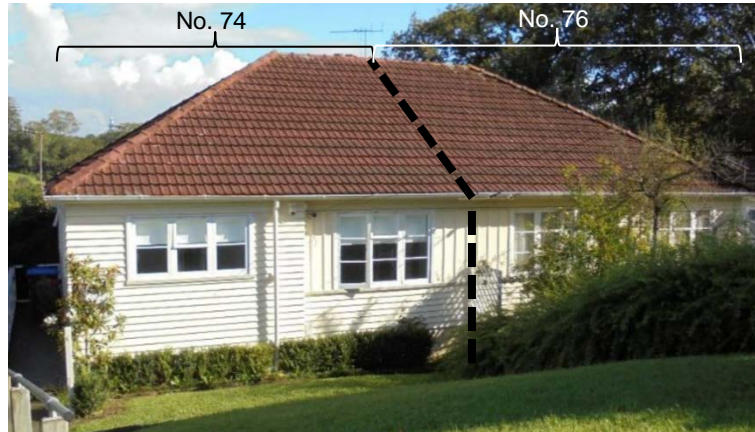




## Determination 2017/061

# Regarding the proposed demolition of half of a duplex building at 74 Spencer Street, Auckland and the compliance in respect of the remaining half at 76 Spencer Street, Auckland



### Summary

This determination considers whether there was sufficient evidence provided in a building consent application for the authority to grant the consent under section 49 of the Act where half of a duplex is proposed to be demolished. The determination considered whether the proposed building work complies with Clauses B1, B2, C3, E2, and H1 of the Building Code.

### 1. The matter to be determined

1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004<sup>1</sup> (“the Act”) made under due authorisation by me, John Gardiner, Manager Determinations and Assurance, 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 76 Spencer Street, M Al-Wahb, (“the applicant”) who is the owner of affected other property under section 176(e)(i) of the Act
- the owners of 74 Spencer Street, G Davis and S King (“the owners”) who propose to demolish their half of the duplex
- Auckland Council (“the authority”), carrying out its duties as a territorial authority or building consent authority.

<sup>1</sup> The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at [www.building.govt.nz](http://www.building.govt.nz) or by contacting the Ministry on 0800 242 243.

- 1.3 This determination arises from the owners' proposal to demolish half of an existing duplex and construct a new detached dwelling. The authority granted building consent No. B/2015/13386 on 4 April 2016 for the demolition of the owners' half of the duplex and construction of the new dwelling on the property. The applicant is concerned that the demolition work will affect the ongoing compliance of his half of the duplex.
- 1.4 The matter to be determined<sup>2</sup> is therefore whether the proposed building work will comply with the relevant provisions of the Building Code; being Clause B1 Structure, B2 Durability, C3 Fire affecting areas beyond the fire source, E2 External moisture, and H1 Energy efficiency, to the extent required by section 112 of the Act<sup>3</sup>.
- 1.5 In making my decision, I have considered the submissions of the parties, the report of the expert commissioned by the Ministry to advise on this dispute ("the expert"), and the other evidence in this matter.

## **1.6 Matters outside this determination**

- 1.6.1 Matters concerning the Resource Management Act 1991 ("the RMA"), and Property Law Act 2007, are outside my jurisdiction; this determination considers only matters that fall under section 177 of the Act.
- 1.6.2 I note the applicant has referred to the possibility that the existing cladding contains asbestos. Building work involving the removal of asbestos products is regulated under separate legislation and is outside my jurisdiction.

## **2. The building work**

### **2.1 The existing building**

- 2.1.1 The existing building is a duplex dwelling constructed over the boundary of 74 and 76 Spencer Street on a site that slopes steeply down from the front of the properties (east boundary) to the rear (west boundary).
- 2.1.2 The single storey timber-framed building is clad with timber weatherboards, with board and batten cladding to one elevation. A suspended timber floor sits on a concrete perimeter foundation, jack studs and concrete piles. The internal double skin brick party wall is supported by the concrete foundation. The roof cladding is concrete tile with purlins spanning over the party wall.

### **2.2 The proposed building work**

- 2.2.1 The proposed building work involves removing half of the duplex and excavating on the site at 74 Spencer Street ("the owners' property") to provide platforms for a new detached dwelling that steps down the site over four levels. The proposed building work includes a series of timber pole retaining walls along the north and south elevations. The applicant's property is north of the owners'.
- 2.2.2 The plans provided in support of the building consent largely detail the construction of the new dwelling. The only detail in the plans for work to the existing building is an engineering drawing for the party wall supports and a notation on the main level plan for the proposed new dwelling, which states:

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<sup>2</sup> Under sections 177(1)(a) and of the Act

