Determination 2024/069

Regarding the compliance of building work with Building Code Clause E1 Surface water

189 Tanners Point Road, Tanners Point, Bay of Plenty

Summary

This determination considers whether the building work carried out at 189 Tanners Point Road relating to surface water collection and disposal complies with clause E1.3.1 as it relates to the protection of 'other property'. This turns on whether surface water collected or concentrated by buildings or sitework at 189 Tanners Point Road avoids the likelihood of damage or nuisance to 195 Tanners Point Road.

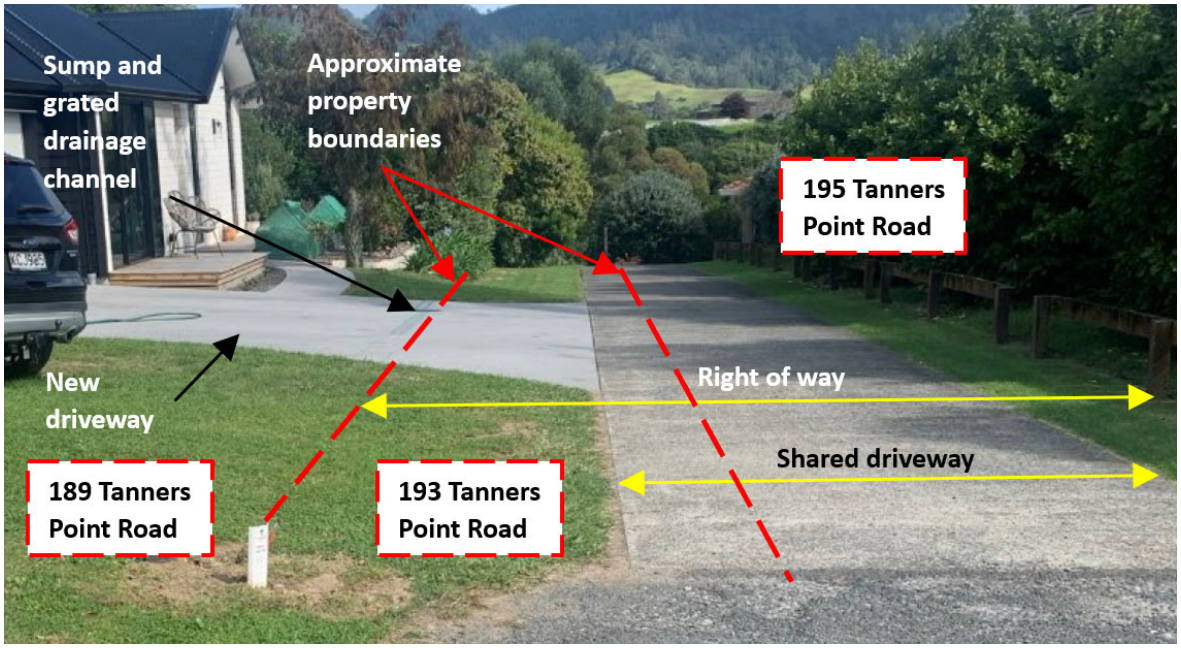

Figure 1: Property setting out and new driveway

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 (eg, 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, Peta Hird, for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment ("the Ministry").[1]

1.2. The parties to the determination are:

1.2.1. M and E Bruce, the owners of the property at 195 Tanners Point Road, who applied for the determination ("the applicants")

1.2.2. H and C Hornby, the owners of the property at 189 Tanners Point Road, where the building work took place ("the owners")

1.2.3. C Smith and A Stowe, the owners of the property at 193 Tanners Point Road, which is adjacent to both the applicants' and the owners' properties ("the neighbours")

1.2.4. Western Bay of Plenty, carrying out its duties as a territorial authority or building consent authority ("the authority").

1.3. The determination arises from the applicant's belief that a new concrete driveway ("the new driveway") at 189 Tanners Point Road, does not comply with the Building Code insofar as it concerns disposal of surface water with regard to avoiding the likelihood of damage or nuisance to other property.

1.4. The matter to be determined, under section 177(1)(a), is whether the building work complies with Building Code Clause E1 *Surface Water* (specifically clause E1.3.1) for the protection of other property.[2]

1.5. In deciding this matter, I must consider whether, in relation to the new concrete driveway, the surface water that is collected or concentrated by buildings or sitework at 189 Tanners Point Road is disposed of in a way that avoids the likelihood of damage or nuisance to other property.

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

[2] Section 7 defines 'other property' as '…any land or buildings, or part of any land or buildings, that are…not held under the same allotment; or…not held under the same ownership; and…includes a road'.

1.6. In determining this matter, I have not considered the authority's decisions to issue building consent BC96086 and a code compliance certificate for the building work, or any issues relating to easements or arrangements between the owners and neighbours regarding the right of way.

