included the pool on the consented drawings without evidence as to how compliance would be achieved with Clause F9.

- 3.8 On 18 April 2017 there was ongoing correspondence between the authority and the designer regarding the automatic pool cover. There was disagreement regarding whether or not an amendment to the building consent was required as the approved consent did not include pool fencing. The fact the building consent was issued without any detail regarding how compliance was to be achieved was also discussed.
- 3.9 On 19 April 2017 the designer requested advice regarding how to support an application for a waiver.
- 3.10 On 29 April 2017 the designer sent the authority information received from the pool installer regarding the safety of the automatic pool cover, the “Owners manual document” and the “Safety Standards certificate”. The designer explained once the pool design was resolved the information would be sent to the authority.
- 3.11 On 17 May 2017 the designer emailed the authority requesting it confirm if the information she previously sent was enough to “warrant a waiver for pool fencing”.
- 3.12 On 24 May 2017 the designer submitted an application for a waiver of the requirement for a pool fence. The application included a submission as follows:
- The property is located in a rural site approximately 1km⁹ from the nearest property. The access is through a secure gate accessed via private roads.
 - The applicant has adult children.
 - The climate dictates the automatic pool cover will remain on at all times when the pool is not in use to maintain the temperature. The automatic pool cover is also designed to limit access to the water for safety.
 - The automatic pool cover is similar to a fence in that it will prevent a child from entering the water because it sits above the water and can hold the weight of a child and an adult. There is no chance of slipping under the cover because it is secured by a recessed track within the pool wall.
 - Also, like a fence it excludes access to the pool and can only be opened by activating a motor with a key that is located adjacent to the pool above the reach of a child.
 - The automatic pool cover has been tested to ASTM Standard F 1346-91 as a safety cover for pools.
- 3.13 The application for a waiver included the following documents:
- a test certificate dated 14 May 1999
 - automatic pool cover promotional images
 - the automatic pool cover owner’s manual and safety information
- 3.14 From 25 May – 21 June 2017 there was correspondence between the designer and authority regarding the progress of the waiver application.
- 3.15 On 30 June 2017 the authority informed the applicant it would not issue a waiver of Clause F9. The authority listed its reason for refusal as:
- Application of a good standard but we would prefer [the Ministry] to approve waiver to provide a precedent for [authorities] to use in considering these.

⁹ I note the designer in a previous correspondence had stated there was a 2km distance from the nearest property.

It clarified the designer should instead apply for a determination, stating approval from the Ministry would provide useful guidance for other building consent authorities.

- 3.16 There was no further correspondence regarding the pool waiver until 6 April 2018 when the authority responded to the applicant's request for all correspondence related to the waiver application.
- 3.17 On 16 April 2018 the authority informed the applicant it had previously decided it "did not wish to make a call under the new pool legislation...and prefer you to get a determination from the Ministry".
- 3.18 The Ministry received an application for a determination on 23 April 2018.

4. The submissions

- 4.1 The applicant in response to a query from the Ministry stated as follows (in summary):
- the applicant sought for the requirement for a pool fence to be waived
 - the property is close to a river and it "seems pointless" to fence the pool when an unfenced river is in close proximity
 - the building consent was issued without the requirement for a fence, and now the authority retroactively required one.
- 4.2 The applicant included copies of the following documents:
- satellite images of the proposed building
 - drawings of the proposed building
 - the project information memorandum
 - the issued building consent
 - automatic pool cover data, including a safety certificate
 - correspondence between the designer and the authority.
- 4.3 The authority acknowledged the determination application on 22 May 2018.
- 4.4 On 21 June 2018 the authority supplied copies of the issued building consent, waiver application, and the correspondence between the parties. The authority also stated:
- A pool barrier was not consented because the designer asked for it to be considered separately at a later date.
 - The authority was not able to locate any correspondence where it had requested a pool fence during the consent processing stage. It acknowledged this may have been an oversight. However, it believed that had been superseded by the 5 March 2017 request from the designer to consider the pool as a separate item.
- 4.5 A draft determination was issued to the parties for comment on 5 September 2018.
- 4.6 On 18 September 2018 the authority accepted the draft determination.
- 4.7 On 21 September 2018 the applicant acknowledged the draft determination, but did not provide any further submission.

5. Discussion

5.1 General

5.1.1 Swimming pools and spa pools present a risk to young children. Clause F9 aims to prevent injury or death of young children involving residential pools, by requiring physical barriers that restrict access of unsupervised young children to the immediate pool area.

5.1.2 The functional requirement Clause F9.2 states:

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.

5.1.3 The means of meeting the functional requirement in relation to swimming pools is set out in the following performance requirements (in summary):

- F9.3.1 requires pools to have physical barriers that restrict access to the pool or immediate pool area by unsupervised young children;
- F9.3.2(a) requires pool barriers must surround the pool (and may enclose the whole or part of the immediate pool area);
- F9.3.3 which sets out general requirements relating to barriers and specific requirements for gates; (including that they automatically return to the closed position after use);
- F9.3.4 which sets out requirements relating to doors and windows that form part of a barrier to the pool or immediate pool area.