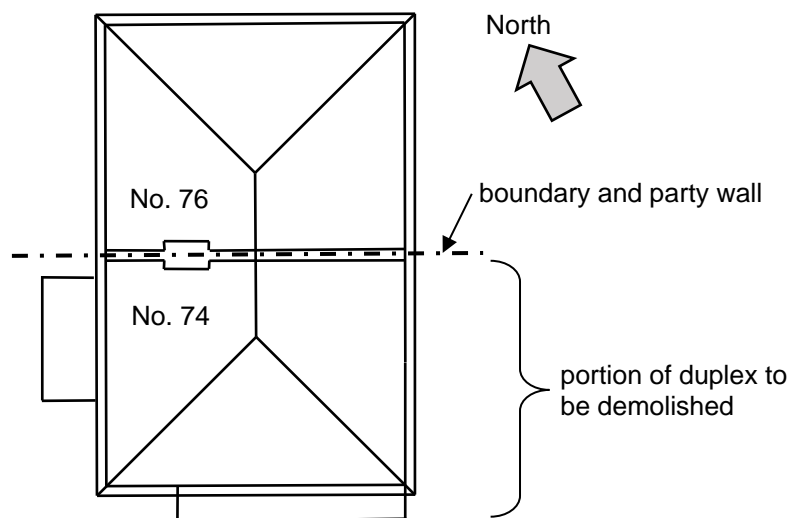
<sup>3</sup> In this determination, references to sections are to sections of the Act and references to clauses are to clauses of the Building Code.

Half of existing duplex to 74 Spencer St side to be demolished. Maintain both sides of double skinned brick party wall. Support as per engineers drawings [referenced]  
Apply [proprietary] waterproofing solution to seal exposed party wall.

2.2.3 The engineering drawing sets out the building work in two stages:

- investigation and demolition to determine the construction of the existing party wall where unknown; and to install temporary props (phase 1)
- construction of party wall support structure comprising steel columns encased in bored concrete piles (phase 2).

2.2.4 The proposed building work for phase 1 includes removing linings from the owners' half of duplex (No. 74) to confirm the construction of the party wall, and then demolishing the owners' half of the duplex. Once it has been demolished, investigations into the party wall foundations will be carried out by the structural and geotechnical engineers.



**Figure 1: Outline plan of existing building (not to scale)**

2.2.5 The proposed building work for phase 2 is constructing the underpinnings and the steel support structure to the existing party wall. During this phase, the geotechnical engineer will confirm that the soil parameters are as per the geotechnical report.

### 3. Background

#### 3.1 The first geotechnical report

3.1.1 The owners engaged a geotechnical engineer to provide a report to support a resource consent application for subdividing No. 72 and No. 74 Spencer Street, with No. 72 being split into three Lots. The purpose of the report was to 'investigate the site subsoils for the safe support of the anticipated building loads, and to assess the stability of the slopes'. It was required because the development was located on a site which the authority had identified as having a 'flooding hazard and geotechnical stability hazard'.

3.1.2 The report dated 11 October 2012 ("the first report") identified 'global instability' of the slope on the west side of the proposed lot (No.74), and recommended that a structural retaining wall and bored horizontal drains be constructed to retain and

drain the slope. The report considered that if this work was carried out the risk of instability would be “reduced sufficiently”.

- 3.1.3 As noted in an ‘Engineering Conditions for Subdivisions’ memo, the first report was peer reviewed when it was submitted to the authority. The memo stated that the work recommended in the geotechnical engineering report to stabilise the site, including retaining wall construction and subsoil drainage, was required to be carried out. In addition, a land use consent notice dated 26 March 2014 was registered against the Certificate of Title for Lot 2 DP 469877<sup>4</sup> that stated (emphasis added):

The property is subject to a land stability hazard. A chartered professional or experienced engineer in geotechnical engineering and **familiar with the recommendations of the [first report] by the [Geotechnical engineering firm] dated 11<sup>th</sup> October 2012**; is to be engaged to design, supervise, and where necessary, certify any further development and/or structures and/or earthworks within areas identified in the above geotechnical report.

### 3.2 The second report

- 3.2.1 The second report, dated 15 December 2014 (“the second report”), was commissioned to support the proposal for the demolition and construction of the new dwelling at No. 74 Spencer Street. The purpose of the report was to ‘assess subsoil conditions, analyse site stability and to provide recommendations for building foundations and the satisfactory development of the property.’ Under a section titled “Existing Geotechnical Information” the second report states ‘We are not aware of any previously existing geotechnical information relating to this site.’

- 3.2.2 The report discussed the proposed development, subsoil conditions and site stability where it noted (emphasis added):

Based on the results of our analysis, provided the **recommendations outlined in this report are followed and the very steep cut face, located adjacent to the western property boundary is adequately retained**, we consider the site to be currently stable and generally suitable for construction of the proposed new dwelling.”