2. The building work and background

2.1. The applicants' property at 195 Tanners Point Road is situated on a rear section to the northwest of, and downhill from, the owners' property at 189 Tanners Point Road. These properties, along with the neighbours' property at 193 Tanners Point Road, are accessed along a right of way from Tanners Point Road. Refer to figure 2.

2.2. An existing shared concrete driveway ("the shared driveway") extends from Tanners Point Road along the 6m wide right of way to the applicants' and neighbours' properties. The shared driveway is 2.6m wide, with a surface area of approximately 130m².[3] Either side of the shared driveway are grass verges. Refer to figures 1 and 3.

Figure 2: Property setting out (not to scale)[4]

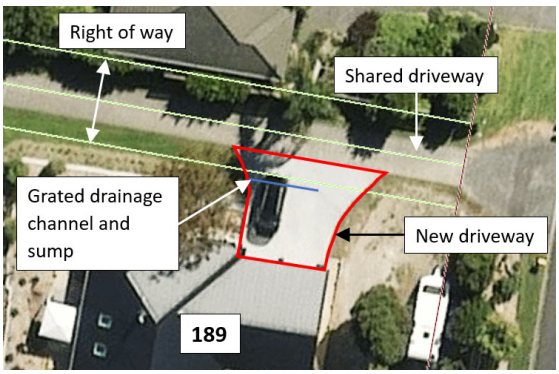

Figure 3: New driveway (not to scale)

2.3. The dwelling, new driveway, and the associated surface water drainage system were constructed under a building consent.[5] The building consent plans indicate compliance for Clause E1 *Surface water* was based on Acceptable Solution E1/AS1.[6]

[3] In the absence of any accurate on-site dimensions, the area has been approximated based on the width of the concrete surface being 2.6m (as advised by the applicants and the owners), a length of 42m as recorded on Record of Title SA53B/589 deposit plan 65502, and an allowance for the splayed tarmac surface closest to Tanners Point Road (refer to figures 2 and 3) which appears to be formed on road reserve.

[4] Figures 2 and 3 have been generated from the Western Bay of Plenty District Council maps available at https://www.westernbay.govt.nz/property-rates-and-building/maps (accessed 23 September 2024). Property boundaries are indicated in Figure 2 with the yellow-coloured lines.

[5] Building consent No. 96086.

[6] Acceptable Solution E1/AS1 (first edition amendment 11, effective on 5 November 2020 until 1 November 2024).

2.4. The new driveway provides access to a double-car garage attached to the owners' dwelling. The driveway is constructed of concrete and slopes downhill from a high point adjacent to the entrance to the garage, to a low point adjacent to the shared driveway. It also appears to have a slight crossfall from a high point on the east side, to a low point on the west side.[7]

2.5. The building consent plans include earthworks carried out in preparation for the construction of the building. Part of those earthworks comprises an area of "compacted certified fill" to the north and southwest of the site to form the building platform.[8] This fill is approximately 1.5m wide and extends along the full length of the dwelling at the north end, including part of the new driveway immediately adjacent to the garage entrance.

2.6. Set into the new driveway is a proprietary 130mm wide x 130mm deep grated drainage channel and type-1 surface water sump.[9] See Figure 3, marked by a blue line.

2.7. Building consent plan 06, and an associated as-built drainage plan, indicate the combination of grated drainage channel and sump are connected to a below ground surface drainage system laid around the north and west sides of the owners dwelling. The system also receives stormwater from downpipes and terminates at a connection point close to the southwest corner of the property.

2.8. The owners advise the surface area of the new driveway, between the garage and the grated drainage channel, is approximately 32m².[10] The remainder of the new driveway, between the grated drainage channel and the existing shared driveway, is approximately 15m².

2.9. The authority's inspection records indicate the new driveway, grated drainage channel and sump, were constructed sometime between July and September 2022.

2.10. On 12 May 2023, the applicants raised concerns with the authority about water runoff from the owners' property "throughout the building process", which "carried with it soil, sand and other loose debris … when subject to significant rainfall"

2.11. In correspondence to the applicants dated 9 June 2023, the authority confirmed it had considered the applicants' concerns, and stated:

> ...[it] agreed in principle that, based on the evidence provided [by the applicants], it appears that the channel drain and sump system serving the driveway of 189

[7] Building consent "section" detail on plan 07 does not indicate the presence of any reinforcement in the concrete. I have received no other specifications related to the construction of the new driveway.

[8] Building consent site plan 04.

[9] As detailed on building consent plans 04 and 06. 'Type 1' sump as described in Figure 8 of E1/AS1.