5.1.4 This determination concerns the use of an automatic pool cover without any other physical barrier to the pool or the immediate pool area.

5.2 Compliance of the automatic pool cover with Clause F9

5.2.1 A physical pool barrier is required to comply with Clause F9. Whatever form of barrier is chosen, to access the pool or immediate pool area to use the pool, the barrier must be breached. For a barrier to comply with the performance requirements of Clause F9 it must prevent the breach continuing longer than is required for simply accessing the pool or immediate pool area. This is clear in the requirement of Clause F9.3.3(c) in that gates in pool barriers must automatically return to the closed position after use (i.e. be self-closing), and Clause F9.3.4(a) in that doors in external walls opening into the immediate pool area must be either close automatically after use (i.e. self-closing) or emit an audible warning when the door is open (i.e. alarmed).

5.2.2 It is accepted that an automatic pool cover is a barrier and has the same effect as a pool fence, or door/window in an external wall when the automatic pool cover is closed. This was the position that was taken in Determination 2010/119¹⁰ which considered whether compliance was achieved when an automatic pool cover that complies with ASTM Standard F 1346-91 is used. That determination concluded the automatic pool cover as a barrier to restrict access of young children to the pool did not comply with Clause F4 Safety from falling requirements. Although the clauses relevant to pool safety have changed, I consider the reasoning behind that decision remain relevant in this case:

¹⁰ Determination 2010/119 The use of a cover as a barrier to a swimming pool (3 December 2010)

- when the automatic pool cover is opened so that people can use the pool, the requirements of the Building Code are no longer met
 - the automatic pool cover is not “self-closing” in the way that doors/windows and gates are required to be
 - the effectiveness of the automatic pool cover when the pool is not in use is reliant on the behaviour of people leaving the pool.
- 5.2.3 The Building Code places an emphasis on buildings and not management practices to achieve the performance requirements. The performance requirements of Clause F9 require the minimising of the length of time compliant barriers are breached to allow for access into the pool area to use the pool. A barrier compliant with Clause F9 would not allow a child to enter (or re-enter) the pool area if a supervising person was not present.
- 5.2.4 The operation of the automatic pool cover requires a person to take active steps to close it. Also, it must also be closed whenever there is no supervising person in the pool area, even if the person only leaves temporarily. I acknowledge there were assurances by the applicant that the automatic pool cover would remain closed when the pool was not in use. However, I consider the requirement for doors that self-close or are alarmed, and gates that self-close recognises that people are not infallible and the effectiveness of the barrier should not be reliant on their behaviour.
- 5.2.5 An owner with a compliant pool fence can leave the pool area and does not have to do anything positive to ensure continuing compliance with Clause F9 – the pool gate or door will close automatically behind them when they leave the pool area or the door alarm will remind them to close the door. With the automatic pool cover the person must take the positive step of always remembering to close the automatic pool cover to ensure compliance with Clause F9.
- 5.2.6 I maintain the view that reliance on the behaviour of people to reinstate the cover is not adequate in terms of meeting the performance requirements of the Building Code in relation to restricting access to the pool by young children. The automatic pool cover can be left open for longer than necessary and relies on the management practices of people to be effective.
- 5.2.7 Often homeowners do not want to install a fence around a pool for various reasons; because it negatively impacts the view, or will increase building costs. There is a balancing act inherent in the Building Code between usability of a building and ensuring the safety of all occupants. Sacrifices are required when a feature that increases risk is incorporated into a building’s design. In this instance the automatic pool cover does not adequately mitigate the risk posed by the pool and a physical barrier is also required to prevent injury or death of young children.
- 5.2.8 Taking into account the discussion above, I consider the use of automatic pool covers compliant with ASTM F1346-91 alone as a barrier to a residential pool does not meet the performance requirement Clause F9.3.1 of the Building Code.

Pool covers for small heated pools

- 5.2.9 While the spa pool is not in dispute, I consider it salient to comment on the allowance for pool covers, without any other physical barrier, for small heated pools.
- 5.2.10 A small heated pool is defined in the Act as:

Small heated pool means a heated pool (such as a spa pool or a hot tub) that—

- (a) has a water surface area of 5 m² or less; and
- (b) is designed for therapeutic or recreational use

5.2.11 Clause F9.3.2 states:

Barriers must either—

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

Limits on application

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.

5.2.12 When a pool qualifies as a small heated pool as defined in the Act and meets the limits on application for Clause F9.3.2(b) its barrier is permitted to be limited to a pool cover. The features of a small heated pool are generally not typical of a pool, particularly an in-ground pool.

5.2.13 The clause explicitly states a barrier that covers the pool itself, e.g. a pool cover, can only be used for small heated pools.

5.3 Waiver or modification

5.3.1 Having reached the conclusion that automatic pool covers do not comply with Clause F9, I now offer the following comments on the authority's refusal to grant a waiver or modification of Clause F9.3.1.

5.3.2 Section 67A provides for waivers or modifications of section 162C(1) or (2) if a territorial authority is satisfied the waiver or modification would not significantly increase danger to children under 5 years of age and takes into account of all the relevant circumstances (see Appendix A for relevant legislation).