- 3.2.3 The report made recommendations on the following:

- Earthworks, Cuts and Fills – noting that they ‘understand that no excavation will take place immediately adjacent to the remaining half of the duplex. If excavation is required the matter should be referred back...for further recommendations.’
- Foundations, surface water control.
- Retaining walls – reiterated that retaining walls should be provided to support the existing 2.0m high cut face located adjacent to the western property boundary.
- Plan review, inspections during construction.

### 3.3 The building consent and the applicant’s concerns

- 3.3.1 On 4 April 2016, the authority issued building consent No. B/2015/13386 for the construction of the new dwelling on the owners’ property.
- 3.3.2 On 4 May 2016, a lawyer acting on behalf of the applicant wrote to the authority regarding the issue of the building consent. The lawyer requested the applicant be

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<sup>4</sup> Legal description of No. 74

notified of the approval of a building consent in relation to works required to maintain weathertightness, recladding of the exposed section of the duplex, and reinstatement of the party wall.

- 3.3.3 The lawyer requested a geotechnical investigation be carried out before the demolition began, to ensure the ongoing stability of the duplex and the land, as well as a similar assessment by a structural engineer in relation to the duplex itself during and after the completion of the proposed work.
- 3.3.4 The authority responded to the applicant's lawyer on 6 May 2016, noting that a "pre-start meeting" would be held with the contractor, engineers and a senior officer of the authority 'to ensure the scope of work and methodology of construction satisfies the [authority] prior to any work commencing'.
- 3.3.5 The authority also advised that the building consent was issued with the following advice notes:
- a. Geotechnical engineer to certify ground conditions before pouring concrete.
  - b. Structural engineer to certify the structural steel supports and connections.
  - c. The applicator of the waterproof membrane to provide a Producer Statement confirming compliance of the application.
- 3.3.6 In regard to the roof, the authority noted:
- ...it is proposed this will be cut back to the [party] wall line thus not overhanging the boundary. Proprietary flashings or barge capping will be used to ensure it complies with the relevant building code requirements. This will also be discussed at the pre-start meeting to ensure the proposed details will work onsite with any other work needed to be carried out to finish the wall in a weatherproof and compliance state.
- 3.3.7 It appears that the applicant continued to raise his concerns with the authority. The authority wrote to the applicant by email on 3 October 2016 regarding issues relating to the RMA and confirming that 'full engineering oversight' was proposed during demolition and a senior building inspector would be on site to observe. In regard to the steel supports to the party wall the authority said:
- The [owners'] agent has now clarified that the steel structures are only 800mm above the ground and attached to the common wall.
- 3.3.8 On 19 October 2016 the applicant emailed the authority, noting that the engineer's drawing for the steel supports did not show the structure was only 800mm above ground, and that there was no producer statement on file for the waterproofing to the party wall. The applicant also noted the building consent issued to the owners did not provide sufficient detail for the remaining party wall, and provided a sample of a drawing from another property where half of a duplex was demolished. The applicant stated that the building consent should contain details regarding flashing, sealing, insulation, cladding, fire rating, painting, etc.

## **4. The submissions**

- 4.1 On 23 August 2016 the applicant laid a complaint with the Ministry under section 200 regarding the authority's processing of the building consent and lack of notification of the land use consent. On 2 September 2016 I advised the applicant that the issues relating to the RMA are outside my jurisdiction, but in regard to the technical issues raised, the most appropriate course of action was to apply for a determination.

- 4.2 The Ministry received the application for a determination on 20 December 2016. In a submission supporting the application, the applicant submitted that an assessment of the party wall and the building as a whole should be carried out before demolition begins, along with a geotechnical assessment of the applicant's property to ensure that the site works and building work do not cause damage to his property. The applicant also noted that the remaining party wall will change in terms of its function from an internal common wall to an exterior wall.
- 4.3 The applicant set out his concerns regarding the documentation supporting the building consent with regard to compliance with Clauses B1 Structure, E2 External moisture, C3 Fire affecting areas beyond the fire source, and H1 Energy efficiency. I have summarised the applicant's initial submission in Table 1.
- 4.4 The applicant also listed possible contraventions of Clauses G4 Ventilation, and D1 Access in his submission (the latter in relation to access to the party wall for maintenance). I do not consider that the provisions of these clauses apply in respect of the proposed building work. The compliance of the Clause G4 is not affected by the proposed work; there is no ventilation proposed or existing through the party wall. Clause D1 is not applicable because there is no requirement for access to be provided along the party wall.
- 4.5 The applicant provided copies of:
- engineering conditions for subdivisions memo dated 12 December 2012 for 71-74 Spencer Street
  - geotechnical investigation report for 72-74 Spencer Street dated 11 October 2012 ("the first report")
  - geotechnical investigation report for 74 Spencer Street dated 15 December 2014 ("the second report").
- 4.6 On 30 and 31 January 2017, I requested a submission from the authority in regard to:
- the height of the steel structure supporting the party wall, which was confirmed in an email from the authority dated 3 October 2016 to be 800mm above ground, but is shown in the building consent documentation as extending the full height of the wall
  - clarification of the details for the remedial work proposed to the external envelope of the existing and remaining half of the duplex, such as making good the existing party wall and roof junctions and relevant specifications.
- 4.7 The authority responded on 8 February 2017, commenting on issues regarding compliance, which I have summarised in Table 1, and with annotations made to the application for determination as follows:
- The support structure to the party wall runs the full height of the wall comprising concrete piles a 'minimum 4m deep' with an embedded steel column connected to a steel beam above fixed to the wall.
  - In residential construction, the authority does not seek a peer review. However, the documentation was sent to the authority's engineering team for reviewing the 'proposed specific design to establish structural stability of the wall'.
- 4.8 Further submissions were received from the applicant on 14 February and 17 March and from the authority on 16 March 2017. I have summarised those submissions in Table 1 as they relate to the specific code clauses.