[10] In the absence of any information to the contrary, I have assumed the surface area of the new driveway excludes the surface area of the concrete path that extends from the front entrance to the dwelling to the edge of the new driveway. It is not clear if surface water collected or concentrated by the concrete path disperses onto the adjacent grassed area, or onto the new driveway, or a combination of both.

> Tanners Point Road does not meet the minimum performance criteria of Clause E1.3.1.

2.12. The authority wrote to the owners on 23 June 2023, stating it had:

> ... recently received new evidence that suggests possible non-compliance with the Building Code, specifically relating to Clause E1.3.1 (Surface Water) ... The evidence…indicates that surface water is flowing around the edges of the strip drain and sump installed on your driveway. This flow is causing nuisance to other properties and appears to surpass the volume of pre-construction levels. The evidence was gathered during light to medium rainfall which occurs much more frequently than the rainfall generated by a 1 in 10-year storm, which is the maximum rainfall allowed for under Clause E1 to protect other property.
>
> ...
>
> [The authority] now requires additional measures to be taken in order to reduce the amount of surface water causing nuisance to neighbouring properties...

2.13. On 21 July 2023, the authority advised the applicants that it "has been accepted that the lower section of [the new] driveway requires an additional strip drain to the existing sump".[11] In a further correspondence to the applicants on 29 August 2024, the authority stated:

> It is the opinion of the [authority] that if the channel drain is extended to the West to capture the driveway run off within 189 Tanners Point Road, then the building work undertaken as part of building consent 96086 can meet the performance requirements of Building Code Clause E1.

2.14. On 13 November 2023, an additional 1.6m grated drainage channel was installed by the owners to the west side of the new driveway and connected to the existing sump, bringing the total length of the channel to 4.9m. The as-built grated drainage channel does not extend the full width of the new driveway, but based on photographs appears to extend approximately three-quarters of the width.

2.15. The dispute over the surface water remained unresolved, and the applicant applied for this determination.

[11] The authority was referring to earlier correspondence between it, the owners, and the company that undertook the building work.

3. Submissions

The applicants

3.1. The applicants submit (in summary):

3.1.1. The surface water drainage arrangements at 189 Tanners Point Road are inadequate and contravenes clause E1 Surface water, specifically clause E1.3.1.

3.1.2. The "excessive surface water runoff" from the owners' property is an issue and started with the development of the building site.

3.1.3. The majority of surface water landing on the new driveway is being channelled down the shared driveway onto the applicants' property. Some of the water is directed onto a parking area at the bottom of the applicants' driveway (to the south corner of the dwelling), and some towards an existing drainage system outside the back door to the applicants' dwelling.[12]

3.1.4. The as-built grated drainage channel only extends a limited way across the width of the new driveway and is "of very limited use". The concrete catchment area is significant.

3.1.5. Extending the grated drainage channel has simply paid "lip service" to a remedy and has not "reduced the flow of water off [the owners] property". Much of the runoff from the left side of the new driveway is from surface water overflow from the ground between Tanners Point Road and the concrete area between the garage and the shared driveway.

3.1.6. The logical place for the grated drainage channel would be at the junction of the new driveway and the shared driveway.

3.2. The applicants provided various photos in support of their submission, as well as videos of surface water flowing across the new and existing shared driveways, that is then received at the applicants' property.

The owners

3.3. The owners submit (in summary):

3.3.1. The grated drainage channel was extended by 1.6m as requested by the authority.

3.3.2. Their property's "contribution of rain in normal conditions is minimal".[13]

[12] The applicants' driveway, to the east end of the shared driveway, is constructed of concrete pavers.

[13] I have assumed the owners were referring to the quantity of surface water collected or concentrated by the new driveway, that was reaching the shared driveway, was minimal.

3.3.3. There is no longer any discharge of debris from their property onto the shared driveway as their property is no longer a building site, and the landscaping has been completed.

3.4. The owners provided various photos of the completed building work, including the new driveway, grated drainage channel and sump. They also provided an undated video recording taken on "a heavy rain day"; the recording shows surface water from Tanners Point Road and the splayed tarmac surface at the east end of the right of way flowing onto the grass verges and the shared driveway.

The neighbours

3.5. The neighbours did not make a submission.

The authority

3.6. The authority submits (in summary):

3.6.1. Based on the size of the new driveway up to the property boundary, the as-built grated drainage channel and type-1 sump meet the minimum capacity requirements of Acceptable Solution E1/AS1 section 3.6.2 for a 1 in 10-year rainfall event,[14] and this in turn complies with clause E1.3.1.

3.6.2. It "must not overlook the amount of existing [shared] driveway serving [the applicant's] property with no drainage other than…sumps near [the applicants'] garage".