5.3.3 The power to grant a waiver or modification recognises the Building Code cannot cover all possible situations, and provides the flexibility for authorities to address unusual sets of circumstances. However, authorities should not grant a waiver or modification if it would be unreasonable to do so.

5.3.4 Previous determinations have established a waiver or modification may be granted when 'compelling reasons must exist that support the view that a waiver is appropriate'¹¹, and it is reasonable to do so in the circumstances.¹²

5.3.5 Determination 2015/010¹³ noted the factors an authority should consider and balance regarding whether it is reasonable to grant the waiver. However, I note the authority chose to not grant the waiver not because of an assessment of these factors but instead because it sought for the designer to seek a determination. This is not an appropriate reason to refuse a waiver or modification of the Building Code. If the authority was unable to decide whether a waiver was reasonable it could have sought a determination itself on this matter.

¹¹ Determination 2012/049 Regarding the refusal to issue a code compliance certificate for a 16-year-old house with monolithic cladding (12 July 2012)

¹² Determination 2006/085 Refusal of a code compliance certificate for a building with a plywood cladding system at a house (4 October 2006)

¹³ 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)

5.3.6 To provide guidance to the parties, I have used the methodology established in the previous determination to assess whether it is 'reasonable' to grant a waiver in this case:

Factors	Comment
The extent and possible consequence of the non-compliance with the specific performance clause.	Potential access by unsupervised young children resulting in possible death or injury.
The availability of other reasonably practicable solutions that would result in the building work fully complying with the Building Code and associated costs.	There does not appear to be any practical reason why installing a fence around the pool or immediate pool area is not feasible.
Any special and unique circumstances of the building work subject to the waiver or modification.	The property is located in a rural location and is close to a river. I note Determination 2007/087 found the presence of other water hazards is not a reason for not protecting children against the hazard of the pool. It is my view that same reasoning applies in this case.
The extent to which the waiver will still be consistent with the purposes and principles of the Act.	The waiver would not be consistent with the purposes and principles of the Act. These place particular emphasis on the safety of people who use buildings and the role that household units play in the lives of the people who use them. The automatic pool cover may be left open, even if only temporarily, with no supervising adult and there is nothing to decrease the risk to young children.
The extent the waiver complies with the relevant objective and functional requirement of the specific clause of the Building Code.	The waiver would not be consistent with the objective of Clause F9.1 when compared to the risks associated with a compliant pool fence with gates or doors that automatically close or have alarms to remind users to close them.

- 5.3.7 The waiver application referred to the fact the applicant did not have young children. However, I am of the view children are likely to frequent any household at some time in the life of the building. Though a current owner or tenant may not have any young children or be likely to have friends or family with young children visit, houses change ownership frequently. I do not consider the current ownership situation is a sufficiently compelling reason to be considered as an extenuating factor.
- 5.3.8 Compelling reasons must exist that support the view a waiver or modification is appropriate. I do not believe sufficient reasons have been provided. Therefore, I am of the view a waiver or modification would not be appropriate to allow the use of an automatic pool cover in place of a compliant physical barrier to a pool where it is 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 the use of an automatic pool cover complying with ASTM F1346-91 without any other physical barrier to the pool or immediate pool area does not comply with Clause F9.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 26 October 2018.

Katie Gordon
Manager Determinations

Appendix A: The legislation and Standards

A.1 Relevant extract from the New Zealand Standard NZS 8500:2006

2.3 Requirements for new and existing pools

2.3.1 General

NZS 8500 has been developed on the basis that TAs will gradually seek an upgrade of exiting pools over a transitional period. It is expected that this transitional phase would be completed within 5 years of the publication of this Standard.

2.3.2 Specific requirements for pools

For new and existing pools at least one of the following requirements shall be met:

...

(f) the pool shall be enclosed by an isolation barrier where a wall of a house contains doors opening from the house to the immediate pool area (regardless of direction of door swing). Should the doors not be self-closing and self-latching, then a lockable door latch 1500 mm above finished floor level shall be provided on every opening door-set. In addition there shall also be:

(i) An automatic pool cover that complies with ASTM F1346-91, and

(ii) An alarm complying with UL 2017 capable of detecting unauthorised access from the house into the immediate pool area, and that when activated emits a sound of 85 decibels or more to be heard from the house.

...

A.2 Section 67A states:

Territorial authority may grant waivers or modifications in relation to means of restricting access to residential pools

(1)

A territorial authority may grant a waiver or modification of section 162C(1) or (2) (which requires residential pools to have means of restricting access by unsupervised children) if the territorial authority is satisfied that the waiver or modification would not significantly increase danger to children under 5 years of age.

(2)

In deciding whether to grant a waiver or modification under subsection (1), the territorial authority must have regard to all of the relevant circumstances (including the particular characteristics of the pool and the land on which it is situated).

A.3 Section 162C states:

162C Residential pools must have means of restricting access

(1) Every residential pool that is filled or partly filled with water must have physical barriers that restrict access to the pool by unsupervised children under 5 years of age.

(2) The means of restricting access referred to in subsection (1) must comply with the requirements of the building code—

(a) that are in force; or...