**Table 1: summaries of parties submissions**

Party	Comments
<b>Clause B1 - Structure</b>	
Applicant	<ul style="list-style-type: none"> <li>No structural assessment has been made of the existing building.</li> <li>The proposed structures to support the party wall are not adequate, with half of the duplex demolished and inadequate support, the party wall and chimney are free to fall out.</li> <li>There is a lack of detail regarding the “temporary support works”.</li> <li>Noted the contradiction that the party wall support structure was 800mm high and also full height.</li> <li>The geotechnical report provided for the resource consent application only involved the owners’ property, and the impact on the stability of the applicant’s property has not been considered.</li> <li>Questioned why the second report was not reviewed, as the first report had been.</li> <li>The second report stated that they were not aware of any previous geotechnical information.</li> <li>Queried whether the building consent complied with the restrictions imposed by the land use consent notice.</li> </ul>
Authority	<ul style="list-style-type: none"> <li>The support structure has been reviewed by the authority.</li> <li>Peer review was requested at subdivision stage.</li> <li>For a residential consent, only the foundations are assessed to ensure the recommendations of the geotechnical report have been met.</li> <li>The structural stability was assessed based on the information provided.</li> <li>The wall support structure ‘meets the structural stability requirements under B1/AS1’ (<i>sic</i>).</li> </ul>
<b>Clause B2 - Durability</b>	
Applicant	<ul style="list-style-type: none"> <li>There is no access for maintenance of the party wall or the support structure.</li> <li>No specification for steel protection is provided.</li> </ul>
Authority	<ul style="list-style-type: none"> <li>The selected materials and products along with proposed construction methodologies are “regarded as having demonstrated appropriate durability”.</li> <li>Durability has been considered by the owners’ engineer.</li> </ul>
<b>Clause C1 – C6 Fire safety</b>	
Applicant	<ul style="list-style-type: none"> <li>There is no information regarding how the remaining building is to be protected from fire given the new dwelling will be less than one metre from the existing party wall. (C3)</li> <li>Existing party wall is closer than 1m to the proposed building and is required to be fire rated.</li> <li>Questioned how the authority could be confident the party wall had a 30 minute fire rating.</li> </ul>
Authority	<ul style="list-style-type: none"> <li>The proposed building will have more than 1m of separation from the applicant’s building but not from the party wall; however, the party wall is double skin brick and will provide 30 minutes fire rating to satisfy the Building Code.</li> <li>No change proposed to double skin brick party wall.</li> <li>Support structure will increase the structural stability for post fire loads.</li> </ul>

<b>Clause E2 – External moisture</b>	
Applicant	<ul style="list-style-type: none"> <li>The building consent documentation does not adequately detail how the weatherboards and roofing will be made good or how the exposed brick wall made weatherproof.</li> <li>There is a lack of specification, manufacturer literature and appraisals included within the building consent.</li> </ul>
Authority	<ul style="list-style-type: none"> <li>The authority commented that the notes on drawing C2.01 provide for waterproofing to the existing double brick wall.</li> <li>The conditions of the building consent require a producer statement and product warranty for the waterproofing membrane to be provided.</li> <li>The proposed membrane can be revised by an amendment if required.</li> </ul>
<b>H1 – Energy efficiency</b>	
Applicant	<ul style="list-style-type: none"> <li>There will be an impact on the ongoing compliance of the remaining property with Clause H1.</li> <li>Change of thermal performance as the party wall will go from an internal to an external wall</li> </ul>
Authority	<ul style="list-style-type: none"> <li>This clause does not apply.</li> <li>The party wall was always considered an external wall.</li> </ul>