3.6.3. As a result of the applicants' concerns, an additional 1.6m grated drainage channel was added to the new driveway to control surface water runoff from the majority of the new driveway between the garage and the grated drainage channel. Only a small catchment area to the east side of new driveway on the owners' property would not be served by the grated drainage channel and the sump,[15] the remainder of the new driveway slopes towards the grated drainage channel and sump.

3.6.4. The part of the new driveway constructed between the grated drainage channel and the existing shared driveway, on the neighbours' property, is not served by any surface water drainage system.

3.6.5. The concrete path between the new driveway and the front door of the dwelling is not relevant to the surface water issue as the adjacent planted area provides adequate drainage.

[14] Section 3.6.2 of E1/AS1 refers to two different sumps suitable for areas up to 4500/I m² and 40,000/I m², where 'I' is the rainfall intensity for a storm with a 10% probability of occurring annually.

[15] The authority did not quantify the area concerned, but provided a marked-up photograph indicating those areas of the new driveway it believed would, and would not, be served by the extended grated drainage channel. I note the applicants dispute the extent of the area indicated by the authority.

4. Discussion

4.1. The matter to be determined is whether the building work complies with the requirement in clause E1.3.1 for the protection of other property.

4.2. The objective of clause E1 includes to 'safeguard…other property from damage, caused by surface water'. Its functional requirement is '**Buildings** and **sitework**[16] shall be constructed in a way that protects…other property from the adverse effects of surface water' [my emphasis].

4.3. The relevant performance requirement is clause E1.3.1:

> E1.3.1 Except as otherwise required under the Resource Management Act 1991 for the protection of other property, surface water, resulting from an event having a 10% probability of occurring annually and **which is collected or concentrated by buildings or sitework**, shall be disposed of in a way that avoids the likelihood of damage or nuisance to other property.

4.4. In deciding this matter, I must therefore consider whether, in relation to the new concrete driveway, the surface water that is collected or concentrated by *buildings* or *sitework* at 189 Tanners Point Road is disposed of in a way that avoids the likelihood of damage or nuisance to other property.

4.5. The dwelling itself is clearly a building, and therefore the obligations arise under clause E1.3.1 to manage the surface water collected and concentrated by the dwelling. The surface water management system includes a portion of the new driveway immediately adjacent to the dwelling; this receives some of the surface water from the cladding and areas immediately adjacent to the dwelling and transfers it to the drainage channel. The drainage channel forms part of the stormwater drainage system for the dwelling, it collects surface water from the area of the driveway adjacent to the dwelling and disposes of this water via the stormwater drainage system.

4.6. Because the channel drain does not extend the full width of the new concrete driveway, some of the surface water will reach the section of driveway constructed over the adjacent property (193 Tanners Point), and a portion of this is likely to reach the shared driveway/right of way. However, I consider the amount this contributes to water reaching 195 is minimal and does not meet the threshold of 'nuisance' for the purposes of E1.31.

[16] Site work means work on a building site, including earthworks, preparatory to, or associated with, the construction, alteration, demolition, or removal of a building.

4.7. I have considered the size and capacity of the as-built grated drainage channel, and in conjunction with data provided by the manufacturer,[17] I am satisfied it is adequate for the catchment area (ie 32m²) of the south part of the new driveway. I also note the authority also considered the size of the sump installed and concluded it complied with Acceptable Solution E1/AS1 (refer to paragraph 3.6.1).

4.8. In conclusion, I am satisfied the as-built grated drainage channel and sump are adequate in terms of the collection and disposal of surface water received from the dwelling, and so the building work complies with clause E1.3.1.

Additional comments

4.9. Clause E1.3.1 is limited to surface water collected or concentrated by buildings or sitework. However, creating impervious surfaces that don't fall under regulations as buildings or sitework may still require consideration to minimize the effects on other property. I note there are common law and other statutory provisions and local authority requirements (which are outside the ambit of a determination under the Act) that also concern the control of surface water.[18]

5. Decision

5.1. In accordance with section 188 of the Building Act 2004, I determine the building work in respect of the surface water collected and disposed of via the channel drain and sump, complies with clause E1.3.1.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 9 December 2024.

Peta Hird

Lead Determinations Specialist

[17] The manufacturer provided a calculation regarding the size and capacity of the grated drainage channel (capable to receiving 8 litres per second) based on a rainfall intensity of 100mm/hr (ie a 1-in-10 year storm), an impervious runoff coefficient of 0.8, and resultant surface area to be drained of 0.77 litres per second.

[18] See for example Speight J. *Gazley v Lower Hutt City Council* HC Wellington CP460/90, 20 November 1991, Neazor J. and sections 68(2A) and 76(2A) of the Resource Management Act 1991, and Western Bay of Plenty District Council Operative District Plan (Section 13 – Residential), and "Stormwater" guidance, available at www.westernbay.govt.nz (accessed on 11 October 2024).