## 4.9 The draft determination and submissions in response

- 4.9.1 A draft determination was issued to the parties for comment on 28 April 2017. The draft concluded that the building work will comply with Clause C3 but there was insufficient evidence to establish on reasonable grounds that the building work as proposed will comply with Clauses B1, B2, E2, and H1 of the Building Code.
- 4.9.2 The authority responded to the draft determination on 16 May 2017, noting it did not accept the draft and providing the following additional comments:
- In regard to Clause B1 and B2 in terms of the steel structure supporting the party wall, the authority relied on the Producer statement - construction review (“PS1”) from the structural engineer employed by the owners. This was accepted as it was in accordance with the authority’s “Building Control Quality Assurance System”.
  - The owners had provided information regarding the waterproofing to the party wall, and although the ‘proposed product was unsuitable’, the authority states there may be “appropriate” products that could be incorporated into the building consent through an amendment.
- 4.9.3 The applicant did not accept the draft determination and in a submission dated 18 May 2017 and made the following comments (in summary):
- More detail was sought in the discussion regarding Clause E2 to avoid any “misunderstanding” by the authority.
  - The authority had interpreted the party wall’s compliance with Clause E2 as being satisfied by ‘simply “applying waterproofing”’.
- 4.9.4 The owners responded to the draft on 25 July 2017, noting they considered the issue to be ‘a matter for the other parties’ (the authority and the applicant).
- 4.9.5 I have taken the parties’ submissions into account and amended the determination as appropriate.



## **5. The expert's report**

### **5.1 General**

- 5.1.1 As mentioned in paragraph 1.5, I engaged an independent expert who is a Chartered Professional Engineer to assist me. The expert inspected the site on 30 March 2017, providing a report on 7 April 2017 which was sent to the parties on the same day.
- 5.1.2 The expert reviewed the building consent documentation, including the architectural and structural drawings, and the first and second geotechnical reports. The expert's report, based on a desk top review and site inspection, addressed the protection of the adjoining property at 76 Spencer Street, including geotechnical considerations of the excavations proposed.

### **5.2 Site inspection**

- 5.2.1 The expert carried out a site inspection of both properties, noting that the subfloor storage areas in both buildings were easily accessible and made the following observations:
- There was cracking to the concrete subfloor walls.
  - Concrete paths adjacent the duplex are cracked, and have settled and pulled away from the subfloor walls.
  - The in-situ concrete subfloor party wall can be seen with piers for the chimney and bearer support.
- 5.2.2 The expert noted that the subfloor ground levels appear to be similar between No. 74 and No. 76, except for an area where the party wall is retaining some ground. The level of cracking to the subfloor walls and ground, along with the separation of the paths from the building, indicated that ground movement has been occurring.

### **5.3 Review of the building consent documentation**

- 5.3.1 The expert reviewed both geotechnical reports and noted that while the first report addressed overall site stability issues (see paragraph 3.1.2), and gave general recommendations for any future development, it did not specifically address development of the site at 74 Spencer Street or identify issues with any existing buildings.

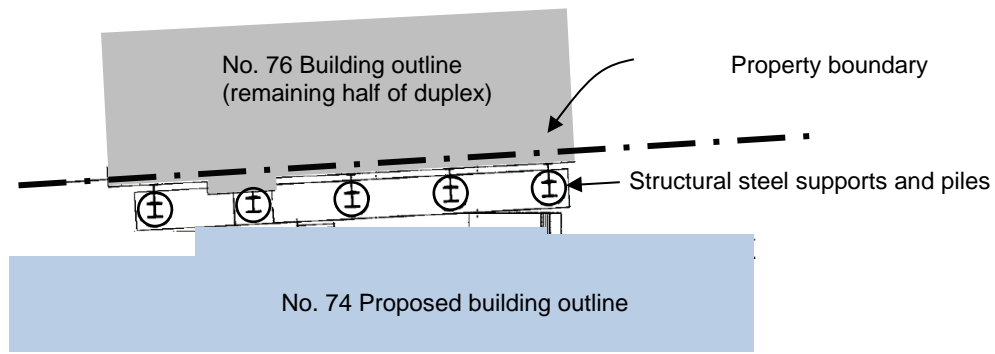
The expert identified statements in the second report which he considered significant in light of the issues raised by the applicant, namely the report's author was not aware of any previously existing geotechnical information relating to the site, the maximum cut depth being 1.0m and fill depth 1.5m, and that the no excavation was to take place immediately adjacent to the remaining half of the duplex but if excavation was required the matter should be referred back to the report's author for further recommendations.

- 5.3.2 The expert considered that the land use consent notice on the title for No. 74 regarding the first report should have been acknowledged in the second report. (I note that the first report was not included in the building consent documentation, but the report is identified as part of the land use consent notice on the title.)
- 5.3.3 The architectural and structural drawings propose excavation immediately adjacent to the remaining half of the duplex, and it does not appear that the matter was referred back to the author of the second report.

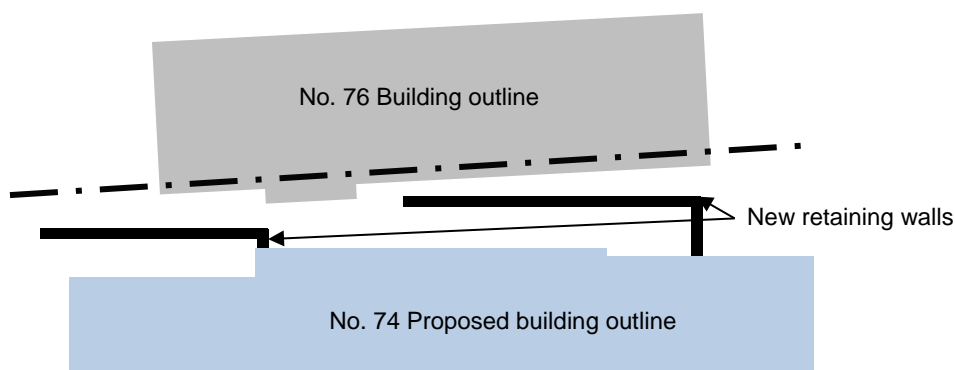
- 5.3.4 The expert reviewed the architectural and structural drawings, and noted that there was contradictory and missing information from both:
- Architectural drawings propose timber pole retaining walls adjacent to the boundary with No. 76; however, this is in conflict with the proposed support structure to the party wall (see Figures 2 and 3).
  - The structural drawings propose piles for the support structure in a location that will conflict with the location of the timber retaining walls.
  - Excavation for the retaining walls as consented will undermine the party wall foundations and underpinning will be required; the underpinning work is not shown.
  - There is a lack of documentation for the design and detailing of the timber pole retaining walls.
  - The excavations for the party wall support structure are proposed immediately adjacent to the remaining half of the duplex, which contradicts the assumptions of the second report (see Figures 2 and 3).
  - The expert also noted that there is ready access to the subfloor space of No.74, and there is no reason why the information for the design of the underpinning, lateral support, and retaining walls could not have been obtained prior to demolishing half the duplex.
- 5.3.5 The expert also identified that the consented building work contradicted the second report. The second report qualified its findings on an understanding that no excavation was proposed immediately adjacent to the remaining half of the duplex; however, the consented drawings clearly show earthworks within a metre to the boundary and immediately adjacent the party wall support structure.

## **5.4 Expert's conclusion**

- 5.4.1 The expert stated that careful consideration of the conflicting drawings will need to be carried out regarding the interaction between underpinning the existing party wall foundation, construction and excavation for the timber pole retaining walls, and the piles for the support structure to the party wall.
- 5.4.2 The expert observed that excavation on the boundary adjoining the common party wall should have been referred back to the author of the second report for their comment and recommendations.
- 5.4.3 The expert concluded that there was insufficient and inadequate information in the building consent documentation to demonstrate compliance with Clause B1 in relation to the underpinning and support of the party wall between No. 74 and No. 76 including the adjoining proposed retaining walls.



**Figure 2: Building outline based on the consented structural drawings**



**Figure 3: Building outline based on the consented architectural drawings**

## 6. Discussion

### 6.1 The legislation

6.1.1 Section 17 of the Act requires all building work to comply with the Building Code to the extent required by the Act. The proposed building work includes the demolition of half of the duplex, the construction of a support structure to the party wall, and the closing in and making good the now exterior party wall.

6.1.2 Section 112 of the Act also applies to building consents involving alterations to existing buildings, and provides:

(1) A building consent authority must not grant a building consent for the alteration of an existing building, or part of an existing building, unless the building consent authority is satisfied that, after the alteration,—

...

(b) the building will,—

(i) if it complied with the other provisions of the building code immediately before the building work began, continue to comply with those provisions; or

(ii) if it did not comply with the other provisions of the building code immediately before the building work began, continue to comply at least to the same extent as it did then comply.

6.1.3 In this case, the building that is subject to the proposed alterations is constructed across the boundary of two properties, and under section 112 the compliance of the remaining half of the duplex after the alteration must be considered. Therefore, in

regard to the application for this determination, it is the clauses that relate to the ongoing compliance of the remaining half of the duplex that I must consider, in particular Clauses B1, E2, and H1.

6.1.4 Section 49 states that an authority:

...must grant a building consent if it is reasonably satisfied on reasonable grounds that the provisions of the Building Code would be met if the building work were properly completed in accordance with the plans and specifications that accompanied the application.

6.1.5 Accordingly, I must decide whether there was sufficient information before the authority to be satisfied on reasonable grounds that the building would comply to the extent required by the Act as outlined above.

## **6.2 Clause B1 Structure**

6.2.1 Clause B1.3.6 provides:

Sitework, where necessary, shall be carried out to:

- (a) provide stability for construction on the site, and
- (b) avoid the likelihood of damage to other property.

6.2.2 The applicant has concerns that the geotechnical information provided in the consent documentation has not considered how the proposed building work will affect his half of the duplex. The authority stated that as part of the building consent process, it reviewed the foundations to the proposed house to ensure they were designed according to the recommendations of the second report.

6.2.3 The second geotechnical report noted there was 'no pre-existing information' and did not review the information about land instability identified in the first report. In my view this places the second report's findings in doubt. And it appears that the recommendations in the first and second geotechnical reports regarding works to address the stability of the site have not been acted upon.

6.2.4 The consented building work also contradicts the second report. The second report qualified its findings on an understanding that no excavation was proposed immediately adjacent to the remaining half of the duplex; however, the consented drawings clearly show earthworks within a metre to the boundary and immediately adjacent the party wall support structure.

6.2.5 The recommendations of the second report, which included referring the proposal back to the author if excavations were proposed adjacent to the boundary of the remaining half of the duplex, have not been followed, drawings provided lacked coordination, and there was proposed building work that lacked details (refer paragraph 5.3.4). These issues and the inconsistencies in information needed to be addressed during the consent processing stage.

6.2.6 It is proposed that the support structure to the party wall will be constructed in two stages: investigation and demolition, then construction, with geotechnical and structural engineers inspecting the site after demolition to investigate the party wall. I note the expert identified that the subfloor is easily accessible and the information for the design of the underpinning, lateral support and retaining walls could have been obtained.

6.2.7 The authority has stated that it relied on the PS1 provided by the structural engineer to establish compliance with Clause B1. As I have stated in previous

determinations<sup>5</sup>, an authority is entitled to accept a producer statement at its discretion in the belief that the author is credible; however, the receipt of a producer statement does not lessen the authority's liability in establishing code compliance.

- 6.2.8 The issues with the information provided in support of the building consent application, as discussed in paragraphs 6.2.2 to 6.2.5, raises concerns regarding the authority's reliance on the PS1. The building work does not follow the recommendations of the two geotechnical reports, and in particular contradicts the recommendations regarding excavation adjacent to the remaining half of the duplex, and there is contradictory information and a lack of detail in the drawings provided.
- 6.2.9 I conclude that there was insufficient evidence in the building consent documentation to be satisfied on reasonable grounds that the building work would comply with Clause B1.3.6.

### **6.3 Clause B2 Durability (insofar as it relates to Clause B1.3.6)**

- 6.3.1 Clause B2.3.1 requires building elements that provide structural stability to the building must, with only normal maintenance, continue to satisfy the performance requirements of the Building Code for the life of the building, being not less than 50 years (or for the specified intended life of the building if stated).
- 6.3.2 The applicant has questioned whether there was any corrosion protection proposed for the structural steel to the structure supporting the party wall to ensure it meets the durability requirements of Clause B2.
- 6.3.3 According to the consent specification, the steelwork is proposed to be galvanised. The specification also refers to several Standards in regard to the protection of the steelwork; however, I note that of the standards referred to, AS/NZS 1627.4 and AS/NZS 1627.9 have both been withdrawn and AS/NZS 2312:2002 has been superseded.
- 6.3.4 To identify the steelwork that is proposed to be galvanised the specification says to "Refer to drawings"; however, the drawings do not show that any steel members in the party wall support structure are to be galvanised.
- 6.3.5 I consider there is inadequate information regarding the corrosion protection of the steel members to the party wall support structure to establish compliance with Clause B2.3.1 insofar as it relates to Clause B1.3.6.

### **6.4 Clause C3 Fire affecting areas beyond the fire source**

- 6.4.1 The applicant is concerned that the party wall will not provide adequate fire rating, and that the external wall of the proposed dwelling is less than 1m to the existing party wall and so should be fire-rated.
- 6.4.2 The relevant functional requirement, Clause C3.3 states:
- Buildings must be designed and constructed so that there is a low probability of fire spread to other property vertically or horizontally across a relevant boundary.
- 6.4.3 The relevant performance requirement in Clause C3.7 is:

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<sup>5</sup> Determination 2010/096 Refusal to issue a code compliance certificate for fire repairs to a house at 2/29 Maxine Place, St Helliers, Auckland (Department of Building and Housing) 18 October 2010, Determination 2013/053 Regarding the refusal to issue a code compliance certificate due to the lack of a producer statement for drainage work to a house at 126 Abbot Street, Invercargill (Ministry of Business, Innovation and Employment) 17 September 2013, and Determination 2016/003 Dispute about the issue of building consents and code compliance certificates and the building code compliance of building work for commercial buildings 2-5 at 2 Barry Hogan Place, Christchurch (Ministry of Building, Innovation and Employment) 4 February 2016.

External walls of buildings that are located closer than 1 m to the relevant boundary of the property on which the building stands must either:

(a) be constructed from materials which are not combustible building materials, or

...

(c) for buildings in Importance Levels 1 and 2, be constructed from materials that, when subjected to a radiant flux of 30 kW/m<sup>2</sup>, do not ignite for 15 minutes

- 6.4.4 The proposed house is over 1m from the relevant boundary, but the support structure to the party wall and the timber retaining wall are closer than 1m.
- 6.4.5 I consider that double skin brick and structural steel are non-combustible building materials and along with the timber retaining wall will meet the performance requirements of Clause C3.7.

## 6.5 Clause E2 External moisture

- 6.5.1 Clause E2.3.2 applies in respect of the performance of the party wall after the proposed demolition. Clause E2.3.2 requires:
- Roofs and exterior walls must prevent the penetration of water that could cause undue dampness, damage to building elements, or both.
- 6.5.2 The plans provided in support of the building consent largely detail the construction of the new dwelling. The only references in the plans for building work to the existing building is an engineering drawing for the party wall supports, which sets out the proposed building work (refer paragraph 2.2), and a notation on the main level plan for the proposed new dwelling which states that a named 'waterproofing solution' would be used to seal the exterior face of the now exposed party wall.
- 6.5.3 There are no details that show how the outer edges of the party wall are to be made weathertight at the junctions of the party wall, the roof and the remaining walls. There is no membrane specification, or manufacturer's installation instructions for the proposed waterproofing product referenced in the consent documentation.
- 6.5.4 I consider that it is unclear how compliance with Clause E2 was to have been achieved based on the information provided in the building consent application, and there is insufficient information to establish on reasonable grounds that the building work will comply with Clause E2 of the Building Code: the test under section 49 has not been met. Further information on how the roof and wall junctions will be made weathertight is required, along with the waterproofing of the party wall itself.
- 6.5.5 In regard to the authority's submission that the 'proposed product was unsuitable' but an appropriate product could be incorporated by way of an amendment to the building consent, I note that the responsibility lies with the authority to ensure there is sufficient evidence in a building consent application to show how compliance with the Building Code will be established before granting a building consent; it is unreasonable to rely on amending a consent as a remedy for unsubstantiated information in the consent documentation.

## **6.6 Clause H1 Energy Efficiency**

6.6.1 The relevant performance Clause is H1.3.1:

The building envelope enclosing spaces where the temperature or humidity (or both) are modified must be constructed to—

(a) provide adequate thermal resistance;

6.6.2 The performance obligation in H1.3.1 is to the “building envelope”, and it is the external walls of the duplex to which this currently applies – there is currently no obligation on the party wall in respect of thermal resistance.

6.6.3 The proposed demolition of half of the duplex would result in the now exposed party wall becoming part of the “building envelope” as it will become an external wall, thereby creating an obligation under Clause H1.3.1 where previously there was none.

6.6.4 I note there was unlikely to be any thermal movement across the boundary wall between the two halves of the duplex as constructed, but that after demolition the double skin brick party wall be exposed to the exterior and a cooler environment; in practical terms this is likely to worsen the thermal efficiency of the applicant’s remaining half of the duplex overall.

6.6.5 The building consent documentation does not address the altered thermal envelope of the building and how compliance with H1.3.1 will be established. I consider there is insufficient information to establish on reasonable grounds that the proposed building work will comply with Clause G1.3.1 to the extent required by section 112(1)(b).

## **6.7 Conclusions**

6.7.1 It is unclear how accurate the second report is for the proposed building work because it has not referenced previous geotechnical information, and the excavations are taking place adjacent to the boundary. The building consent documentation contradicts itself, with insufficient and inadequate information regarding the party wall support. I consider that the building consent documentation does not establish that compliance with Clause B1 will be achieved.

6.7.2 I consider that there is insufficient evidence that the steel support structure will comply with the requirements of Clause B2 insofar as it applies to Clause B1.

6.7.3 I consider that the proposed building work and existing party wall will meet the requirements of Clause C3 relating to fire spread over the relevant boundary.

6.7.4 There is not sufficient information for how No.76’s exposed roof and wall claddings will be treated, and how the party wall will be made waterproof. I do not consider that the building consent documentation establishes that the building work will comply with Clause E2.3.2. Further detail to establish how the proposed building work will comply with the Building Code should be provided.

6.7.5 I consider that there was insufficient information to establish how the requirements of Clause H1.3.1 were to be met in respect of the party wall.

6.7.6 I am of the view that there was insufficient evidence that the building work, if built in accordance with the plans and specifications, would comply with the Building Code.

## **7. The decision**

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

- there is insufficient evidence to establish on reasonable grounds that the building work as proposed in building consent No. B/2015/13386 will comply with Clauses B1, B2, E2, and H1 of the Building Code
- the building work proposed in building consent No. B/2015/13386 will comply with Clause C3 of the Building Code.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 2 August 2017.

John Gardiner  
**Manager Determinations and Assurance**